**JULY 2016** 

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## These excuses, how they served me so well

All you need is a workable excuse. Buying a new television should only ever be a pleasure, but more often than not we need to rationalise the outlay - if only to ourselves.

This summer presents the perfect justification. Not only are there weeks and weeks of lovely high-definition sport just around the corner, but the current state of the TV art is profoundly impressive. Witness this issue's **five brand-new** TVs, one from each of the Big Five TV brands (p40) - at least one of them has a decent shot at the title 'Best TV We've Ever Seen'. And, once you've talked yourself into the outlay, we've de-jargoned the jargon and explained how to get the very best from your new TV.

So while you might need an excuse to get your

credit-card out, you've no excuse for not getting your money's-worth.



## My product of the month

## **LG OLED55C6V (p44)**

How to bring three exciting - and witheringly complicated

- technologies together in one desirable and high-

performance package, by LG. I'm convinced by 4K, HDR and OLED - now I just have to find my way to £3K.



## WHAT HI\*FI?

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## **NEXT MONTH**

Turntables Affordable to aspirational – and how to get the best from them

4K Blu-ray players There's life in the old disc yet - and a price war is coming

Tablets You don't have to pay iPad money to get your mobile jollies

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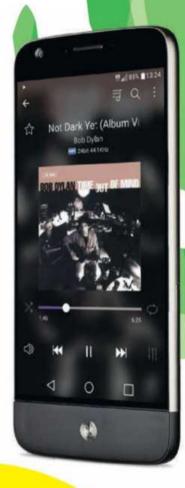






"If there's one thing this test proves, it's that it's already been a great year for Android"

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5540

WHEN YOU SUBSCRIBE
TO WHAT HI-FI? Page 82

THE WORLD'S MOST RESPECTED VERDICTS

One of the best \*\*\*

A serious contender \*\*

Worth a look \*\*

Disappointing \*\*

Awful \*\*

## THE HIGHLIGHTS





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A trio of fab speakers worth salivating over



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You won't regret buying this retro-styled wonder

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## **TURNTABLES**

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## Becky Roberts Staff writer Sony PS-HX500

"Analogue meets digital in this superbsounding deck that can rip your record collection to high-res files"



## **BUYER'S GUIDE**

## FIND THE BEST KIT AROUND, FAST!

Our verdicts on every product worth owning, p85



"The dust is finally settling on this new era of TV"



# A new digital source goes on the record

**FOR** Built-in phono stage; USB output; informative sound

**AGAINST** It doesn't look all that special



No one loves the vinyl revival more than us - well, perhaps other than Sainsbury's, which is probably raking it in after recently becoming the biggest vinyl retailer on the High Street. But the good ol' record wasn't brought back from the dead through discovery of a newfound convenience. An afternoon vinyl session still requires you to get up from your seat more than a 10-year-old who's made the final round of musical chairs. And, of course, you have to be in the same room as your turntable to enjoy it. There's no way round that - or is there? What if vinyl could be pocketable?

### Ripping to hi-res

No, we aren't talking about a portable turntable of sorts - even the physical burden of a personal CD player would be sneered at nowadays - but how about one that can rip your records to digital files so you can carry them around in your pocket? Record-ripping turntables have been around for a while, but the Sony PS-HX500 is the first with the ability to output native

DSD 5.6. Ergo, Sony calls it a 'hi-res turntable', so it's not surprising that one of the first things we notice when lifting the Sony from its box is the hi-res audio logo sitting loud and proud on the plinth's front-facing edge.

## A time-saver, too

While the ripping feature hardly seems necessary to keep the resurgence in full swing, it does mean that those buying their favourite LPs won't also have to head over to a download site to get it in glorious high resolution for their smartphone or portable music player.

So how does it work? Equipped with an internal analogue-to-digital converter and USB type-B output, the PS-HX500 simply hooks up to your laptop or computer's USB input and, via Sony's Mac- and Windowsfriendly High Res Audio Recorder software, records the vinyl either as a WAV (up to 24-bit/192kHz) or DSD (5.6MHz) file. The process is simple enough too: just choose your desired format, hit 'record' when the

vinyl starts playing, 'stop' when it's finished and hey presto! you have a hi-res song. And, of course, you can split recordings into individual tracks too.

Invariably, some will jump at the chance to digitise their collection while others will be less bothered. If you belong to the latter party, you'll be more interested to know that elsewhere the PS-HX500 behaves and looks very much like a typical turntable. And this is the avenue the rest of this review pursues.

On the design front, this turntable hasn't followed in the fashionable footsteps of Sony's colourful Walkmans, instead apeing the minimalist approach of rival decks around this price. The straight-edged, angle-cornered rectangular plinth is an understated, all-black affair that leaves nothing to the designer-in-you's imagination.

## No frills

The plinth is largely unadorned, save for a dial tucked in the bottom left-hand corner where you can switch speed from 331/3rpm

## **KEY FEATURES**





Phono stage



Cartridge included



"Record-ripping turntables have been around for a while, but the Sony PS-HX500 is the first with the ability to output native DSD 5.6"

to 45rpm, and the low-sitting platter adds to that simple aesthetic. While we prefer the more substantial, towering construction of the Audio Technica AT-LP5 (£330), the quality of Sony's slender, vertically challenged build is fine.

It means you have to bend down a little further to put on a record than you do with the Audio Technica, but the four feet, which are fixed to the plinth, can be adjusted to raise the overall height.

## Simple set-up

Assembling a turntable can be a finicky business, but all the Sony asks of you is to plonk (with care) the die-cast aluminium platter and 5mm-thick rubber mat onto the 30mm-thick MDF plinth, hook up the drive belt, and balance the tonearm using the counter- and anti-skating weights.

Sony is shouting about its new tonearm with integrated head shell, claiming that by locating the stylus point in the centre of its axis and limiting rotational movement it can produce a more precise, stable trace.

To save you flicking through the supplied literature, the recommended tracking weight for the Sony's moving-magnet cartridge is 3g, although we recommend that any newcomers to turntables take guidance from the manual which is, thankfully, as intuitive as instructions for the average piece of flat-pack furniture are complex.

Of course, there's little advantage in ripping your vinyl to high-res - or even playing it straight off the deck! - if the PS-HX500's sound quality is poor. But we aren't about to rain on its so-far-promising parade. In fact, we are only full of compliments for the Sony deck.

## **Articulate and coherent**

We settle Dire Straits' *Brothers In Arms* down on the spindle and there's no mistaking the Sony's penchant for detail as the synthesized pan flute and Africaninfluenced drums in *Ride Across The River* come through with clarity and texture. It's articulate with the track's offbeat rhythmic



Parallel lines marked on the top make

cartridge alignment easy

Rather than grab an off-the-shelf design, Sony has opted to make an all-new arm



Electronic speed change makes it easy to swap from playing albums to singles

>



There's more going on the back of this Sony than you'll find on any traditional turntable. First off, there's the small switch that selects either a phono or line-level output. If you pick the phono option you'll need the deck to connect to a separate phono stage or you won't get much of a sound. The line-level alternative can plug straight into an amplifier without issue. Next to the stereo outputs there's a grounding post – needed to prevent hum – followed by a type B USB output to connect to your computer. Simple.

"A best-of-both turntable that caters for record spinning and high-res ripping, and is sure to appeal to anyone torn between their affection for the nostalgia and tangibility of vinyl and the convenience and practicality of digital"

pattern, tying the multiple strands together for a coherent and layered delivery, and has the dynamic dexterity to reveal fairly tenuous discrepancies.

The sprightly Sony is quick off the bench too, springing into action with the upbeat opening of *One World*. It thrusts the drumbeat forward and, with a real sense of gusto and agility, laps up the melodic guitar riffs that cut through the track.

## A light touch

It's with the more sanguine ditties that the PS-HX500's slight tonal inclination to the light side of neutral reveals itself, the presentation favouring a crisp consistency over the full-bodiedness and solidity of some of its rivals. It's not something to penalize the Sony for, but it's noticeable listening to it next to the aforementioned Audio Technica, and something to bear in mind when it comes to system-pairing.

Elsewhere, the Sony's big, open sound lends itself to the lamenting guitar lines and aching organ in the album's eponymous finale too, and there's the space and insight to keep a hand on both as they weave around each other.

There's a delicate naturalness to Knopfler's pensive vocals too, which are confidently presented in the soundstage



and demonstrate the Sony's pleasing midrange insight. Further doing so are the piano notes in Miles Davis's *So What* and the trumpet-playing that wheels over the top, both engaging, informative and staged with convincing stereo imaging.

We feel confident extending praise up to the treble too: the intricate cymbalbrushing that fills the right-hand channel is clear and subtle, the Sony balancing detail with refinement admirably.

## **Take your partners**

As expected, big gains in clarity and detail are made when we switch to our reference Cyrus Phono Signature phono stage (£1200); vocals are fleshed out and instruments are subtler and more sure-footed. Within its own price-bracket, though, the Sony's own is very capable indeed. And, if you plan to use it, would pair well with a quality midrange amp like the Cambridge CXA60 (£500) and a pair of speakers such as the Dynaudio Emit 10s (£500).

## **Broad appeal**

Anything that keeps vinyl fresh and appealing is gold in our eyes, and a good example of that is the PS-HX500: a best-of-both turntable that caters for record spinning and high-res ripping, and is sure to appeal to anyone torn between their affection for the nostalgia and tangibility of vinyl and the convenience and practicality

of digital.

As always, performance is king, though, and in this instance that only furthers the Sony's likeability; while it's not the classiest-looking turntable on the market, it has all the class in the sound suite instead. A very good buy.



An amp and speakers worthy of the Sony



STEREO AMPLIFIER

Cambridge CXA60 ★★★★ £500

An Award-winning midrange amplifier that looks and sounds the part



STEREO SPEAKERS

Dynaudio Emit 10s ★★★★ £500

Subtle, entertaining speakers that mark a confident return to form for Dynaudio

Total build £1450



**VERDICT** An entertaining turntable that's not only unique in its ability to rip vinyl to hi-res files, it also sounds good

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WHAT HI+FI?
Stars of CES|2016★

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## Bang & Olufsen Beoplay A1 | Wireless speaker | £200

## **Upholding B&O's reputation**

**AGAINST** Sound lacks

**FOR** Weighty sound; lovely design; good battery life

If the Band & Olufsen BeoPlay A1 came up in a round of Pictionary, it wouldn't be long before contestants were calling out 'lilo pump' and 'smoke detector'. With its perforated, circular dome-like casing and dangling B&O trademark leather strap, 'crumpet with a jam trail' would also be a reasonable punt.

It has been over a year since B&O entered the portable Bluetooth speaker market with the A4-sized BeoPlay A2, which was something of a surprise considering the brand's reputation for specialist, high-end products, and here we have an even smaller and more affordable speaker.

If you're wondering whether this price point has finally tested B&O's reputation of delivering quality build and design, let's nip that in the bud for you: it hasn't.

## No snags

Unlike most portable speakers (including the BeoPlay A2), the palm-sized A1 available in moss green or silver - is made of aluminium, with just a polymer base. It's not just the weight - at 600g, it's heavier than it looks - that indicates lavishness: it looks and feels lovely. The real leather strap, ideal for carrying the speaker to the park, attaching it to a rucksack or hanging it on a tree branch, only reinforces that.

The design team's brief was to come up with something that couldn't snag a bag or have protruding buttons that could be accidentally pressed. It seems to have worked, for the compact, rounded A1 is smooth all round and largely unspoiled.

Sockets, of which there are just a single 3.5mm input and USB type-C for charging, and embedded buttons for power, Bluetooth and volume spread neatly across the waistband. A circle symbol button, once pressed, will also reconnect it to the last paired device and continue playing where it left off, and B&O's literature says it'll gain extra powers with future updates.

That could be through the BeoPlay app (available on iOS, with an Android version



on the way) which can also be used to pair two Als together, to play in stereo or in unison for a multi-room set-up.

sparkle: not NFC-compatible

There's a built-in microphone for taking calls too, and B&O claims that the rimmed design on the speaker's bottom edge aids vocal dispersion. A 2.5-hour charge offers an above-average 24-hours music playback at reasonable volume levels, so it should certainly outlast your smartphone.

We pair through our LG G5 smartphone via aptX Bluetooth (the A1 doesn't support NFC) and let the 20mm tweeter and 9cm driver go to work as we play Wildbirds & Peacedrums' Peeling Off The Layers.

It's clear B&O has put its heart and soul into producing a sound that's a million miles from your tinny smartphone speakers. The presentation is full-bodied and wide enough so you don't have to turn the volume up to hear across the room.

## A little subdued

There's decent heft behind drum rolls, and the A1 digs down deep enough to communicate the reverb behind some strikes - something the UE Roll, for example, struggles with. The midrange is propped up, the interplaying vocal solid and soulful as it snakes between the cadenced percussion. The treble is crisp yet unshakable - even with The Rapture's Echoes it manages to avoid sounding like a cat scratching at a window - but it's the other end of the frequency range that grabs you.

The walking bass line in Timber Timbre's Magic Arrow has surprising potency for a speaker of this size, and electronics are



\*\*\*\*



aptX Bluetooth



24-hour battery life



properly guttural. If anything, it's a little on the rich side, so playing anything from Jamie xx or Massive Attack at a decent volume makes the A1 (and the table it's sitting on) dance along with you.

Lilo pump or smoke alarm? The Beoplay A1's distinctive looks aren't quite

matched by the

sound, which is a

little on the rich side

It's not quite the whole package, though. Play the former's I Know There's Gonna Be (Good Times) and you wonder where the A1 has left its party hat. Lacking the UE Roll's sit-up-and-listen snappiness and rhythmic handling of the synthesized steel drums, it sounds a little subdued in comparison.

But while needing to better imbue its solid sound with more sparkle and attack, the A1 does stand out amongst the plethora of quality in the portable Bluetooth speaker market with good looks, generous battery life and a clear, full-bodied sound.

The Beoplay A1 may bring B&O's entry-level price down, but it doesn't drag its reputation down with it.





VERDICT It's not the most thrilling sound, but the Play A1 is a solid performer that brings luxury into a lower price bracket





Audioquest DragonFly Black v1.5 | DAC | £90

## Small Fly spreads its wings

**FOR** More dynamic sound; detail; improved compatibility

**AGAINST** 96kHz playback limit; no DSD support



Although caterpillars and butterflies are typically used to illustrate the process of metamorphosis, the evolution of Audioquest's DragonFly is just as impressive a tale of transformation.

Four years ago, the original DragonFly - a DAC and headphone amplifier crammed into the tiny proportions of a USB memory stick - elicited a response of pure delight mixed with 'whatever next?' It was conveniently compact, ingeniously simple to use and an undisputed sonic upgrade for our laptops. For this groundbreaking effort, it was named our Product of the Year in 2012.

Two years later, its successor, the v1.2 (now discontinued), took the gong for its improved sound, and since then portable DACs have sprung up faster than daisies in spring. But Audioquest has figured out how to keep its edge in a cut-throat market, namely by improving compatibility and sound quality, and by dropping the price from £130 to £90.

## Moving with the times

The Audioquest DragonFly Black v1.5 is a more portable version of its predecessors - not in terms of its dimensions, which are exactly the same as its previous version, but in compatibility.

While the older models' power consumption limited their support to laptops and PCs, the adoption of a new Microchip microcontroller - which Audioquest claims draws 77 per cent less current than the Texas Instruments one in the v1.2 - makes it compatible with Apple and Android smartphones and tablets too. If you've been craving better quality music on the go, the v1.5 has you covered.

You'll need to buy a separate adaptor for portable devices, though, which could explain the DragonFly's humbler price. Audioquest makes a DragonTail adaptor for Android devices, although any On-The-Go cable should work. Apple's camera adaptor (£25) should play ball with iPhones.

## Added, and addable, extras

As far as accessories go, Audioquest also sells its own USB extender cable in case the DragonFly physically blocks any neighbouring USB ports on your laptop. There's also an improved 32-bit ESS Sabre DAC chip too, and a desktop application through which the DragonFly can receive future software updates.

The rest of the v1.2's genetic make-up is retained: the headphone amp and analogue volume control, the LEDs that light up in different colours according to file size playback - green for 44.1kHz files, blue for 48kHz, amber for 88.2kHz and magenta for 96kHz. Sadly, that's where it ends, as playback is limited to 96kHz, although it can downsample higher file sizes. DSD support remains another one for the wish list, too.

A plastic cap slots over the key to keep the insides free from the crumbs at the bottom of your bag, and a cute leatherette pouch protects the plastic casing from coins or house-keys.

As we stick both new and old into our MacBook Air, plug in our AKG Y50s (£50) and load up our hi-res music library, it's clear their sonic differences are

DRAGONFLY





playback limit



Smartphone, tablet and laptop compatibility

same cloth - the v1.2's strict balance, rhythmic intelligence and joie de vivre reveals itself in its successor - the v1.5 Black makes ground on the legacy sound with more insight and dynamic impetus.

pronounced. Though clearly cut from the

## Forward presentation

The v1.5 has a clearer, more upfront presentation, making the v1.2's seem a little shy in comparison. Taking flight with R.E.M.'s Pilgrimage, it's authoritative with the thumping drums, yet quick enough on its feet to keep them pacing along with the agility intended.

The DragonFly spreads its wings to deliver the space and openness needed to keep the elbows of the reverberating pianos, tuneful guitar lines and dainty chimes firmly tucked in.

Michael Stipe's longing inflections are bold, solid and nicely layered against the echoic backing vocals too, and there's generally more intensity than with the v1.2.



USE IT WITH ( Apple Macbook Air

A solid laptop choice

for those who prioritise ease of use and build quality

Best of both worlds: the Black

v1.5 retains the orginal's size

but broadens its compatibility

and adds a 32-bit ESS chip

## Happy playing in the stream

We stream Band of Horses' In The Drawer from Spotify and ambient electronics spread evenly about the soundstage which, despite the file's lower resolution, is still ample, Elsewhere, electric guitars twang with texture, the chorus' allied vocal harmonies are distinct, and it keeps a lid on the treble as cymbals take a battering.

The original DragonFly was a groundbreaking product, which rightly won accolades four years ago. The Black v1.5 continues this commitment to better sound quality on a budget, but in an even more impressive packaging. Like the caterpillar transforming into a butterfly, Audioquest's DragonFly line has undergone a similarly remarkable metamorphosis - this is easily the best DragonFly yet.



and Apple iOS compatibility, this is the best DragonFly yet

Elac Debut B5 | Stereo speakers | £250

## Playing safe on a low-key Debut

FOR Eloquent midrange; good | AGAINST Resolutely smalltiming; fine integration

sounding; lack dynamic punch



**There's a time** and a place for innovation in the hi-fi industry, for tearing up the rulebook, for blank-sheet thinking and all the other exciting-sounding initiatives that indicate a break from the norm.

There's a time and a place all right, but the budget end of the loudspeaker market is probably not it. The need to bring a worthwhile speaker to the masses at an affordable price means there's not much point (or profit) in going off-piste. That why Elac's Debut B5 standmounters look the way they do.

To be fair to Elac, the Debut B5s are, in terms of showroom appeal, build quality and finish, entirely competitive. Exposed pins on the front panel for attaching the black, cloth grilles look a little prosaic, but the textured/brushed vinyl wrap (just one finish is available) adds a little more tactility than most rivals can muster.

## Clean pair of heels

They're absolutely par for the course in terms of specification, too. The cabinet dimensions are utterly unremarkable for a product of this type. The deployment of a 25mm cloth dome tweeter (safe behind its fixed metal grille) and 13cm woven fibre mid/bass driver is fairly standard too. A rear-firing bass reflex port and single pair of chunky speaker cable terminals complete a predictable and sensible picture.

So with configuration and build well up to the norm, all the Debut B5s need do is show the competition a clean pair of sonic heels and the job's done. But, of course, the market is at its most competitive here - the likes of Q Acoustics, Monitor Audio and others are all vying to be your first system or micro-system speaker upgrade. And there's also the fact that a sum of around £250 - the price tag of these B5s - buys some startlingly capable efforts. Elac has its work cut out to stand out from the pack.

Positioned reasonably close to a rear wall (where the Debut B5s' swift and textured low end gains welcome body), toed-in just slightly towards the listening position and supported on some appropriately sturdy stands, the Elacs immediately reveal themselves as a well integrated, evenhanded and impressively rapid listen.

Playing some late-period Johnny Cash (his version of U2's One is poignant and authoritative, even if the Elacs do on occasion make his dentures all too



"A sum of around £250 buys some startlingly capable efforts, so Elac has its work cut out to stand out from the pack"

apparent), the sound is sweetly communicative through the midrange and has just enough bite at the top end to prevent it becoming sugary.

Switch to Kendrick Lamar's altogether heftier King Kunta and the B5s' powers of focus and integration come to the fore. This is a wide, busy and relatively dense recording, one that requires real midrange dexterity and detail to properly transmit the malevolence of the vocal.

## Sinking their teeth in

The Elacs are more than up to the task, following the sinuous bassline faithfully and giving Lamar's complaints real expression. The whole thing motors along at a clip, the speakers demonstrating timing the equal of any of their price-point rivals. King Kunta also exposes the B5s' relative lack of scale, and a rather pedestrian lack of drive. For all their sprightliness and ability to differentiate low frequency textures,

**KEY FEATURES** 



85dB/W/m



Rear firing port



Dimensions (hwd): 32 x 20 x 22cm

their teeth into a beat and properly force the issue. Authentically dynamic recordings like Gershwin's Rhapsody in Blue or Underworld's Push Upstairs simply don't have the attack or scale required, leaving the field open for the Elacs' more assertive rivals to make their case.

### **Small-scale sound**

In terms of balance, integration and timing, the Debut B5s are among the best pound-for-pound speakers around. Their shortcomings, though - while hardly numerous - are significant. Ordinarily, speakers that sound as small-scale as this are physically pretty small too - which brings advantages of its own. The Elacs, though, simply sound smaller than they are, which isn't that much help to anyone.



**VERDICT** There is some real expertise on display, but these Elacs don't have the all-round game to worry the class leaders



AWARD Product 2015-2016
USS DAC/HEADTHONE AMPLIFIER OPPO HA-2

6 6 HA-2 is the smart choice for those seeking a polishedsounding and gutsy performer that's keenly priced. AWARDS 2015

DACs

Best CNG under EADO

OPPO HA-2

for £250, you'll struggle to find better detail or dynamics from a headphone amplifier and USB DAC.



A gern of a headphone amp/DAC at a very competitive price. Deserves to win plenty of friends.



66 It's this combination of power and finesse that's so alluring in something so affordably priced.



a crushingly competent piece of equipment for the asking price.



oppodigital.co.uk/where-to-buy



Arcam SR250 | Stereo amplifier | £2500

## "This *could* be all the amp you ever need"

FOR Big, refined presentation; level of detail; video switching

**AGAINST** Lacks a little finesse by premium stereo standards



If you like kit to fit into neat product categories, Arcam's new SR250 is likely to cause upset. It's either a stereo amplifier with video switching capabilities or an AV amp that's running several channels short. It's an interesting enough proposition that it won one of our Stars Of CES awards at this year's Las Vegas extravaganza. And, now that we've got our hands on one for review, we're intrigued to see just where such a product fits in to a busy marketplace.

The SR250 has everything you would expect from an upmarket AV product (without all the power amp channels, of only aims to minimise any room issues but also optimises the phase performance of your speakers. The tonal balance can be tuned to taste, too.

The SR250 comes with a microphone, but you'll still need to use a computer to do the processing. The relevant software (Mac and PC) can be downloaded from Arcam's website. It's not a difficult process, but we recommend getting the dealer to perform the set-up. It might cost you a bit extra but it's worth going to the effort, because the Dirac system is one of the more convincing we've come across.

current integrated multichannel amplifiers. It's well built too, rigid and nicely finished. The front panel is a model of simplicity, and it's easy to operate thanks to the well laid-out buttons and clear display. This is a pricey amplifier - and feels it.

If you don't want to use the standard remote, Arcam also has a dedicated iOS app that covers the full range of the amp's functionality. Once loaded the app is simple and easy to use.

## 'Music or movies? Arcam sees it as a music device first, with surround decoding and video-switching capabilities additional and significant bonuses"

course). There are no fewer than seven HDMI inputs, all capable of handling 4K and HDR signals. These are ably backed up by an array of digital and analogue inputs.

It would be nice to have a Type B USB to make a digital connection to a computer easier but, beyond that, we doubt there's a stereo set-up where this Arcam will be found wanting.

Initial set-up is the same as for any AV amp. Arcam is particularly proud of the Dirac room equalisation system - this not



Comparing the sound of the SR250 with and without Dirac is interesting, and easily done with just a press of a button on the remote. The EQ makes our reference system sound more tonally even and better in terms of precision and focus. Detail levels are improved too, with low level instrumental strands becoming easier to follow.

It's not totally positive news though. Dirac neuters dynamic expression a touch, making the music a little less exciting and less fluid. That said, our test room is a

> relatively balanced proposition, so makes less of the advantages of the EQ system than most other rooms would. If your listening space has some sonic issues, Dirac should help, though we would stop just short of calling it essential.

The SR250 is a hefty unit, weighing in at a chunky 15kg. The casework mirrors that of Arcam's

The circuit layout required for Class G amplification is complex and pricey but delivers superior sound

## Multiple power supplies

Inside, you'll find Arcam's Class G power amplification, a circuit configuration that aims to deliver high-quality sound with low power consumption - pretty much the Holy Grail of amplifier design. The complexity comes from the use of multiple power supplies that are switched into use depending on the demands of the signal and output requirements.

The SR250 delivers a claimed 90W per channel, with just over 20W of that in Class A. By the standards of premium stereo amps, 90W isn't particularly striking - but listen to this amplifier in full flow and there's no denying its muscularity.

It doesn't run particularly hot either. That's not a big surprise considering the use of Class G technology, and the fact that the SR250's casework has so obviously been designed with the cooling requirements of the company's top-end multi-channel amplifiers in mind.

## Music or movies?

At first we aren't sure how to approach this product. Music or movies? Arcam sees it as a music device first and foremost, with the surround-sound decoding and video switching capabilities additional and quite significant bonuses.

We like the SR250 once it's up and running. We start by using the analogue

### **KEY FEATURES**

ARCAM FMJ





**Room equalisation** 



7x HDMI 2.0a with **HDCP 2.2** 



USE IT WITH

**PMC Twenty 23** speakers £2170 They work just as

well in stereo as in a 5.1 package (see p24 of this issue)



outputs from our resident Naim NDS/555PS streamer. The SR250's sound through the line stages is good, nicely detailed with plenty of body and punch. Prince's 1999 comes through with a pleasing amount of insight and plenty of energy.

analogue, and

video-switching

capabilities – all

in stereo only

It's an articulate presentation with a good degree of clarity and precision. We'd like a bit more in the way of rhythmic skill and greater emphasis put on low-level dynamic shifts, such as those that convey emotions in a voice, but still we enjoy what we hear.

There is clear evidence of Arcam's Class G family sound here - the presentation is big, bold and powerful, but mixed with plenty in the way of refinement. You could listen to this amp for hours without issue.

The digital inputs turn out to be similarly capable. The on-board digital-to-analogue circuit is talented, with the SR250 turning

out a stirring rendition of Tchaikovsky's *Marché Slave Op.31*. There's plenty of scale here, and we have no reason to question the Arcam's authority or its ability to deliver wide-ranging dynamic swings. Crescendos hit with venom, yet at any half-reasonable volume the amplifier stays composed. Stereo imaging is crisp, and layered with care - particularly when the Dirac EQ is switched in.

A change to movie soundtracks - old favourites such as *Star Trek* and Michael Jackson's *This Is It* get an outing - shows off the SR250's considerable talent. There's plenty to appeal here, from the amp's punch and authority to its pleasing insight.

Action scenes from *Star Trek* brim with energy while there's enough muscle to satisfy. Similarly, concert scenes from MJ are delivered with plenty of atmosphere and cohesion that few multichannel amplifiers - outside some very high-end processor/power amp combinations, that is - can match.

The SR250 even has subwoofer outputs if you want to add extra low-end heft to the sound of your stereo speakers. Just to be clear, there are no surround channels and no preamplifier outputs that allow the connection of a separate power amplifier to allow them to be separated. This is very much a stereo-only unit, despite the home cinema processing at its disposal.

This, then, is a hard product to sum up. The SR250 *could* be all the amplifier you ever need. If you've got a stereo set-up for your TV then it's a neat way to get the features you need in one convenient box. By stereo standards it's a good-sounding product rather than a great one, but if you need video switching then there's little out there that will do the job better.



**VERDICT** The SR250 is certainly a bit of an oddball but, for some people, its interesting feature set could be compelling



## "As budget as they get"

**FOR** Nice colour palette; bright picture; compact design

Gone are the days when you need to think about emptying your bank account and a chunk of your living room furniture to add a projector to your home cinema set-up - Epson's EH-TW5300 not only comes in at under the £500 mark, but it's also compact enough to squeeze its way into most racks, cupboards or even on to a coffee table.

It's pretty inoffensive in its looks too - a glossy white plastic outer shell, with enough curves to keep it easy on the eye. There's a small opening in the top where you'll find the 1.2x zoom and manual focus controls, plus a slider for controlling lens shift (which you'll need if you have the projector at an angle).

## **Reassuring longevity**

Connectivity is pretty good for a budget projector, and includes two HDMI ins (one with MHL support for smartphones), as well as an input each for VGA, composite video and USB. There's also a single audio out for shifting sound away from the rather weedy built-in 5W mono speaker.

It also packs some rather impressive specs, namely a claimed 2200-lumen brightness, 35,000:1 dynamic contrast ratio and a lamp life of up to 7000 hours. With the longevity of LCD projectors being one of the downsides compared to their DLP counterparts, this sort of figure is very reassuring indeed.

Set-up is about as plug and play as it gets. There's no test pattern, so we choose a bright picture on a Blu-ray and use that to fit it to our 96in screen. It's a relatively short-throw projector, offering a large picture (up to 300in), so we set it on a table in front of our sofa and use the pop-out leg and screw-feet to adjust the picture into position. The keystone adjustment does a great job in aligning the picture, but there are manual controls for further tweaks.

With the picture in position, we choose the 'cinema' picture mode for the best colour balance, then calibrate the picture more accurately using our trusty THX Optimizer disc. While we'd usually suggest you turn off all picture processing, we do opt to switch on Epson Super White, which delivers a little more nuance. Even with it on, whites still look a little on the unsubtle side, but it does help to add a bit more depth to the likes of clouds and waves.

**AGAINST** Blacks lack depth; noticeable picture noise



\*\*\*\*

There's not much to help adjust the blacks though, which suffer from a similar issue of being somewhat indiscriminate in their detail. You'll need to push brightness up higher than you'd want to get any real distinction in the shadows, which in turn affects overall black level.

Putting the projector in 'eco' mode gives blacks more depth, but it still isn't capable of getting as dark as we'd like, meaning low-light scenes look a little washed out. This is an issue with budget projectors in general though, and for better performance you're simply going to have to spend more.

The same goes for detail levels. There's enough here for the price, but it's not a hugely insightful picture. Skin-tones look a little smoothed and textures softer than you'll see on something more capable.

## Well-judged colour

Colours are well judged though, with the EH-TW5300 showing a real adeptness at balancing subtle shades with a richer, punchier colour palette. Colours look a touch on the muted side in darker scenes, but it's nothing to grumble about.

The connections include 2x HDMI, VGA and audio out – pretty good for a budget projector

KEY FEATURES

2x HDMI

1080p

**High definition** 

LCD display

We don't notice any real issues with motion, so steer well clear of the motion processing options, but there is some picture noise in play here. There's a noise-reduction option in the menu, but we find this affects the overall detail too much – a trade-off we're not willing to make.

Other niggles come by way of a remote control that isn't backlit, making it tricky to use in the dark, and the projector running rather noisily in 'normal' lamp mode. If your room is dark enough, you'll want to keep it in 'eco' for the quietest performance.

Once again though, these are things you have to accept with this price tag - this is about as budget as proper entry-level projectors get, and despite our complaints its picture is really quite watchable.

We still want more from the black level and greater detail throughout for it to score the full five stars, but if you're keen to get the big screen experience for under £500, you could just find the Epson EH-TW5300 scratches that itch.



Sennheiser Momentum 2.0 | On-ear headphones | £170

## **Keeping up the Momentum**

FOR Good amount of low end; solid sound; neat design

**AGAINST** Could be more dynamic; slightly bass-heavy



The 2.0s have an an interchangeable 1.4m cable with mic and remote

Kaspar van Beethoven, Theo van Gogh, Augustus Dickens: proof that not all sibling rivalries end in a draw. Even trickier for these Sennheiser on-ears - the middle child of the Momentum 2.0 family - is that they are related to two Award-winners.

But the original Momentum on-ears didn't fare too badly at all when we tested them a few years ago, only a little midrange clarity coming between them and five stars. Though they have their work cut out living up to their esteemed siblings, we don't expect these second-generation headphones to be far off the pace.

## So often the little things

At a glance, there's little to suggest a difference between these Momentums and their predecessors - the pair we're reviewing has the same cream ear cups with brown Alcantara-covered foam padding and headband (Alcantara being a polyester and polyurethane composite that to the touch is similar to suede) as we saw a few years ago. Evidently, looks like these don't fade.

Cannily, though, Sennheiser has added a couple of ball-joints to the headband,

meaning you can fold them away tidily to fit inside the provided carry case. So often the little things, eh? And speaking of those, you're still equipped with a three-way inline mic and remote, though the Momentums' 1.4m cable is interchangeable if it's not entirely to your liking.

Our first thought, upon playing Kiasmos' self-titled album, is that not only do these second-generation Momentums look a lot like their predecessor, but sonically they share many of the same traits as well. To us, that is a sign a company is sure of what it's trying to achieve.

In this case, it means a lot of body and warmth, such as with the padded chords and reverse-delayed synthesizer notes that open this album with a blanket of sound. There's plenty of detail and texture here as well, but there's tenderness too, rather than over-analysis. It makes for an effortless and enjoyable listen throughout the album.

You get more of a feel for solidity and, in particular, bass weight as we get to those processed kick-drum beats that drive the album, albeit often in the left-hand lane of a **KEY FEATURES** 



Inline Mic



Detachable cable



Collapsible design



Tidal £10pm

Superb streaming service where great sound quality is matched by an extensive catalogue

dark and empty motorway. Of course, the amount of low end to be heard in a mix is somewhat a matter of taste. Though we'd prefer an even balance to scraping the depths of low frequencies, the amount of bass here does aid that sturdiness of the sound and steers just the right side of becoming invasive.

## Solid but forgiving

When we play Welcome To My World: The Music Of Daniel Johnston, we also learn how forgiving these Momentums are. Most of these songs were recorded on a tape recorder in Johnston's room but, although there's enough transparency so as not to be deceiving, it isn't ever coarse or lo-fi to the point it becomes overly difficult to listen to. That (especially for a pair of headphones at this price, which will be used to listen to recordings and file types of all levels of quality) has to be to Sennheiser's credit.

In summation, it's a full and pleasant sound of which we don't get bored. But comparison with Philips's Award-winning Fidelio M1MKIIs also highlights a few of the Momentums' flaws. Though these are certainly more solid and carry more low end, the Philips' offer a clearer and more evenly balanced sound. That, in turn, digs out more detail, produces better timing and expresses itself more in terms of dynamic reach for what, we believe, is overall a more musical performance. In effect, the Philips' are more of an all-rounder.

But that doesn't necessarily make the Momentums a bad choice. If, as ever, you accept there will be compromises to be made at this (and in real terms, any) price point, it is then a case of which compromise you are more willing to make.

If a solid, detailed, but forgiving sound is what you're after, you won't tire of listening to these talented on-ears.



Headband aside, these Momentums look much like their predecessors



2.0 on-ears are a reminder of why they were so popular first time round

## "The boldest member of the family"

**FOR** Bold character; good connectivity; hi-res support

When Bluesound refreshed its multiroom line-up last year, its biggest wireless speaker, the Pulse, was the only one not to get a makeover. That has changed with the arrival of the Pulse 2, the new head of the Bluesound family which features all the internal changes introduced elsewhere in the range.

This means the addition of optical and analogue inputs for playing digital and legacy sources throughout the house, a dedicated headphone output, a higher-power USB input for powering any hard-drive and a new wi-fi chipset to ensure a faster, more stable wireless connection.

## Step in the right direction

There's also aptX Bluetooth on board (previously you had to use a dongle), plus a more powerful ARM 9 processor that means library indexing and playback should be up to 20 per cent faster. It's helped to halve the Pulse's power consumption too.

Finally there's an IR sensor built into the front panel for controlling playback from an external source using the device's remote - handy for using the Pulse 2 to give your TV sound a boost, for example.

A whole bunch of functionality and usability upgrades then, but elsewhere it's business as usual. The Pulse 2 is the same size as its predecessor, which means it requires a little space to breathe.

It ditches the fingerprint-harbouring glossy finish for matte, but packs the same touch-control panel and speaker arrangement as before, with two 7cm drivers and a 13cm woofer all individually amplified for up to 80W of power.

A big upgrade to the Bluesound experience is the updated app, with some much-needed improvements to design and usability. This includes a sleeker interface, improved menus and navigation, more intuitive speaker grouping and easy-to-follow set-up guides. It still can't quite match Sonos for functionality and ease of use, but it's a big step in the right direction.

As for performance, the Pulse 2 takes its character from its powerful predecessor. We don't need to lift the volume much past halfway for it to fill our testing room with its rich, full-bodied sound. The deep bass response that was so prominent is back too, though much better controlled. It'll still be too much for neutral tastes, but it manages to be more articulate this time round.

"The Pulse 2 is an engaging performer, with a sound that fills a room much bigger than most will ever need"

KEY FEATURES

It's the same size as its predecessor, and the Pulse 2 also needs a little space to breathe

At very high levels, the upper-mids and

It does go impressively deep - giving it real solidity and authority. There's decent precision here too, meaning the Pulse 2 times much better than you might expect from something with so much bass.

Play *Cornfield Chase* from *Interstellar* by Hans Zimmer and it shows just how rhythmic it is, demonstrating a lightfootedness that keeps a tight grip on the fast-paced organ pattern.

## The smarter choice

Dynamically it's talented too. Play *Ultralight Beam* by Kanye West and the bass lines kick with real force and impact. When the choir joins Kanye's vocal, there's an almost tangible uplift in excitement, and the differences between loud, soft and every level in between are articulated with expression and finesse.



Multi-room

Support capabilities



At very high levels, the upper-mids and lower treble can take on a touch of coarseness, but it's not really an issue at normal volume levels. In fact, most of the Pulse 2's rivals would struggle to go quite as loud in the first place.

The bass emphasis does also tend to make the midrange sound a little recessed, but again this isn't a problem unless the vocals are buried deep in a particularly dense bass-heavy recording.

But these niggles don't affect what is an altogether engaging and entertaining performance, with a sound that could fill a room much bigger than most will ever need. It's solidly featured for its price too, and the new app only helps to make the user experience more enjoyable.

The Pulse Mini may still be the smarter choice for a lot of rooms, but if you want the biggest, boldest member of the Bluesound family, the Pulse 2 should be a keen contender for your audition list.





B&O's unusual approach to technology now extends to the soundbar market with the high-end BeoSound 35



Bang & Olufsen BeoSound 35 | Soundbar | £1745

## "A fancy all-in-one wireless sound system"

**FOR** Insightful performance; great dispersion; goes loud

**AGAINST** Could do with tighter timing; software glitch



Over the years, Bang & Olufsen has carved itself a reputation for bold design. From TVs with motorised stands to speakers that look like Daleks, the Danish company has an unusual approach to technology. Now it has tackled one of the most popular categories on the AV market: the soundbar.

Or rather, what looks like a soundbar. The label seems inappropriate in the face of the Bang & Olufsen BeoSound 35, whose appearance and price tag are more ambitious than any soundbar we've seen. This is not a soundbar - it's a fancy all-in-one wireless sound system in the vein of Bowers & Wilkins' Zeppelin Wireless or Naim's Muso, but aimed at the high end.

## Well connected

It begins with extensive connectivity options, which include Apple AirPlay, Bluetooth 4.0 and DLNA for streaming music from a networked device. Compatible formats include MP3, WMA, AAC, ALAC, FLAC, WAV and AIFF, up to 24-bit/192kHz.

IN DETAIL...



There are physical sockets for optical, as well as an RCA input. You can connect the 35 to your TV and use it as a soundbar

It is integrated with web-based services too: Spotify Connect, Deezer, TuneIn (for radio) and Q Music (for the Chinese market). Web connectivity is handled by dual-band wi-fi, plus an ethernet socket for good measure. There are also physical sockets for optical, as well as an RCA input - so you can connect it to your TV and use the 35 as a soundbar if you want to.

There's also the option of multi-room streaming - the BeoMusic app integrates with the BeoLink multi-room system so you can stream music to several networked B&O products across your home.

## Metal gear solid

Sculpting aluminium has long been one of B&O's strengths, and the BeoSound 35 is made almost exclusively from it. B&O says it is ideal for acoustic stability and heat dissipation. It's a striking look and a guaranteed conversation piece.

The pentagonal cross-section is supposed to keep the device sounding sweet regardless of positioning - the design works with an adjustable wall mount, although our review sample came with a table stand.

Not covered in aluminium are the OLED display and the removable cloth speaker grille. Four drivers lie beneath: two 10cm



Spotify £10pm If you don't want to pay out for lossless, this is the most

complete streaming

service around

The BeoSound 35 aluminium, which



## **KEY FEATURES**



**Apple AirPlay** 



Bluetootl



DLNA

woofers near the centre and two 19mm tweeters near the ends, angled outwards at 30 degrees to eliminate sweet spots. B&O promises 180-degree sound dispersion.

Under the display is a touch-sensitive panel, used for controlling playback, volume and inputs. You can also use B&O's own BeoRemote One, but it is not included.

## **Navigating hurdles**

Getting started is easy enough. All you need is the BeoSetup app. The BeoSound 35 generates its own wi-fi network - connect to this and the BeoSound 35 will show up on the app. From here, you can enter your home router's login details and adjust the BeoSound 35's settings.

You can play with default volumes and line-in sensitivity, but the most important option is to do with placement. The BeoSound 35 can be positioned freestanding, on walls or in corners - and the app has options to adjust the sound accordingly. We reckon the best sound is with the device away from walls (B&O recommends a clearance of at least 15cm) and set to free-standing mode.

Time to play, and here we run into our first hurdle. The touch-sensitive panel on the device is not particularly intuitive. The volume slider works as you'd expect, but navigating the menu using just the left, right and 'Go' keys is a bit of a chore. If you're deep in the list of inputs, you can't just go back one step and check out the settings – you need to scroll to the 'back' option in order to retreat.

Then there's the BeoMusic app, which B&O recommends. It was unable to identify our BeoSound 35, even though they were on the same network. Hopefully a software update will fix this, but at the time of writing there is no solution.

Without a control app or remote, we turn to other options. AirPlay works flawlessly, and Bluetooth has no problem pairing. Streaming CD-quality WAV files from a smartphone with DLNA works too. There are ways to get around software glitches, but at this price we really shouldn't have to.

## Weighty, but not tubby

Time to play, for real. The first thing we notice is the scale. It sounds much bigger than its size might suggest. The sound is evenly dispersed too, ensuring you are not nailed to one spot on the sofa.

It also gets loud. We've been known to make a lot of noise in our test rooms, but we never feel the need to crank the volume to 100 per cent. We reckon 75 per cent is sufficient for most living rooms - any higher than that and you begin to lose out on subtlety.

That would be a shame, because subtlety is one of the BeoSound 35's strengths. The sound is clear and detailed, providing all the fine texture and performance nuances you need for an insightful listen. Tonally it's a rich sound. The balance leans towards the low end, which is articulate enough to ensure the delivery never feels tubby. If you're after a weighty, powerful performance, you're in for a treat

Where the BeoSound 35 falters is in its rhythm. We play Nick Cave's *We No Who U R* and the drumming doesn't give the piece the momentum it needs. Organisation also needs a little work, as instruments struggle to give off a sense of cohesion. We'd also like greater dynamics. There's plenty of power under the hood, but play The xx's *Heart Skipped a Beat* and it doesn't convey the attack of the intro, which switches from bass kicks to hand claps.

The Bang & Olufsen BeoSound 35 is a mixed bag. We like the design, but, though hugely impressed by the sound's scale and insight, we wish the performance were more engaging. Most disappointing of all are the software issues, which often make or break any app-controlled device.

We are accustomed to Bang & Olufsen's high price tags, which are usually justified by impressive innovations, a lush user experience or simply an impressive performance. Sadly, the BeoSound 35 offers none of these - at least not enough to distance itself from more affordable rivals.



system, but sadly just falls short

PMC Twenty 23 5.1 | Surround sound package | £8240

# "Like an immersive 5.1 sound bubble"

**FOR** Precise sound; compact design; elegant finish

**AGAINST** Bigger rivals offer greater scale and deeper bass



You know a piece of hi-fi or AV kit is special when it unearths detail in favourite films or songs that you'd never heard before. The PMC Twenty 23 5.1 speaker package does just that: it digs up every ounce of detail from a film's soundtrack, making it sound fresh and exciting, even if you've seen the film a thousand times.

We've long been fans of the excellent PMC Twenty 23 floorstanders. A glowing five-star first test review lead to a 2013 Award for Best Floorstander over £1500, and our fondness for these balanced and insightful speakers hasn't diminished over the years.

## Warp speed effect

What we've never done is build a 5.1 surround speaker package around the Twenty 23s. So we did. And we liked it so much we're going to keep it.

The PMC Twenty 23 5.1 speaker package that now has a home in the testing rooms at *What Hi-Fi?* headquarters consists of two pairs of floorstanders (at £2170 per pair), a centre speaker (£1250) and a subwoofer (£2650) - making it a grand total of £8240.

It's not a cheap package by any means, but the price tag is fully justified once you hear just how talented this speaker package is.

You'd think we'd know every second of a favourite test disc, *Star Trek*, by heart, but we hear so many tiny details and experience the sound effects in a way that we never noticed before. From the hubbub of dozens of Starfleet personnel and the bleeps and pulses of electronic equipment, to the solid thunk of metal levers being pulled - each sound is delivered with a remarkable degree of clarity and refinement through the PMC package.

Spaceships move between the speakers with a weighty presence. The dialogue is full of personality and humour. That warpspeed sound effect is glorious: taut and punchy with layers of textures in between.

We don't expect this compact speaker package to deliver the kind of power, grand scale and muscular performance that its bigger rivals do. It's not suited to very large rooms, either. But the PMC package has other, more captivating talents.

Voices in particular sound fantastic. Every emotion and vocal nuance is laid bare thanks to a clear and expressive

midrange. We can't help but hang on every word.

The other defining characteristic of the PMC speaker package is its seamless integration. The cohesion across the speakers is unparalleled at this price, especially for speakers of such compact dimensions. Key to this is the fact that the floorstanders and the centre speaker all use the same 14cm mid/bass driver and 27mm softdome tweeter. As a result, it's like being in the middle of an utterly immersive surround sound bubble.

Their sound dispersion is impressively wide and even. Even where the surround speakers are furthest apart, you'll hear a palpable wall of sound. You can hear the general hum of activity happening around characters in a film - just like you do in real life - while the main

**KEY FEATURES** 





Two-way speaker



Subwoofer power: 400W

action unfolds on screen. It's a delicate balancing act by the PMC package, and one at which it excels.

## An unsung hero

Tonally, they all match, too. There are no flabby or sharp bits: shattered glass and gunshots have bite and excitement in *Captain America: The Winter Soldier*, while punches pack a wallop that makes you wince - but not uncomfortably so.

When you first start listening, you might question the amount of bass and scale of sound the PMC package is capable of producing. We initally feel that a big, brawny amplifier from the likes of Onkyo or Yamaha is needed to coax the PMCs into delivering greater scale and solidity.

But actually, all we need to do is let it run in for longer. Within a week, the PMC package (combined with our Awardwinning Pioneer SC-LX59 receiver) sounds solid, reaching into its reserves to deliver meatier basslines and a bigger, even more cohesive sound.



4K HDR PROJECTOR

Sony VPL-VW520ES ★★★★★ £8800

This future-proofed projector pulls out all the stops





We liked the
Twenty 23s' 5.1
surround speaker
package so much
we decided to
keep it at
What Hi-Fi? HQ

We must mention the unsung hero of the PMC Twenty 23s: the Advanced Transmission Line. PMC has spent years developing this technology, aiming to improve the bass performance of its speakers, by using a transmission line design instead of the more common reflex port.

The transmission line is a damped pathway within the cabinet through which the rear output of the mid/bass driver travels. As the sound is forced through the path, all high frequencies are absorbed, leaving the lowest notes to exit the speaker through the front panel. This reinforces the forward output of the driver, resulting in a bigger, more powerful bass from relatively dainty speakers like these.

We've always been fond of the Twenty series' slim, slanted design. It not only looks smart, but that size also makes it easy to slot the speaker package into a living room. Build quality is excellent, with corners that are pointy yet smooth, and they are sturdy yet light enough to manoeuvre - important

if you need to be more flexible with your system's placement. There is a choice of four finishes: walnut, amarone or oak veneers and a high-gloss black, and there is scope for bi-wiring and bi-amping too.

## **Utterly enchanting**

The subwoofer is just as slender as the floorstanders, so you'll have no problem keeping it snug and out of the way in your living room. It has two 18cm woofers, 400W of class D amplification, equalisers and a volume control that are easy to adjust, and balanced analogue and digital connections at the back.

Again, if you want to use this package in a large space, you might want to consider a second subwoofer to add more muscle to the low end. For most living rooms, though, we think you'll be pretty satisfied with the amount of bass it rumbles out. After a few days of running in, you'll hear it gaining strength and becoming even more robust and insightful.

Even after we've had the PMC playing for a month as our reference speaker package, it is still improving. So if you feel you're missing some weight and muscle at first, stick with it - you'll be rewarded with an incredible surround-sound experience.

We can't sing the PMC's praises enough. This elegant and talented 5.1 speaker package is utterly enchanting, and we urge you to give it an audition. We think you'll love it as much as we do.



**VERDICT** This speaker package delivers such a captivating performance we decided to keep it as our reference system

Apple iPad Pro 9.7 | Tablet | £740 (256GB)

## "An appealing portable tablet for the masses"

**FOR** Impressive sound; detailed picture; beautiful design

**AGAINST** Sound through the headphone jack lacks sparkle



**The iPad Pro** released last autumn was a powerful, impressive machine that did a number of things no Apple tablet previously had done.

But for all the power, its large 12.9in screen was never going to be everyone's cup of tea. It was only a matter of time until Apple launched a smaller, more portable and more appealing version for the masses.

And here it is, the iPad Pro 9.7. To some it will simply be a more powerful and more expensive iPad Air 2, but look beneath that gorgeous retina display and you'll find there's a lot more going on here than you initially might think.

### Identical siblings

26 www.whathifi.com

Once removed from Apple's exquisite packaging (unboxing any Apple product is an event in itself), first impressions are that it does indeed look and feel pretty much identical to its sibling, the iPad Air 2.

Reach for the tape measure and you'll see their dimensions are identical, drop them on the scales and their weights match up too. But a more detailed look around the exterior of the tablet uncovers a few key differences.

First, there's a slight bulge where the 12MP iSight camera sits - it's the same camera as found on the iPhone 6S, complete with True Tone Flash and 4K recording. You'll also see two lines of perforations along the top edge which indicate the presence of the four-speaker system introduced on the 12.9in Pro.

Although it uses the standard Lightning connector for charging, you'll also notice a trio of small rings on the left edge, which is Apple's Smart Connector. Again first introduced on the 12.9 model, this allows you to hook up Apple's Smart Keyboard, a protective case that doubles as a stand with built-in super-slim foldable keyboard.

Also optional is the £79 Apple Pencil, which allows creative types to treat the iPad's screen as if it were a sheet of paper.

The iPad Pro 9.7 uses the newer, 64-bit A9x chip and M9 co-processor found in the 12.9in tablet. Apple claims it's 1.7x faster than the A8x chip in the Air 2 and also boasts 1.7x the graphics performance too.

In conjunction with Apple's slick and intuitive iOS 9 operating system, the Pro is a joy to use - and any navigating or multitasking is handled with fluidity and ease.

**KEY FEATURES** 



2048 x 1536 pixels



9.7in screen



JRES Prices start at £499 for a 32GB wi-fi only model. There's also a 128GB storage option and, for the first time on an iPad, a 256GB

version. As always, all variants are available as wi-fi only models or wi-fi and cellular. The usual Apple colours are available -

silver, space grey and gold - but there's also a rose gold version just for the Pro 9.7, to match the finishes available for the iPhone SE, 6S and 6S Plus.

## Screen is superb

The screen is one area where the new iPad Pro 9.7 really excels. The resolution (2048 x 1536 pixels) matches that of the Pro 12.9 and Air 2 - but Apple claims it also offers 25 per cent greater colour saturation, 25 per cent more brightness and a whopping 40 per cent less reflectivity than the latter.

The Pro 9.7 also uses the same P3 wide colour gamut found on Apple's own 27in iMac with Retina 5K display. Even the Pro 12.9's screen doesn't boast these levels of performance.

The Pro 9.7 is also the first Apple tablet to feature a True Tone display. Four ambient light sensors on the front of the tablet alter colours and the picture intensity depending on the levels of ambient light present.

Picture quality has always been one of the iPad's strengths, and the 9.7in Pro carries on the tradition. We watch *Inside Out* and the colours appear beautifully judged - the greens, reds and blues of the colourful characters show fantastic depth and richness, without appearing sickly or oversaturated.

Edges are sharp and motion doesn't prove much of an issue either. We switch to *Spectre* and there's good contrast and definition to every one of Bond's sharply pressed suits.

The action in the snow-white Austrian mountains contrasts well with the nighttime car chase through the streets of Rome. The screen manages to stay composed and there's loads of detail on display as the Jaguar and Aston Martin engage in a thrilling game of cat and mouse.

"Picture quality has always been one of the iPad's strengths, and the 9.7in Pro is no exception.

Edges are sharp and motion isn't an issue either"







The extra speakers add width, detail and a great deal more composure compared to the Air 2, which sounds coarse and messy in comparison. We don't automatically find ourselves reaching for a pair of headphones, and could quite easily use the built-in speakers to watch an episode or two of Game of Thrones or even a feature-length Hollywood blockbuster. After all, this how the majority of people who use the iPad Pro will probably listen to it.

With Spectre, the iPad handles dialogue, explosions and the movie's score with a great deal of skill. The speakers manage to sound natural and capture the gruff tone of Bond's voice remarkably well.

Switch to using a pair of headphones, such as the Sennheiser Monentum M2 in-ears, and you're greeted with a balanced and measured sound. But we play alt-J's Breezeblocks and although there's enough detail here, we find the Air 2 sounds livelier and more expressive. The Pro can't follow

The iPad's camera performance may not sway your buying decision as much as it would on an iPhone, but you'll be pleased to know the Pro 9.7in can take decent snaps and the ability to film (and edit) 4K video is a welcome bonus.

This is all made possible by the inclusion of that 12MP iSight camera, complete with True Tone flash. We already know the same camera takes great point and shoot pictures on the iPhone 6S and the results here are just as satisfying.

You're actually getting a better-specified camera here with the 9.7in version than on the larger Pro, which has to make do with a relatively miserly 8MP flashless camera that's capable of recording only in 1080p.

It's a similar case with the front-facing camera, where you have access to a 5MP camera with Retina Flash, compared the 1.2MP flashless version on its sibling.

Apple's thrown everything, including the kitchen sink, at the iPad Pro 9.7. Not only has it succeeded but, in some ways, it has even managed to outshine its big brother.

The smaller screen is a seriously tempting proposition, and even though the sound quality through the headphone jack has taken a slight hit compared with prior generations of iPad, the Pro makes up for it with the fine sound from its four-speaker system, brilliant picture quality, speedy processor and excellent ease of use.

it's not included



**VERDICT** Apple owns the premium tablet market and the Pro 9.7 cements its position with a great all-round performance

Humax HDR-2000T | Freeview HD recorder | £150/500GB storage

## "Does everything it says on the box"

**FOR** Loads of features; easy to use; great picture and sound

**AGAINST** Nothing we can think of





You need hardly be in British Mensa to recognise the pattern here: Humax releases a home recording device, it gets five stars. It's as straightforward as that. Like the underappreciated factory worker who punches the holes in Polo mints, Humax knows its role and gets on with it.

You'll have noticed, then, the five stars at the top of this review suggesting, or rather denoting, that the rousingly named HDR-2000T is no exception. Whether this talented set top box is worth the £150 you'll have to spend will depend upon your specific needs, but not on the quality of the work it does.

## No missed penalties

This is a Freeview HD+ digital TV recorder, which essentially means you have subscription-free access to the live broadcasts of all Freeview channels, including 10 in high definition. You can also access its radio stations, and record up to 300 hours of standard definition or around 125 hours in HD.

As ever, though, Humax enables this in the most intuitive way it can. An eight-day television guide allows you to plan well ahead, with a series-record function eradicating the need to do so manually for the same show each week, and twin digital tuners allow you to record two programmes simultaneously or record one and watch another.

Remember when you were too young to stay up and watch the football, so you'd tape it on VHS, only for extra time and penalties to be chopped off the end? Well Humax's accurate and intelligent recording system won't let that happen, nor will it record extra time and penalties if you're

after the following programme. You can begin watching your programme even if it's halfway through recording, and you have the power to pause and rewind live TV.

Sounds simple, doesn't it? But this is precisely what we mean by Humax knowing its part and playing it: we'd soon notice if any of these were missing. But this is, of course, more than just a television recorder. Like the rest of Humax's range, it has a well-stocked suite of smart features, including catch-up channels and access to YouTube and internet radio, as well as the ability to play videos and MP3, and share photos via its USB ports.

## **Lofty expectations**

Our expectations of Humax products are reasonably lofty, and as such it's only really disappointment that could surprise us. So perhaps that's why we're less enthused than we could be when we lift the HDR-200OT's stylish chassis from its box.

The remote control isn't the most substantial we've ever grasped, but it's comfortable and no trouble to use. Set-up is as simple as plugging in power, TV aerial, ethernet cable (a dongle is available separately for wireless connection) and HDMI into our TV, which in this case is the Samsung UE65JU7000.

Switching the box on, we breeze through the opening setup menus, update to the newest software, and that's it. There's nothing more to it - within five minutes we're ready to flick through the Humax's multitude of functions. Whereas the home screens on these boxes have in the past been quite colourful affairs, the HDR-2000T has opted for a more reserved, cleaner set-up.

### **KEY FEATURES**



300 hours standard def recording; 125 hours HD



USB for photo, video and MP3



Pause and rewind live TV



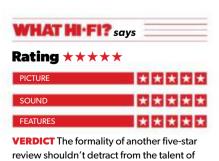
We stick on *Flog It* on BBC1 and are prompted immediately to press 'OK' for the HD service, a shortcut available wherever there is an HD alternative. However, we pause a little first to admire the picture in standard definition.

Flicking between the two broadcasts, it's clear that the Humax box isn't giving us as good quality as the direct feed from our TV, but the difference is relatively small. We also press pause and play a few times - a fun game in itself - and are pleased with the sensitivity of this live TV control.

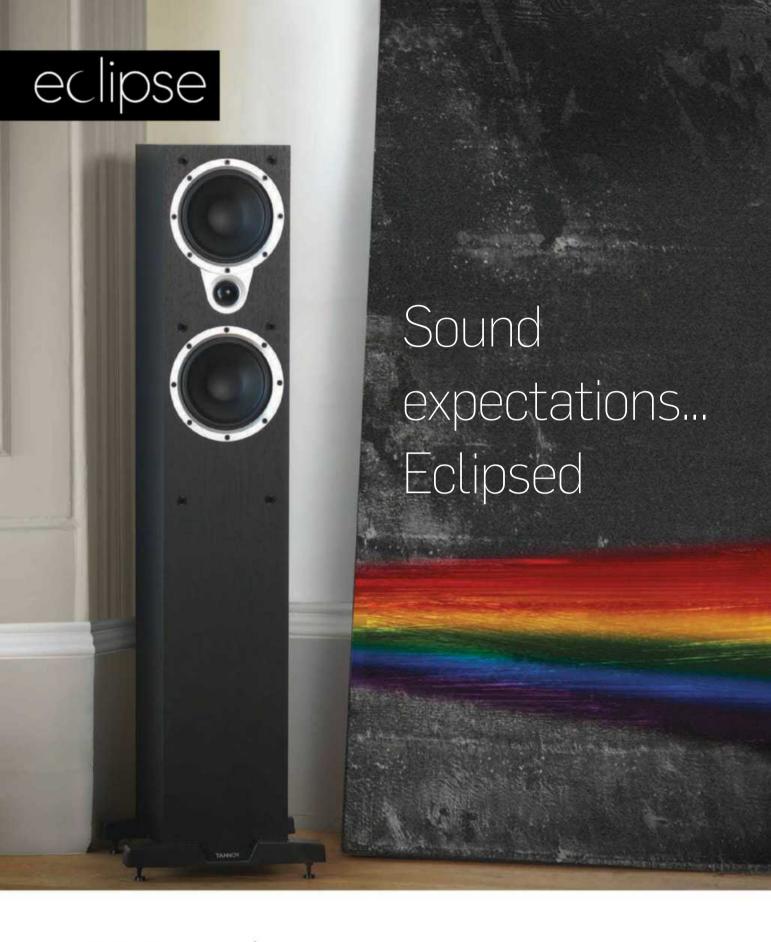
## Same old, same old

Sound quality too, is as we've come to expect from this class-leading TV; switching to YouTube we play the video for Frightened Rabbit's *Get Out* and enjoy as dynamic and expressive a performance as our telly speakers are capable. Essentially, you can be assured the famed idiom about cooks and broth does not apply here.

So, a familiar pattern then? Don't say we didn't warn you. But if it's too repetitive, come back when a Humax box doesn't get a five-star review; that'll be the day it doesn't do everything it says on the box.



its boxes, nor the joy of watching them.



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For more information please visit tannoy.com



Sony UHP-H1 | Blu-ray player | £400

## More fuel to Sony's fire

**FOR** Great picture; superb sound; plenty of features

**AGAINST** Nothing really, for the money



There are certain items that have developed way beyond their original function, to the point that the description of them no longer seems apt. Take the petrol station for example. That tiny oasis of convenience now has a lot more to offer than V-Power and diesel - you can also get doughnuts and Lucozade and sausage rolls.

That's not far off the deal with the Sony UHP-H1. Sony has taken last year's Award-winning BDP-S7200 and cranked it so hard that it no longer fits in the usual BDP range of Blu-ray players. Instead it sits on top, like a resplendent quetzal.

So we'll call it a Blu-ray player, even it that's unfairly reductive. While it can't microwave your sausage roll, it can handle almost anything you can throw at it, within the realm of sound and vision. Which is nice.

## A slice of life

This is a fully certified high-resolution Blu-ray player, with wide format support that includes DSD 5.6, WAV, AIFF, ALAC and AAC. If you prefer to keep things physical, don't worry: it has disc-spinning skills too and they expand beyond regular Blu-ray, DVD, DVD Audio, CD and SACD – it handles 3D as well. Some TV manufacturers may have given up on the format, but for those who invested in 3D Blu-ray, Sony has got you covered.

Connections include the essentials: twin HDMI, plus outputs for digital coaxial,

digital optical and analogue RCA. A USB port hides under a flap at the front and can handle hi-res files.

There's Bluetooth connectivity too, in case you want to spare your neighbours and use headphones. Sony's proprietary LDAC codec promises to transfer three times the data as vanilla Bluetooth.

Online business is handled by ethernet and dual-band 'super' wi-fi, and you get the key music and movie apps: Spotify, Netflix, Amazon Instant Video and BBC iPlayer. DLNA certification means you can stream from networked storage devices, while the SongPal app offers multi-room audio.

What it does is almost as important as how it does it, and Sony says the UHP-H1

## KEY FEATURES

DSD, SACD, 24-bit/192kHz

Hi-Res Music



Bluetooth



## SYSTEM BUILDER



### **PROJECTOR**

## Epson EH-TW7200 ★★★★ £1900

Exciting, immersive and effortless, this Epson is perfect for big-screen entertainment



### **AV RECEIVER**

### Denon AVR-X2200W ★★★★★ £500

An articulate, detailed amp with stacks of functionality and future-proofing too



### **SMARTPHONE**

LG G5 ★★★★★ £500

The LG gives you innovation and performance – just what you need from a smartphone





was designed with an emphasis on performance. To that end, the physical structure has been overhauled.

There is a high-rigidity frame-and-beam chassis, a top panel with a honeycomb structure, and an extra-rigid disc drive - all to minimise unwanted vibration and jitter. It doesn't feel right to slice our review machine open, but it certainly feels more solid than the typical £400 Blu-ray player.

Does it work? It's hard to point out a direct correlation between the physical tweaks and the performance, but we can say the UHP-H1 is one of the best Sony Blu-ray players we've seen - high praise considering the countless Awards we've given Sony for its Blu-ray players in the past.

## Raw energy

We stick on a Blu-ray of TT: Closer to the Edge and are greeted by the sort of energy we've grown to expect from Sony's Blu-ray players. The sound is agile and full of power. As Guy Martin tears down the track, we're treated to strong dynamics and precise effects placement.

The raw energy of his (way too fast) bike is palpable, really conveying the madness of the Isle of Man TT race. Skip to the slower, talking scenes (it's a documentary, after all) and the Sony handles dialogue with finesse. Voices are subtle, full of texture, and conversations sound natural.

So far, so typical of Sony's Blu-ray players, but we note an extra authority to the sound, which we usually associate more with Panasonic's approach. There is more weight to the sound, making for a more rounded performance.

Visually, it's good news too. In the past, Sony has demonstrated a subtle approach to colours, which one could accuse of being a little underdone. With this player, the colours are still neutral and convincing, but they're also rich and attractive. It's a sharp picture too, with the good sense to stop short of looking overly processed. It's a natural performance, easy to watch without distraction.

Sony wants this to be your audio player too, and we're pleased to say the UHP-HI's music-only performance is very good for a Blu-ray player. There is a real sense of space - instruments are given room to breathe on a well-organised soundstage, without being cramped or closed in. It's packed full of energy and agility, which makes for an engaging, entertaining listen.

Dynamically, it handles the challenging shifts that Pharrell Williams and Daft Punk

are so fond of, and there's plenty of fine detail too. At a push, we'd say it doesn't have the level of subtlety demonstrated by a dedicated CD player such as the Marantz CD 6005- but it does better than any Blu-ray player we've heard for the money.

### One convenient box

With the UHP-H1, Sony didn't set out to make just a Blu-ray player. The company wanted to make a one-box offering that can juggle multiple tasks and leave you with one convenient box to contend with. We think that mission has been accomplished with gusto. Indeed, this is one of the most talented multi-media players we've seen for the money.



**VERDICT** The title 'Blu-ray player' doesn't do this Sony justice. It's a great all-in-one disc spinner, and much more besides

## LG OEED TV4K









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OLED's next generation pixel construction allows for unique screen architecture which is so light and thin it can be bonded to a transparent piece of glass. This stunning television produces an incredible picture with infinite contrast that is complimented by an innovative sound bar stand that produces superb audio.

A masterful television from LG's award winning OLED TV range.

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WHAT HI-FI?

## Is this a record?

Record Day 2016 again showed that vinyl remains a popular format, but can it really hope to compete with streaming?





So how is vinyl doing in terms of sales? Well, the graphs to the right show how the format has grown over the two years, with just under four million extra units sold in 2015 than in 2014. The total value was up 32 per cent to \$416 million, the highest since 1988. By comparison, CD sales dropped by roughly 20 million, although total numbers still dwarf those of vinyl. Whether it's for the nostalgia, the way it feels in the hand or the album artwork, consumers are buying more vinyl. Surprisingly, it might not be about the music – an ICM poll from April 2016 found 48 per cent of people who bought records in March 2016 have yet to play them, and 7 per cent of those surveyed said they didn't even own a turntable.

## **Vinyl revolution**

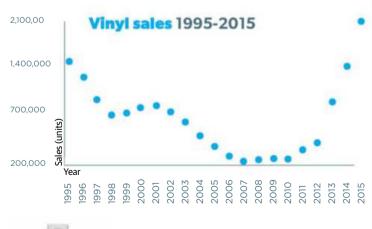
The vinyl revival has caught the eye of many, including supermarket chains Tesco and Sainsbury's, both of which now stock vinyl in a selection of stores around the UK. In fact, Sainsbury's stocks records in 171 of its stores, making it the biggest vinyl retailer on the High Street.

"Let's not forget that although vinyl sales are increasing, they're tiny compared to the revenue generated from streaming services such as Spotify and Apple Music"

Independent record stores have also benefited from the surge in demand, which is best represented on the annual Record Store Day. Every April, hundred of stores around the country get their hands on exclusive pressings from various artists, which have punters queuing up outside for hours on end only to be told that they've sold out of their allocated numbers of David Bowie's *The Man Who Sold The World*.

Record Store Day has been a catalyst for vinyl sales in the UK, from just 75,000 albums sold in 2008 to 2.1 million in 2015. It's claimed that LP sales are already up 64 per cent on last year, which is encouraging. But let's not forget that while vinyl sales are increasing, they're tiny compared to the revenue generated from streaming services such as Spotify and Apple Music. In 2015, streaming was worth well over \$1bn, making up 34.3 per cent of recorded music industry revenues.

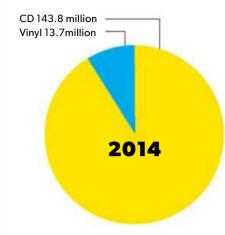
While there is no sign of the vinyl revival slowing down, the question of whether there's enough life in the LP yet to be able to compete with the convenience of streaming in the longer term remains to be seen.

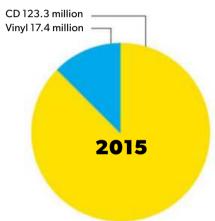


MUNICH SHOW REVIEW: OUR TOP FIVE PRODUCTS



## **CD vs Vinyl** Number of units shipped in 2014 and 2015





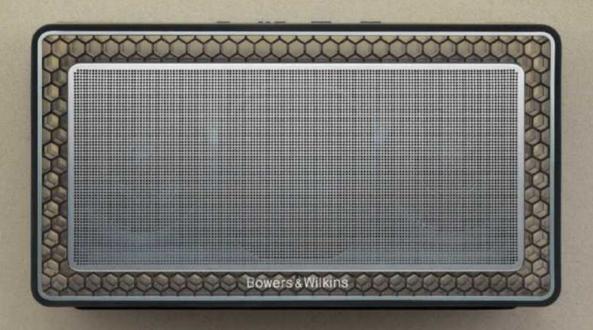
## Top 8 Albums sold on Record Store Day 2016

- **David Bowie**The Man Who Sold The World
- Motörhead
  Bad Magic
- The Jimi Hendrix Experience
  Smash Hits
- Ezra Furman
  Songs By Others
- Fleetwood Mac
  The Alternate Tusk
- The Damned
  35 years of Anarchy, Chaos & Destruction
- Ocean Colour Scene Moseley Shoals
- T.Rex
  Born to Boogie



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Naim have channelled over forty years of British engineering excellence into a compact wireless music system that delivers an uncompromising listening experience. Controlled by a powerful audio brain, Mu-so Qb is alive with custom features that can deliver music seamlessly to every corner of the home in a compact 21cm³ enclosure. Simple to control and easy to connect, Mu-so Qb delivers a staggering 300 watts of power to unmask your music with a sound that defies size.



Spotify Connect®



TIDAL



AirPlay



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Multiroom Streaming

### Be summoned by the sound



Go Deeper





## STATE OF THE TVART

The 4K Ultra HD circle is complete. Here's the how, the why and the which of how to get it into your life





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## HIGH TECH REACHES LOWER DOWN

## Panasonic TX-50DX700 £1000

FOR Intuitive OS; insightful picture: HDR and Ultra HD

**AGAINST** No HDR for Amazon | ★ ★ ★ ☆ yet; lacks a bit of subtle detail



The TV industry has been riding a wave of progression for the last year or so: 4K has begun to dominate TV ranges and shop floors, Ultra HD Premium certification is finally 'a thing' and already HDR (High Dynamic Range) is no longer exclusive to flagship models but is filtering down to humbler screens too.

As an example of that, Panasonic has four new ranges - no fewer than 10 tellies - with 4K and HDR support this year, and this 50in TX-50DX700 belongs to the entry-level, along with 40in and 58in versions.

#### Selected specs

The TX-50DX700 is without the Studio Master HCX processor, enhanced speaker system, or THX and UHD Premium certification that litter the specification sheets of the higher ranges. But for £1000, it doesn't leave you feeling hard done by - unless 3D is a must, as it's a no-show here. Instead, you get a 4K panel that supports HDR, meaning it is Ultra HD Blu-ray-ready, and an all-encompassing Firefox OS smart experience.

Panasonic is also highlighting the range's 'Switch Design': two adjustable feet can be fixed near either end of the screen or, to accommodate narrower stands, more centrally a couple of feet apart. Pointing ever so slightly inwards, they do look a little like they belong to a about practicalities. There's probably more silver in the TX-50DX700 than in Real Madrid's

trophy cabinet right now - the silver feet meet a silver half-finger-width bezel, and even the remote is silver. It's very tasteful, and while it's clear Panasonic hasn't put the TX-50DX700's frame through the toughest weight-loss regime - it's thicker than some of the latest sets we've seen from Sony and LG - it's still a pretty slim, streamlined design.

bashful bird on a rather awkward perch,

but at least the company is thinking

Lifting off a plastic shield on the textured back panel uncovers a plethora of connections, including three HDMI inputs (two are 2.0 spec'd for use with 4K Blu-ray players, one of which is also ARC-compatible); three USB inputs (one meets the 3.0 standard); and an optical output for, say, a soundbar.

#### Catch up and scroll back

You can get online via ethernet cable or, if you don't want wires trailing from your router, wi-fi. That unlocks the Panasonic's royal flush of smarts, namely Freeview Play which, in one neat hub, offers BBC iPlayer, ITV Hub, All 4 and My5 catch-up services as well as seven-day scroll-back TV guide. An app market lets you download apps to your heart's content too.

Panasonic continues its collaboration with Mozilla Firefox OS for another year - while the open platform is no more in smartphones, it lives on in the TV. We're pleased Panasonic has stuck to last year's guns, as it remains one of the more intuitive, foolproof systems we've seen.

Three 'decks' (Live TV, Apps and Devices) make up the home screen, and any app, webpage or piece of content -Netflix, Google's homepage or BBC One HD, for example - can be pinned to it for easy access. Shortcut heaven.

A shortcut button on the remote opens up Netflix and we give martial arts sequel Crouching Tiger, Hidden Dragon: Sword Of Destiny (in 4K) a whirl. It's hard to say which strikes us first: the Panasonic's impressively sharp, spanking clean picture or the film's dizzying inadequacy. But we'll concentrate on the former.

We are now much more accustomed to how good 4K content looks than we were 12, or even six, months ago, but still it shouldn't be taken for granted especially on a TV as good as this.

The Panasonic uses the sharpest tool in its shed to etch the edges of swords and brickwork of temples, and lends splintering shards of ice and snow real precision as they fly towards the camera.

#### Colourful contrasts

There's a pleasingly enthusiastic palette to enjoy - opulent samurai clothing and colourful oriental upholstery are rich and deep, but mostly faithfully so.

Contrast is good too, the Panasonic diving deeper into blacks than the film's director does into slow-mo effects (and that's saying something). It extracts decent detail in dimly lit scenes too.

Courtyard swordplay scenes are smooth and stable too, even if the TX-50DX700 needs a slight helping hand from motion processing modes in its picture settings.

We'd like better layering and depth when it comes to the surreal landscapes though, and we've seen similarly priced sets better distinguish foreground and background detail fighters against a forest backdrop and Chinese lanterns floating down a river, for example.

What about HDR, you say? Right now, there are three ways to watch 4K material in HDR: via Ultra HD Blu-ray, Netflix or Amazon - although the TX-50DX700 isn't yet compatible with the latter's HDR content, which accounts for most of what's available at the moment. Panasonic says support is en-route via an imminent firmware update, but it's something to bear in mind if you're shopping for a new telly.

#### **HDR** streaming

Season one of Marco Polo is one of the few ways to enjoy HDR material on Netflix, and on the Panasonic an 'HDR' logo appears on the app's interface, indicating the TV's compatibility. On a non-HDR set, this logo is absent. While the Pana's rich hues and meticulous insight makes for a compelling watch, the overall picture isn't quite as impressive as we hoped. Gold armoury isn't as resplendent and costumes not as intricately shaded as they could be.



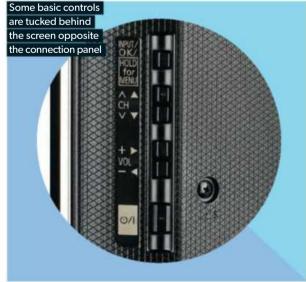




Adjustable feet



50in screen





The Panasonic's rich colour palette reveals itself again as we play a Blu-ray of *American Hustle*, in everything from Christian Bale's mahogany velvet jacket to Amy Adam's ginger hair. It's a crisp picture that fills the Panasonic's screen with sharp, well etched lines and fine insight. Would a bystander walk past and think the TV is upscaling as much as it is? Doubtful.

Escape To The Country in standard definition is our last port of call and, while lines become notably softer, it's a good upscaling performance in general. Colours remain solid - countryside greens are as bold as red-brick buildings.

It's worth fighting for the centre spot on the sofa with the TX-50DX700, though as, off-axis, the picture looks noticeably more washed out, with edges not as defined and colours not as deep as they are when you're looking head-on. We find the screen's glossy (as opposed to matte) quality is fairly reflective too, which can be distracting in well-lit rooms.



The neat, slim, multi-function remote's silver finish matches the screen's bezel

#### "Ultra HD Premium certification is finally 'a thing' and already HDR is no longer exclusive to flagship models but is filtering down to humbler screens"

The Panasonic's sonic balance and body, perhaps something to do with its reasonable physique, is pleasantly surprising - we aren't left wincing during sword contact and broken windows. All we would say is that in a medium-to-large room you'll need 75 per cent of the TV's volume capacity. Thankfully it doesn't sound like it's overexerting itself pushed that high.

4K, HDR, UHD Premium... the implementation of these superior picture technologies and formats have certainly caused a bit of a hoo-ha, with some uncertainty surrounding their definition and packaging. But now the dust is finally settling on this 'new era of TV', it seems we've come out the other side with well-specced, future-proofed tellies, at decent prices, ready to make

the most of the new and exciting content that's now emerging.

The Panasonic TX-50DX700 is one of them and, despite making us sit tight for support for Amazon's HDR material, puts Panasonic's 2016 range off to a solid start.



**VERDICT** A solid, future-proofed, well specified performer that proves just how accessible 4K and HDR now are

## AS POLISHED AND UNRUFFLED AS LEGO MAN'S HAIR

## LG OLED55C6V £3000

FOR Dolby Vision and HDR10; AGAINST Edges can appear rich, punchy hues; WebOS

over-etched



At CES earlier this year, LG was competing with Samsung and Panasonic to announce the world's first UHD Premium-certified TV, but the Korean giant was even keener to get in first with Dolby Vision, Dolby's own end-to-end HDR solution and the alternative to the HDR10 standard adopted by both videostreaming services and Ultra HD Blu-ray.

LG is currently the only TV brand supporting the format, with US manufacturers Vizio and TLC covering the other side of the pond. At the moment. Netflix streams Dolby Vision alongside HDR10. Universal, Warner Bros, MGM and Sony Pictures are all in talks to include the system.

#### **Compatible format**

Although the two HDR standards could have waged an ugly format war and given potential TV buyers a headache, we can all breathe a sigh of relief. With LG tellies, it's not a case of either/or. It's both.

LG's 4K OLED range, very much the talk of the TV town last year, continues to dominate the company's 2016 line-up, and the OLED55C6V belongs to the next-to-bottom C6 range. Passive 3D support differentiates it from the lower-ranging, flat-panelled B6 series.

Physically, OLED arrived very much as a curved phenomenon - it was some time before LG took the iron to the technology

- but that's been turned on its head. The OLED55C6V and its 65in brother are the only curved OLED screens in this year's eight-strong line-up.

Clearly weight-conscious, the top half of this screen is among the slimmest we've seen - more like a smartphone than a TV - and even the protruding power pack below keeps things relatively slimline. The 'floating' stand we saw on some of LG's models last year, where transparent acrylic connects the base plate to the panel, makes a welcome return too. this time in a more discreet black finish.

Since its introduction in 2014, WebOS has been the darling of TV software platforms and continues to gain our affection in its latest 3.0 version. It's just as slick and intuitive, but now has a greater focus on content discovery. Two new tabs - My Channel and My Content - are now part of the colourful cardlauncher home menu, offering shortcuts to your favourite channels and content.

**Dolby Vision** 

and HDR10

**KEY FEATURES** 



OLED

## LG manages to keep the OLED55C6V slimline, even when there's tech to pack in

#### A wizard idea

LG appears to have named WebOS's three new features while on a day trip to The Wizarding World of Harry Potter. The first of these is Magic Zoom, which lets you magnify anything on the screen, pause and screenshot it if necessary - goal-line technology in your living room? Quite.

Magic Mobile Connection offers a straightforward way of connecting your smartphone to the telly via the LG TV Plus app, so you can share content as well as pair the telly with Bluetooth devices via your phone.

Lastly, the upgraded Magic Remote is now more geared to control set-top boxes thanks to the addition of power and EPG buttons. Otherwise the smart wand - combining an on-screen cursor with physical buttons - is much the same. Taking centre stage is a search button for rummaging content across live and scheduled TV, YouTube and video-streaming services.

Amazon, Netflix and wuaki.tv join BBC iPlayer, Demand5 and Google Play on the apps front. Freeview Play, which combines Freeview TV with the full array of UK catch-up TV services, will complete the bundle via an update that should have happened by the time you read this, so there's no need to remember to record Gogglebox and Dinner Date.

Multi-view lets you watch two sources side-by-side too, so you can keep an eye on the football scores while watching the latest Mission Impossible. And a music player app - in the form of a widget that can be moved around the screen - can play music files on your network or an attached device, even when the TV is off.

#### The quest for perfection

LG promises Perfect Black and Perfect Colour from its OLED TVs and, though it may just be marketing lingo, we can't argue against the former. Its self-lighting pixels provide truly lights-out blacks. Sceptical? Stand it next to a turned-off TV and see for yourself.

It's a stretch to label the LG's colour reproduction 'perfect', as it sits on the rich side of neutral. But while it might not be the most natural palette we've encountered, there's no denying that its full, lush hues are stunning - especially with HDR material.

Netflix plans to have more than 150 hours of HDR programming by the year's end, available to anyone with an Ultra HD subscription, but for now we have to settle for the first series of Marco Polo which the LG plays in Dolby Vision.

You may have run the THX Optimizer disc over your picture, but upon detecting HDR content (a small banner on the top right-hand corner flags when it does), the telly kicks into specific picture settings: with Vision, it's Vivid, Movie Bright or Movie Dark - the last of these is the most likeable and gives you the most leeway for tinkering with individual picture settings.

#### **Luscious landscapes**

The picture is clean, detail spills from every pixel and outlines are needle-sharp - if a little over-etched at times. You don't have to be watching a Wes Anderson movie for colours to explode on the screen: a glistening armoury, sunbeams in subtle gradations and the opulent interiors of temples stronger than the warriors who inhabit them. The LG's meticulous depth perception and layering of mountains, lakes and deserts really capture the vast openness



of the shots of rugged Kazakhstani landscapes, too.

We switch to Mad Max: Fury Road on Ultra HD Blu-ray - plugging the Panasonic DMP-UB900 player into one of the LG's three 4K- and HDR-ready HDMI inputs - and, upon detecting its HDR10 layer, the LG offers you Standard, Bright or Vivid HDR modes. Standard is our preference as it's the most adaptable; we take contrast down a notch and turn on a small degree of motion processing to smooth out minor blur. The result: an action-packed car chase that's as polished and unruffled as Lego Man's hair.

The richly hued reds, oranges and yellows that help give the film its graphic-novel look are a visceral assault on the senses. Fire burns bright just pixels apart from the jet-black bars, and red flares and truck lights are luminous against the night sky. If there's so much as a glint on a tooth, the LG clocks it.

As we move down to 1080p Blu-ray, we're still treated to the crispness, texture and dynamism that makes you



LG's Magic Remote technology has been designed to work with set-top boxes as well as with the TV

#### "The richly-hued reds, oranges and yellows that help give *Mad Max: Fury Road* its graphic-novel look are a visceral assault on the senses"

want to expand your collection. Despite the mammoth upscaling task, the picture looks clean, attentive and no longer second best to anything produced by a good Full HD TV performance.

Even with standard-definition programmes, the LG bends over backwards to keep as much picture noise at bay as possible. Edges are a little smudged, but it looks respectable.

Thanks to LG's partnership with Harman Kardon, the OLED55C6V sounds more full-bodied than its physique suggests. It can't match a good soundbar or surround package, but it's perfectly listenable and there's no shortage of clarity or volume.

If 2015 was the year of 4K, this is the year of HDR. Everyone is getting on board, and while content is likely to

remain touch and go until the year's end, the OLED55C6V (which may as well have 'future-proofed' stamped across its forehead) is waiting with open arms. If this is LG's middle-of-the-road offering, we can't wait to see its flagship models.



**VERDICT** LG continues its fine form with this impressive-looking, future-proofed 4K OLED screen

## LET'S GET READY TO PARTY

## Samsung UE55KS7000 £1500

**FOR** Subtle performance; good definition; natural colours | more substantial; no 3D

**AGAINST** Sound could be



Towards the end of 2015, Samsung had a massive party. We don't know this for certain, but we reckon it's a fairly safe bet. When you dominate the entire TV category at the What Hi-Fi? Awards, you probably don't go home that evening and look at etchings. It stands to reason the team must have celebrated long and hard before taking a well-deserved holiday, perhaps.

Or maybe not. As we take a first look at one of Samsung's 2016 TVs, we get the distinct impression that the next day in the lab was pretty much business as usual. Instead of getting complacent, the company's very next product to arrive in our test rooms is evidence of vet more hard work.

#### One billion colours

This is the Samsung UE55KS7000. It is the junior member of Samsung's elite SUHD squad, which sits at the top of the range. Or if you prefer, at the bottom of the top tier. Or the far end of the VIP table. But however we look at it, that translates as a lot of top technology for less of your money.

And by top tech, we mean a 4K Ultra HD resolution of 3840 x 2160 pixels for starters, plus High Dynamic Range (HDR). It has a 10-bit panel and a peak brightness of at least 1000 nits (one nit is the brightness of a candle). It also uses the BT.2020 (very wide) colour space.

qualifies for a UHD Premium sticker, the industry standard for serious TV specs. On top of that, Samsung has liberally sprinkled its own magic. The KS7000 uses 'Quantum Dot'

All of which means the KS7000

technology, another name for the Nano Crystal tech we first saw in 2015. That promises over a billion colours, which is 64 times more than conventional rivals. according to Samsung.

#### **Boundless enthusiasm**

Then there's the design, which is certainly not rushed. A 'Boundless' frame (which roughly translates as a very thin bezel) means there's not much to distract you when you're looking at the screen.

It's a slim set, thanks to the edge-lit LCD panel and the external One Connect box, which houses most of the inputs (four HDMI, three USB).

A 360-degree design means every effort has been made to ensure the TV looks pretty the whole way round. This means there are no visible screw holes, for example. It certainly looks neat, which is something of a bonus, even if we don't know anyone who deliberately walks around the back of their TV to seek out imperfections.

Here's something new: the feet don't require the usual screwing that accompanies most televisions. All you do is slot them in until they 'click'. Or at least that's the theory. On our review unit, one foot clicked into place but the other would not catch, and fell out as we lifted the TV.

It's not an issue in situ, although we wish there were an option to position the feet closer to the centre of the screen. Not everyone can live in an enormous showroom with huge benches for the TV to sprawl across.

#### **Getting smart**

A word on the smart stuff. Last year, we felt Samsung's Tizen-based operating system was aesthetically similar to LG's lovely WebOS interface, but in practice lacked its rival's smoothness and refinement. Samsung appears to have taken this criticism on board, and the revamped interface is a huge step in the right direction.

Everything still revolves around a pop-up bar, which houses all the apps and menus - only this year it is a lot more intuitive to click around, thanks to a nice layout and handy shortcuts. It's much faster, too. Waiting time is the death of any operating system, and thankfully it has been minimised.

The Smart remote control has been redesigned too. It has the usual problem of being a little on the simplistic side, but it is more ergonomic and nicer to handle than Samsung's previous efforts - and the most important keys, for volume and channel control, are pleasant to use.

Time to play. We begin with 4K, streamed from Netflix and Amazon. The picture is as sharp as you like, but we're impressed by the TV's subtlety too. It doesn't have the artificial, etched quality you get with shop demonstrations. There's enough definition to count the individual raindrops on a windscreen, plus the clarity needed to make out the accompanying condensation.

#### **Retina-melting dynamism**

Then there's 4K on UHD Blu-ray, provided by a Panasonic DMP-UB900. This has the advantage of High Dynamic Range (HDR), and we are very impressed by the contrast offered.

UHD Premium certification does not always mean retina-melting levels of dynamism. The KS7000 doesn't have the outright impact of the flagship Panasonic TX-65DX902, for example, but that's not necessarily a bad thing. What you get, as with the level of sharpness and clarity, is remarkable subtlety. Instead of solar brightness and abyssal blacks, you get fine increments of shade.

Shadows offer different levels of murkiness. You can quite easily make out the outer part of a shadow (the penumbra, for those in the know).

#### Adding a sense of depth

The same subtlety applies to colour. Skin tones are realistically varied, even around the awkward contours of chins and cheekbones. The same applies for paint on cars, with the sunlight bouncing off it at a variety of angles. The subtle colours not only make for a more convincing image - it also helps to add a sense of depth.







HDR



Screen size 55in





There's no 3D here, as Samsung has decided to kill off the feature. Though little-used and largely unloved, this will be frustrating for anybody who has a 3D Blu-ray collection.

We move on to Blu-ray for a bit of 1080p high definition action, and the KS7000 proves to be an excellent upscaler. There is the expected drop-off in quality from the 4K feed, but the TV does a good job with Fargo of defining tyre tracks on snow, as well as Steve Buscemi's teeth, while retaining the subtlety of contrast and colour. Even without the benefit of HDR, clothing is rendered with strong dynamism and convincing depth.

#### Sound reinforcement

Watching standard definition broadcasts is somewhat fuzzier, as expected, but we're impressed by how well the KS7000 copes. It is perfectly watchable - despite the massive drop in detail, sharpness is impressive, and there's little evidence of picture noise.



Samsung includes two remotes, one 'smart'. Or use an app on your phone

## "The UE55KS7000 is the junior member of Samsung's top-of-the-range SUHD squad. That means a lot of top technology for less money"

If we had to pinpoint an area of weakness, we would probably nominate the sound. While it's nicely balanced and has a decent weight, never approaching the sort of hardness we've heard from many slim TVs, it is not the most substantial-sounding set.

It's more than good enough for everyday viewing, but if you're after a fuller movie experience, we might suggest some reinforcement in the form of proper speakers, or at the very least a soundbase or soundbar.

#### It's party time

Samsung won five of our Awards last year, including the coveted TV Product of the Year gong. But it certainly hasn't let that success go to its collective heads, nor has it rested on its laurels. Instead it has made use of its momentum - and the result is nothing is nothing short of spectacular. If the UE55KS7000 is anything to go by, Samsung may be gearing itself up for another spectacular blow-out at the end of this year.



**VERDICT** Samsung has built on last year's momentum – and in the KS7000, the result is nothing is nothing short of spectacular

## MOSTLY TV, PARTLY PROJECTOR

## Philips 65PUS8901 £4000

**FOR** Vibrant, sharp picture; easy to use; Ambilux is fun

AGAINST Black depth is lacking; motion issues; price



The Philips 65PUS8901 has a 65in screen with 4K resolution, it comes with popular streaming apps ready to go, and will be compatible with HDR (High Dynamic Range), albeit after a software update later this year. It's a premium screen too, ranking high in Philips' line of 2016 TVs, and sells for a cool £4000.

Essentially, this Philips TV ticks every box for a modern TV. And yet, none of the things listed above is this screen's highlight. The highlight is the immersive, picture-extending, madscience concept of Ambilux.

#### How it all began

Ambilux is an evolution of Ambilight, a feature of Philips TVs for more than a decade. Ambilight uses LEDs that mimic the colours on the screen, casting a soft glow of light around the TV. The idea is to create a more immersive experience by extending the picture on screen.

Ambilux turns that concept up past 11. Instead of LED lights, the 8901 uses nine tiny projectors that display the screen's image onto the wall behind the TV. It's more dynamic, there's more motion and detail, and you can pick out characters and objects. It sounds and looks bonkers, but it's ridiculously good fun.

What makes it more than a flashy gimmick is that Philips recognises the effect might be distracting to some, so every aspect of Ambilux is customisable.

**KEY FEATURES** 



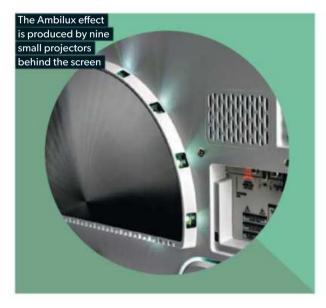
resolution



 ${\bf Google Cast}$ 



**Ambilux lighting** 



You can adjust the intensity, the size of the halo, the colours, and even tone it down to a gentle mood light.

You get plenty of different modes, too - 'Extreme' and 'Tunnel' are best for intense gaming, while the gentler 'Dome' effect is more suited to watching TV. But it doesn't respond only to pictures. Ambilux works with music as well, with various patterns pulsing according to the beat. Our favourite is the fun-packed 'Retro' mode.

At first, Ambilux is distracting, so you might want to turn it down to its gentlest setting and then work your way up. But, just like the more sedate Ambilight, once you turn it off you'll wonder why your TV's picture has suddenly shrunk. You'll also start to wonder why every TV doesn't come with Ambilux.

#### Android at your service

Philips' smart portal continues to be powered by Android TV. The simple homepage design is easy to navigate, even if it isn't the most interesting or dynamic of interfaces.

An upgrade to Android 6.0 is due later in the year, which promises a cosmetic touch-up and swifter actions. Until then, the neat arrangement of apps, services, recommended content, inputs and TV settings is easy to get acquainted with.

Streaming fans will be happy to hear Netflix and BBC iPlayer are ready to go straight out of the box. But you'll have to wait for a software update to get Amazon's video app (which should coincide with the HDR update) and even longer for the remaining UK catch-up TV services. But there is a way around this. Download ITV Player or All 4 (or any other compatible app) onto your smartphone and simply ping it over to the Philips TV using GoogleCast.

Scrolling through the smart interface and Philips' labyrinthine picture settings isn't entirely smooth, with some lagging issues cropping up. It's responsive for the most part, though, even if it does sometimes get confused when we click too fast on the remote control.

If you're familiar with Philips' TV remotes, you'll appreciate that they include a QWERTY keyboard at the back, which makes typing in wi-fi passwords

and YouTube search terms so much easier. The 8901's remote has a D-pad that's also a touchpad, although we do find this can get in the way when you're pressing the buttons as normal. On the plus side, you could probably defend yourself against a burglar with the new remote: it's a big, hefty slab.

#### A vibrant experience

So how does the Philips TV actually perform? Much like the Ambilux feature, the 65PUS8901's picture is a vibrant burst of colour. The primary colours of *The LEGO Movie* (on Blu-ray) pop out, and the bold yellows, vivid oranges and deep blues are exciting to see. This Philips is an impressive screen.

Each brick is etched out sharply, and there's a good amount of detail to keep your attention. This eye-catching quality is even more evident when watching a 4K stream on YouTube or *Mad Max: Fury Road* on 4K Blu-ray. The picture is searingly bright (sometimes a little too glaring), but the 8901 uses that resolution to show off the dust and grit in those insane car chases with admirable clarity.

Where the 8901 starts to lose its grip is with motion. Whether it's a slow pan or a fast-paced action sequence, you can see faint judders and hiccups around the outlines of objects. You can activate the motion settings to smooth things over, but we find it looks too processed, too artificial - and still doesn't fully stabilise the motion handling.

#### In search of subtlety

Furthermore, dark scenes on the Philips don't have the intensity of rivals such as the Panasonic TX-65DX902B or Sony KD-75XD9405. Blacks simply don't go as deep on the 8901, which has a knock-on effect across the picture. Colour gradients aren't very subtle and you won't see much detail in shadows. That robs scenes of their layered quality because the space between a character and the background isn't clearly defined. The net result is that it all looks rather flat and undramatic.

Skin-tones don't have too much variation, either, with the characters in Fargo all having a pinkish complexion that has nothing to do with the Minnesota cold. The pitch-black space



scenes in *Gravity* also expose uneven patches of backlighting.

On the positive side, the 8901's upscaling is more than decent. It was only a couple of years ago that Freeview or satellite channels looked dismal on a 4K resolution screen, but those days are long gone. Daytime telly on standard definition is perfectly watchable.

The sound isn't half bad, either. Dialogue is clearly heard, and there are no tinny or harsh edges. It's fine for watching *Countdown*, but if you want a more expansive sound for films we'd suggest a soundbar or 'base such as the Dali Kubik One or Geneva Model Cinema.

#### No distractions

From the plain black bezel to the skeletal feet, everything about the 8901 is minimal. Philips says this is to ensure that nothing distracts you from the 65in picture and the Ambilux experience.

The TV is slim and well built. But there are some practical caveats. It's large, with stand feet that are far apart so you'll need



The substantial remote has a D-pad and QWERTY facility

## "The highlight is the immersive, picture-extending, mad-science concept of Ambilux. It sounds and looks bonkers, but it's ridiculously good fun"

a wide support. And if you're really invested in Ambilux, be prepared to rearrange your furniture. For the full experience, you'll need a large, blank wall space behind the TV, preferably flat.

Positioning is crucial: the TV has to be exactly 24cm away from the wall for the tiny projectors to give their best show (brackets for wall mounting are available). That fuss is worth it if you're committed to Ambilux. And that's the crux of the Philips 65PUS8901: you'll be buying it for Ambilux, not for its picture quality.

This is a decent screen, but its motion, backlighting and subtlety issues mark it down, especially when rival screens offer far more detailed and accurate pictures.

And the final nail in the coffin? It costs £4000. Sure, you're paying for that Ambilux technology but it's a lot to fork out for a middling 4K picture, especially as the stunning 4K HDR Panasonic TX-65DX902B costs around £800 less. That said, Ambilux is an effective, immersive, fun feature that might just, for some, tip the scales in this TV's favour.



**VERDICT** A pricey screen with a vivid – albeit uncompetitive – picture, but the Ambilux feature is a novel highlight

## STARK CLARITY AND DARK DETAIL

## Sony KD-75XD9405 £5000

FOR Generous smart offering;
HDR; motion-handling; design think of

**AGAINST** Nothing we can think of



Let's cut to the chase: the daddy of Sony's 2016 TV line-up is a movie-lover's dream come true. The flagship KD-75XD9405 is a lounge-dominating 75in flat LED-backlit TV that supports Ultra HD and HDR through streaming and physical formats as well as active 3D. If that isn't enough to lose you in AV-centric reverie, perhaps the fact that it looks stunning will be.

Sony has opted out of the UHD Alliance's UHD Premium certification scheme announced earlier this year, instead running with its own 4K HDR logo. But the company claims the KD-75XD9405 meets the organisation's stringent specifications, which focus on the colour depth, brightness range and black level required to display HDR content to its full potential.

#### On the bright side

The company also claims that with the help of X-tended Dynamic Range PRO - processing that guides light towards specific areas of the screen - the KD-74XD9405 achieves three times the brightness gamut of a conventional LED-backlit set.

While Sony's XD93 range exclusively features Slim Backlight Drive - its attempt to deliver the desirable contrast of full-array local dimming in a slimmer design - the flagship goes all-out with full, and even, LED backlighting in a a few extra centimetres.

This screen can be wall-mounted, if
you feel your plasterwork will hold the
39kg weight, but plonk it on a tabletop

and it won't go anywhere thanks to a sturdy base plate stand, which is slightly raised and has a removable back cover so cables can feed discreetly underneath it and be hidden from sight.

deeper TV design. But that doesn't mean

it's piled on the pounds - far from it. The

beer mats and the bottom, where all the

brainpower is crammed, sticks out only

top is only the width of three or four

All set for Ultra HD

It's win-win for those already investing in an Ultra HD Blu-ray player, as all four HDMI ins are 4K-ready with 2.0 and HDCP 2.2 certification. There are three USB inputs too but, now there's much more 4K content available to stream, we make more use of the LAN socket - a more stable way of getting online than using wi-fi.

We're pleased Android's smart platform returns to Sony TVs in much the same form for a second year running - even if it doesn't quite have the simple charm of rival systems such as Panasonic's Mozilla Firefox or LG's WebOS. Menus are generally comprehensive and easy to follow, the home page comprising a neat list of sections headed by recommended content and followed by apps, inputs, games and settings.

Like all of Sony's 2016 Android-powered TVs, the KD-75XD9405 features YouView, which, like Freeview Play, is an all-inclusive platform that amalgamates all the UK's catch-up TV services (BBC iPlayer, ITV Player, All 4 and Demand 5) with a seven-day rollback EPG. It's not compulsory, as there's also a Freeview HD tuner and separate catch-up apps on the home page, but we like the idea of having it all under one umbrella.

#### **On-demand on hand**

Of course, Netflix and Amazon Instant Video - both now with 4K and HDR content in their catalogue - are present, along with lesser-known services such as wuaki.tv and MUBI. Because it's Sony, there's also the PlayStation Video store for buying and renting movies and TV shows, and PlayStation Now for disc-free game-playing. And because it's Android, there's GoogleCast and Google Play at your service too.

A shortcut for the latter has appeared on the remote, joining the existing Netflix one, but while the layout is familiar we aren't big fans of the soft edgeless buttons. We're pleased to see it also operates the Panasonic DMP-UB900 Ultra HD Blu-ray player, though, and this is very much where our journey into picture performance begins. After completing a full THX Optimization test, we watch the tray close on *San Andreas*, and even by the menu title we know that the Sony has some magic to work.

There's as much sense-shattering devastation as you expect from a Dwayne Johnson-starring blockbuster, and the Sony is a magnifying glass into each still and panorama that depicts San Francisco's remains.

#### **Devastating detail**

Crumbling buildings bask in texture, and household furniture floating down the river in the background can be made out as clearly as if you were looking at it in an IKEA catalogue.

The Sony's colour palette is on the rich, enthusiastic side of neutral, with the benefits of HDR flagged by the variants of shading in explosions and building fires. HDR may not hit you in the face as immediately as 4K does, but you hardly have to pore over the picture to see that faces, trees and pavements are filled with subtler, more nuanced colour gradations.

A fiddle with contrast and black levels soon gets the Sony's black depth to a standard an OLED - famous for its light-off blacks - wouldn't sniff at.

#### **Smooth moves**

The stability of the picture is pleasantly surprising as the speedboat tears through the water and the tsunami crashes over the city, especially when motion smoothness and clarity is bumped up a tad in the picture settings.

Crispness and stability is brought down a notch as we head over to a 4K HDR stream of *Marco Polo* on Netflix, but that's down to the intrinsically inferior nature of streaming. It's still a







4K



HDR



75in screen



picture a newcomer would raise an eyebrow to. The Sony's stark clarity and dark detail means you don't miss so much as a corner of a frame in candle-lit scenes, too.

#### Filling in the blanks

Native material is undisputedly the KD-75X9405's specialty, but it fancies itself a savvy upscaler too, as keen to sharply etch the uniforms in a Blu-ray of *X-Men: The Last Stand* as it is the players' sharp attire in a high-definition broadcast of the snooker World Championship.

The contrast of the green table and red floor is punchy and solid. As we switch over to standard-def BBC Two, snooker balls are, as expected, a little softer, losing their crisp outline and shine. But it's acceptable enough to keep watching.

Even a dated DVD copy of *Dirty Harry* holds up pretty well; colours don't lose their spark, and you aren't forced to look away as Eastwood pans his surroundings through binoculars. Picture noise is the main giveaway but it's not too damning.



Soft, rounded buttons aren't everyone's cuppa but there's now a direct-access key for Google Play as well as for Netflix

#### "Crumbling buildings bask in texture, and furniture floating down the river in the background can be made out as clearly as if it were in a catalogue"

It would be home cinema sacrilege to spend this much on a TV without having a good sound system to go with it, so if there are pennies left in the pot we'd plump for a decent surround package.

If you're wondering, however, whether it sounds good enough to tide you over until you can afford one, then the answer is yes. There's detail, clarity, and balance, with enough weight behind the presentation for casual viewing.

So, with the lower-ranging KD-55XD9305 also bagging five stars, it's two out of two for Sony. After a so-so run with TVs last year, it has raised its game.

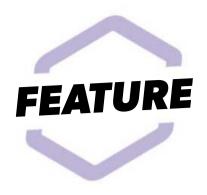
The KD-75XD9405 isn't cheap (albeit cheaper than its £6000 predecessor), but it embraces the industry's cuttingedge technologies and reveals their value. If not for the fact that 3D glasses

aren't included, we'd be more than ready to ask "what more could you want?"

We'll have to sit tight to see what Samsung, Panasonic and LG bring to the table, but for now the Sony KD-75X9405 is the one to beat.



VERDICT Going all-out to maximise compatibility and picture performance, the Sony flagship is currently as good as it gets



## HOW TO... Set up your TV



hoosing the right TV for your needs is only half the journey to reaching televisual nirvana. Once you've bought your TV and got it home, there are a few things you'll need to consider in order to get the most from it. We've pulled together some top tips to make sure you do.

#### Location, location

Putting your TV in the right place is one of the easiest things you can do to make sure it looks its best. Make sure as many people as possible view the TV straight on and not at an angle, where colours and black levels start to look washed out.

The screen should be at eye level when you're seated. This rule still stands for wall-mounting, so avoid the trend of placing it above a fireplace. If you must place it up high, angle it downwards to make viewing more comfortable.

Think about reflections - most windows have curtains or blinds, and of course lights can be switched off, but a dark room can also cause eye strain during long viewing sessions. Consider placing lamps or lighting behind your TV, also known as 'bias lighting'.

How far you sit from your TV will vary - but, when you're viewing in HD, rough guidelines suggest 1.5-2 times the diagonal size of the screen. Ultimately though, it comes down to personal preference and what works for you.

#### **Getting connected**

What will you be hooking up to your TV? Some will use an AV receiver and have all their sources plugged into that. Others may connect directly to the TV.

The best and simplest way to connect to each source is via an HDMI lead. This will ensure you're getting the best

#### **TV Distances**

How far you sit from your TV will depend on the size of your room and position of sofa – but, for viewing in HD, rough guidelines suggest 1.5-2x the diagonal size of the screen, as the handy chart on the right shows

Size (in)	Distance (m)	
32"	min 1.3m	
37"	min 1.5m	
40-42"	min 1.7m	
47"	min 1.9m	
50-52"	min 2.2m	
60+	min 2.5m	

picture from HD and 4K sources, and can carry both audio and video in one cable.

Many of the more affordable soundbars, though, connect to a TV using an optical connection, so it's worth checking that your particular model of TV has an optical socket - not all do.

If your soundbar does use HDMI, make sure you use the HDMI input on your TV labelled 'ARC' (Audio Return Channel). This will allow it to pass the audio from connected sources to the soundbar. This will also be the case with AV receivers, for passing the sound from smart TV apps back to the receiver to be amplified.

If you've bought a 4K TV, also keep an eye out for HDCP 2.2, which might be labelled on one or more of your TV's HDMI inputs. This is copy protection technology built into 4K-capable

"We're all for doing our bit for the environment, but your TV's eco mode setting can often affect the brightness of your screen and cause a variable performance"

devices, and you'll need to use these inputs for connecting to 4K sources such as Blu-ray players or receivers.

Most sets now feature some form of smart TV functionality, and you must connect your TV to your home network to access it. Most TVs will walk you through this in the settings menu - or you can hardwire via ethernet for the most stable connection.

As for accessing TV channels, if you're hooking up a satellite or cable box you'll do that via HDMI, and set-up takes care of itself. If you are using your TV's built-in Freeview or Freesat tuner, connect your aerial or satellite cable then run an auto-scan in the channel tuning menu.

#### Picture perfect

Now that's all done, it's time to turn your attention to the picture. Your TV will be set to the factory default settings, likely to be bright and overdriven to make it stand out on the shop floor. You can alter it for home use with a few tweaks.

Note, though, that whatever tweaks you make to the picture will usually apply only to the selected HDMI input. Some manufacturers offer a global option to apply your settings across all inputs, but you might find it beneficial to program inputs individually so you can make specific tweaks for specific sources.

At What Hi-Fi?, we use test patterns to set up TVs for reviewing. You can find THX's calibrator in the extras on some THX-certified DVDs (though hardly any Blu-rays) like Star Wars, Pirates of the Caribbean and Pixar movies. THX has a free app for Android and iOS - but we'll cover some of the main settings here.

If you want to start again, look for the 'restore factory settings' option in the settings menu.

#### TV mode

Most TVs offer a handful of preset modes, often a good place to start. You'll usually see variations on a theme of 'cool', 'warm', 'standard' and 'dynamic'.

Avoid dynamic (sometimes labelled 'vibrant'). It might look impressive, but colours will be oversaturated and whites overblown, losing detail in the process.

We tend to start with either standard or warm (sometimes called 'cinema' or 'pro') - the latter usually being the most colour accurate.

If you have a games console hooked up to the TV, you might want to select Game Mode if it's available on your set. This is a low-lag preset, with most of the picture processing turned off to allow for quicker response times – especially important in first-person shooter games.

#### Connections



**HDMI** A digital connection which handles video and audio



**USB** Digital connection which offers a great way to watch media files



**OPTICAL** Long-lived digital connector works for audio







**ANALOGUE** Video connections aren't used so much these days



Eco mode is another option built in to many TVs. We're all for doing our bit for the environment, but this setting affects the brightness of your screen and causes a variable performance.

#### **Contrast**

Contrast is another word for white level, and these controls will determine how white the brightest parts of the picture will appear. The aim is a bright image that keeps hold of highlight detail.

A good way to test this is a scene with clouds - turn the contrast up to the top and notch it down until you start to see detail rather than a solid patch of white.

With many LCD screens you'll be able to go quite high here - even as far as 80-90 per cent - starting at around 65 per cent should give you a marker. For a plasma screen, this should probably be a touch lower to avoid screen burn.

#### **Brightness**

Despite its name, this control actually tweaks the black levels of your TV. We want the blacks in an image to be as deep as possible without losing shadow detail.

Turn the brightness right up so the black bars above and below your movie look grey, and then nudge the level down until they look black again. Have something dark on the screen to focus on - a dark jacket or shirt - and keep going as low as possible until you start to lose the detail in the creases. Choose the level before that detail disappeared, usually somewhere around 50 per cent.

#### **Backlight**

This setting controls the brightness potential of your TV's picture (LCD sets only - plasmas don't have backlighting), allowing you to adjust it for different viewing environments. You might want to notch it down a little in a darkened room to help prevent eye fatigue.

This setting will be down to personal preference and environment - best to start halfway and play around.

#### Colour

The TV mode you choose will often tweak colour controls for you automatically, with the slider usually sitting around midway. Put on a busy scene and see if colours look bright enough - if not, push the colour control up a little for a touch more punch.

Next, bring up a scene with human faces to see if skin tones look realistic - this can be the trickiest thing to balance, so spend some time making sure everything looks natural.

If you can't strike a happy balance between vibrancy and realism, a play with the tint and/or hue settings might help, but we often find they're best left at the factory settings (usually 0 or midway).

## Bowers & Wilkins

## Designed for listening

The new CM Series loudspeakers are undoubtedly beautiful, capable of gracing any room with their clean lines and high-quality finishes. But as with all Bowers & Wilkins loudspeakers form must follow function, and thanks to our Decoupled Double Domes and tweeter-on-top technology you won't believe how beautiful your music can sound.

bowers-wilkins.com



Decoupled Double Dome tweeter



#### **Setting up**





#### Do adjust your TV

So you've got your new TV at home, wire it up and you're ready to go, right? Not yet! Most sets are factory-preset to levels of brightness, contrast and colour, which in natural light appear too punchy and bright. It will also consume more power than it needs to. So this is where some careful tinkering around with the settings – outlined in our handy guide – will help

#### **THX Optimizer**

The THX Optimizer is a set of calibration patterns developed to aid consumers intent on achieving better picture quality. It is so effective that here at What Hi-Fi? we regularly use it in our testing process. Load it up and you'll find a simple step-by-step series of picture test patterns, such as this one which tests brightness using a range of shadows and squares

"Aggressive motion handling can result in a blurry halo around a moving object. It gives an unrealistic sheen called the 'soap opera effect' which makes Hollywood blockbusters look like *EastEnders*"

#### **Sharpness**

Adding sharpness to an image might sound like a good thing, but it rarely is, and can leave an image looking unnatural and even rob it of subtle detail. For the most part we suggest keeping this very low indeed, usually no higher than 30 per cent.

To test this, take an image with a strong edge and focus on that as you nudge up the sharpness from zero. At some point, you'll notice the outline start to look unnatural and oversharpened, with a sort of halo appearing around it - you don't want this, so knock the slider back down until it disappears.

Going hand in hand with sharpness is overscanning, a process that dates back before the days of HD, when broadcasters used to hide non-picture data at the edge of the TV image. You'll need to make sure this is turned off in order to get the full picture.

Look in the menu settings for the aspect ratio, and make sure the screen is set to 'full', '16:9' or similar.

#### **Processing**

Most manufacturers fill their settings menus with a whole host of processing options, which can not only be confusing but often make the picture worse.

That's not to say they're all write-offs - there have been improvements in recent years - but it's a careful balancing act. You'll rarely gain something in one area without losing in another, however.

We suggest you start with all active processing modes off, adjust your picture settings and go from there. You can then test any options from a good starting point to see if they make any improvement to your picture, making sure to start on the lowest setting for each option before pushing it up.

Here are some of the most popular processing options to look out for:

#### **Black and white enhancers**

For the most part, the best thing you can do for strong black and white levels on your TV is to set your contrast and brightness settings properly. Any added processing to make blacks blacker or whites whiter generally does more harm than good, and will often take a lot of detail from them in the process. Depending on the brand, a low setting on either might be worth a look, but we'd lean towards keeping them off entirely.

#### **Dynamic contrast**

This setting will see your TV adapt its brightness depending on what is on the screen - so during a darker scene, it will go dimmer to hit deeper blacks, and then bump up the brightness for a light scene. We'd switch this off - it's not always reliable, and can cause flickering and brightness jumps in scenes with both bright and dark elements.

#### Noise reduction/edge enhancement

Noise reduction, or anything of a similar name, will often soften a good HD image too much, snatching away detail in an attempt to make an image less noisy.

The same goes in reverse for edge or detail enhancement, which will usually increase noise in a picture by trying to boost definition. The only time these settings come in useful is when watching non-HD broadcast TV – otherwise we'd make sure these stay firmly off.

#### **Motion handling**

This is one of the biggest options when it comes to TV processing, but despite decent recent improvements, ultimately you're still gaining a smoother-moving object for a less stable overall image.

Coming under several manufacturer names: Trumotion (LG), Motionflow (Sony) or Motion Plus (Samsung), it analyses the image and inserts repeated frames or blank ones into the video sequence to prevent a jerky end result.

Aggressive motion handling will often result in a blurry halo around a moving object, while in movies it can give an unrealistic sheen called the "soap opera effect". It makes Hollywood blockbusters shot at 24fps (frames per second) look like an episode of *EastEnders* at 60fps. For this reason, we'd recommend setting it to off or low for movies.

Better results can often be achieved when motion controls are separated into blur and judder controls. If your TV offers this, we'd suggest leaving both on lowish settings.

#### Sit back and enjoy

Now your TV is all set up, all that remains is for you to feed it the best source material that you can, sit back and enjoy. Happy watching!

## 4KULTRA HD TV



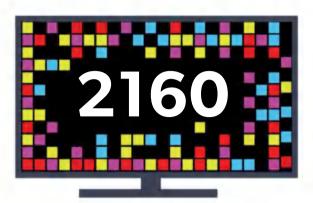
**Standard Definition** 

414,720 pixels



**High Definition (1080p)** 

2,073,600 pixels



**Ultra High Definition** 

8,294,400 pixels

#### WHAT IS 4K ULTRA HD TV?

With more 4K Ultra HD TVs on the market, a wider choice of screen sizes, falling prices and (finally!) some content available, 4K TV is now a serious proposition. If you've so

far resisted the temptation, now might be the time to take the plunge.

So what is 4K TV, and how (and where) can you watch it? Officially, 4K resolution is 4096 x 2160 pixels. However, in order to shoehorn this higher resolution video on to a normal 16:9 picture format, it has been altered to 3840 x 2160 - that's four times the total number of pixels on a Full HD 1080p screen (1920 x 1080).

In order to take full advantage of 4K Ultra HD you will of course need a compatible TV, a source and content that fills those all-important extra pixels.

#### Choosing a 4K TV

The 4K TV market has expanded considerably over the past year or so, with ultra-cheap Chinese sets competing alongside big-name TVs.

To make the most of Ultra HD, we wouldn't recommend using anything too small, as it rather negates the benefits. A 43in 4K TV can be bought for as little as £300, but if you can afford to splash out, the 2016 LG 4K OLED TV range starts at £3000 for a 55in and goes right up to £25,000 for the flagship 75in.

#### What can I watch in 4K?

Netflix has been streaming 4K content since 2014, with *House of Cards: Season 2* making history as the first 4K streaming content and *Breaking Bad* following shortly afterwards.

To watch Netflix 4K you will need a 4K TV with the HEVC codec. Sony has struck a deal with the streaming company to ensure that its TVs get the best out of Netflix, but we have also seen compatible TVs from LG, Samsung and Panasonic.

Amazon's 4K content comprises mainly TV shows, available to stream through its Prime Instant Video service. YouTube also has a selection of 4K videos, but you'll need to make sure your TV or monitor supports the VP9 codec developed by Google.

The first, and so far only, 4K TV channel in the UK is BT Sport Ultra HD, available via the BT 4K box. Broadcast via an internet connection rather than over the airwaves, it mainly shows live Premier League and European football matches, and also Aviva Premiership rugby.

Live sport is also the focus for the newly launched Sky Q, which should start broadcasting 4K content later this year. The current rumours are that that a potential launch date has been set for the beginning of the 2016/17 Premier League football season in August. The BBC originally intended to broadcast 4K as standard by 2016, with the Rio Olympics a key event. However, the BBC has recently confirmed that it will continue to experiment with the format, and there will be no consumer-facing content from Rio.

The good news is Ultra HD Blu-ray is here. The choice of Ultra HD Blu-ray player is limited, but we've already seen the Panasonic DMP-UB900 and Samsung's UBD-K8500. 4K discs are now on sale in the UK.

#### Verdict

If you doubted whether 4K would ever make the breakthrough, it does now look like the resolution is here to stay. The amount of available content has finally made taking the 4K plunge a worthwhile proposition.

With the prices of 4K TVs coming down (rapidly), and the level of choice increasing, it's more viable than ever to put a 4K TV in your home. As such, 4K should be a real consideration for when you buy your next TV.









#### GETTING SET UP WITH 4KTV

You will need a compatible TV, a source and some 4K content. It looks as though 4K is here to stay – and the choice of TVs available to buy is reflecting that.

If it's live sport you want, you'll need a subscription to Sky Q (when 4K broadcasts get going later in the year) or BT Sport Ultra HD, and likewise for films, Netflix or Amazon Prime.



## Multi-room audio streaming

The Stelles Audio SA60 Streaming Portable Radio has the ability to connect you to the world via Internet Radio, DAB+, FM, Bluetooth or Spotify as it features UNDOK™ connectivity (for wireless networks).

Available in three gorgeous finishes, (black, white & walnut), the SA60 can be easily integrated into an elegant multi-room streaming audio set-up.

The Stelles Audio MS2 Music Streamer adapter with UNDOK™ allows you to easily incorporate your existing speakers into to a multi-room streaming audio system - up to a maximum of 16 zones.





### MUON JUST GOT MIGHTY SMALL



"If the KEF MUO was to walk into a roomful of Bluetooth speakers, there's no doubt a respectful hush would descend: it's royalty when it comes to audio quality."

Alphr, February 2016



#### Design by Ross Lovegrove. Sound by KEF.

Innovation disrupts. When KEF collaborated with design guru Ross Lovegrove to create the mighty MUON, it rocked the world of extreme high end audio. Inspired by the mighty MUON's sculptural organic form and breakthrough technologies, the MUO makes new waves in the pursuit of art and sound perfection.

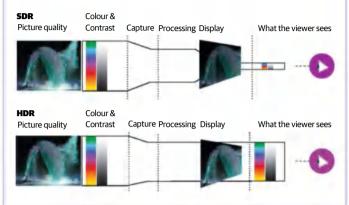




## HDR

#### What we see?

HDR is about widening the colour range to display finer increments of shading. That sounds fairly technical, we know, but the result is what we care about – and that is a more lifelike, hugely impressive picture.



#### WHAT IS HDR?

'HDR' stands for High Dynamic Range, and is the next big thing in TV. Originating from photography, it refers to a technique that widens a picture's dynamic range (the contrast between the brightest whites and the darkest blacks).

#### Finer increments of shading

The theory is that the higher the dynamic range, the closer a picture gets to real life. Your TV's limited dynamic range, its inability to illustrate the finest differences in brightness, means you miss out on the nuances that really ought to be there.

But now TVs are much more capable, and by that, we mean brighter. A normal TV puts out around 100-300 nits of brightness, where one nit (derived from the latin for 'to shine') is equivalent to one candle. An HDR TV that qualifies for the Ultra HD Premium Certification needs to output 1000 nits at least.

This isn't about searing your retinas, however. It's about widening the range in order to display finer increments of shading. You get more details in the shadows and highlights: sunlight gleams properly off windows, colours appear richer and more lifelike, and have more gradations as well as greater shifts in tone. Basically, your picture looks more natural.

#### On the verge of something big

Of course, you'll need an HDR-compatible television or a projector, as well as HDR material - content filmed or mastered in HDR.

At the moment, HDR is nothing less than a very attractive proposition, but HDR compatible screens, such as the Sony KD-75XD9405 (p50) are still rare. However, with HDR content recently hitting the mainstream via streaming, more TVs will make it to the market. It feels like we're on the verge of something very big.

#### FILM STUDIOS THAT HAVE SIGNED UP TO HDR

Although there is currently no industry standard for HDR, the UHD Alliance (a coalition of studios and manufacturers) is currently working to reach a consensus





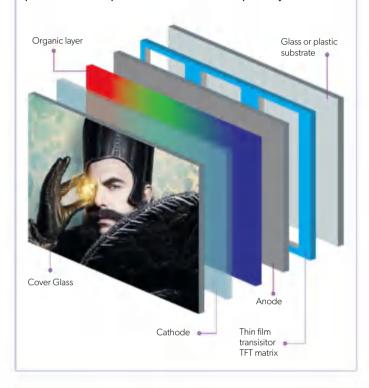




## OLED

#### What is it made of?

An organic light-emitting diode screen is made of five layers, including the layer of OLED pixels, a colour refiner and an anti-glare coating. It is possible to make a panel so thin it will flex in the palm of your hand.



#### WHAT IS OLED?

OLED TVs aren't a totally new concept. We first caught sight of one back in 2007 - an 11in screen costing around £3000. Although OLED TVs didn't really take off then, the technology made its way into smartphones and, eventually, televisions.

OLED panels are made from carbon-based materials (the 'organic' element) that emit light when an electrical current is passed through them. OLED, like plasma, is an 'emissive' system, so it offers the 'self-illuminating pixel' benefits of a plasma TV.

Contrast that with LCD TVs, which have a 'transmissive' display system, which requires light to radiate from either a single or multiple source from behind an LCD matrix to your eyes.

#### TV in the palm of your hand

OLED has several advantages over LCD panels and the plasmas of old. The backlighting panel on LCD TVs often results in uneven lighting or even light bleed, whereas no backlight means OLED TVs have almost perfectly deep blacks. Plasmas have cells of heated gas: images aren't particularly sharp, power consumption is higher, and the screens are a lot heftier.

But since OLED is made up of pixels that generate their own light and colour, there's no need for a bulky backlight panel. OLED is made up of just five layers, including the layer with OLED pixels on it, a colour refiner that manages the accuracy of hues and tones, and an anti-reflection coating on the screen that reduces glare.

In fact, it is possible to make an OLED panel so thin it will actually flex in the palm of your hand. But, for all the futuristic technology, it's the prospect of significantly improved picture performance that most entices us.

## JISID E Even hardened iPhone devotees must admit there are some amazing **Android smartphones** out there. And every one of these three is set to stun



## A FULL-ON RETURN TO FORM

### HTC 10 £570

**FOR** Build; screen; colour balance; audio performance

**AGAINST** Low-light photos could be better



After a few years of five-star success for HTC's flagship smartphone, last year felt like a bit of a misfire for the company. The One M9 was a good handset, but there were better and more exciting rivals out there. While HTC seemingly rested on its laurels, others around it were pushing forward - and the M9 was left behind.

Not this year though. In what would be the fourth year of the flagship One brand name, HTC has dropped it - and the M for that matter - for the simple moniker of HTC 10. This symbolic move is justified - the 10 has been reworked from the ground up, with no part left untouched or unimproved.

If there's one thing HTC has always excelled in, it's design. The metallic unibody of the HTC One M7 was one of the best-looking handsets we've ever seen, and its influence not only rubbed off on subsequent HTC phones, but also on the smartphone world around it.

HTC has taken its design in a slightly different direction this time, so instead of the smooth, fluid back panel we've seen before, it has opted for a more striking design, with a dual finish of satin-brushed aluminium and diamondcut, mirrored chamfered edges.

It still feels great and sits in your hand just as comfortably as its predecessors, with the more angled edges to its curved back giving it a little more grip.

The front panel is now a single piece of glass from top to bottom, incorporating two capacitive buttons at the bottom sitting either side of the phone's new fingerprint scanner. HTC says this will register a fingerprint within 0.2 seconds,

With this phone packing its new glass finish, HTC has had to rethink its front-facing Boomsound speakers. The re-engineered Boomsound Hi-Fi edition separates high and low frequencies; low frequencies are dealt with by a speaker on the bottom edge, while higher ones are managed by a driver in the earpiece.

The result is a louder and clearer performance compared with last year's M9 - and the best, most solid sound compared with the S7 and G5 too. There's more separation and space to the presentation, and overall it's a weightier sound.

Listening through headphones, the performance has been tweaked and

#### "There are no headline features, no gimmicks – this is a phone that takes the core functionality of a smartphone and really nails it"

IN DETAIL...



The bottom-edge speaker deals predominently with lower frequencies



The main camera now has optical image stabilisation and a larger f/1.8 aperture

and should get faster over time. It is certainly pretty snappy during our test.

The 10's screen sees quite a makeover this time round, increasing from 5in to 5.2in and being boosted from Full HD to a 2K Quad HD display with 564 pixels per inch (up from 441ppi on the M9).

#### Colours you can believe in

Colours are well judged, but still have a believable vibrancy to them. This means red, blues and greens in particular have great depth and punch, but don't ever look false or overdone. That said, the HTC 10 certainly has the warmest palette out of the three on test, and lends an overall warmer hue to proceedings than we'd ideally like.

Highlights don't have quite the same power to punch through a dark scene as you'll see with either the S7 or LG G5 either, plus there's a slight lack of subtlety in finer details.

Blacks go pretty deep for an LCD screen though, and while you'll get better absolute blacks on the Galaxy S7's AMOLED screen, it's a strong performance that won't leave you wanting.

Detail levels are strong too, and there's real precision to the HTC 10's picture, with crisp, sharp outlines and an excellent sense of depth. We'd say the G5 just pips it for detail, though.

improved from last year thanks to better audio circuitry. The HTC 10 supports 24-bit/192kHz hi-res music and has upscaling tech for 16-bit files.

As for how it sounds, HTC has really nailed it this year. Apart from being easily the best-sounding HTC phone we've heard, it's one of best-sounding phones this year.

It's a clean presentation, with plenty of drive and enthusiasm. There's plenty of space for large-scale tracks such as Hans Zimmer's *Gotham's Reckoning* and enough rhythmic know-how to keep ELO's *Mr Blue Sky* full of bounce and precision.

#### A revealing comparison

It can't see off the outstanding performance of the LG G5 with Hi-Fi Plus module though, which tops it for subtlety, timing, balance and space, but it easily bests the LG's standalone performance and shows up the Galaxy S7's as lacking a bit of life and punch.

We also listened to a handful of CD-quality tracks too, which don't feel lacking in comparison to their hi-res counterparts - testament to the HTC's music-playing capabilities.

If there has been an Achilles' heel to HTC phones in the past, it has been their cameras. Luckily HTC appears to have got its act together with this year's



charging and includes a fast charger for its 3000mAh battery - you can get up to 50 per cent charge in 30 minutes, with a quoted talk time of 27 hours.

**SMARTPHONES** 

**FEATURES** 

5.2in screen

24-bit/192kHz

The battery life is strong on the HTC 10, and even heavy users should be able to easily squeeze a day out of it. Hours of listening to music barely dented the 10's battery level, leaving us plenty of juice for a full day of WhatsApp, emailing and social networking. In testing, it lasts the longest out of the three.

Google has given

birth to an effective

operating system

It might have lost its focus last year but, with the 10, HTC is back to its best. There are no headline features, no gimmicks - this is a phone that takes the core functionality of a smartphone and really nails it, not to mention offers an excellent audio and video experience.



**VERDICT** A return to form for HTC – the HTC 10 is a superb smartphone that really takes the fight to Samsung and LG

camera. The main snapper is now 12MP (down from 20MP on the M9) with optical image stabilisation and a larger f/1.8 aperture for better low-light snaps. It also packs the company's secondgeneration autofocus. It's fast, but not quite as lightning quick as the Galaxy S7.

Results are good though - the auto mode is largely reliable as a point-and-shoot snapper, with well-judged colours, plenty of detail and sharp, well-defined outlines. It handles variable light better than the G5, but the S7 takes it for overall balance and detail. We still find low-light performance to be a bit hit and miss too, the Samsung S7 proving itself faster, brighter and more consistent (if a little more processed-looking).

#### Very selfie-conscious

The front-camera pixel count takes a dip to 5MP, but it packs the same bright f/1.8 aperture with optical image stabilisation - the world's first selfie camera with OIS technology. This means selfies look sharp and detailed, plus the 86-degree wide-angle lens ensures you can squeeze everyone in. 4K video recording is on

board too, with another first in the form of stereo 24-bit hi-res audio recording, which sounds cleaner and clearer in our test clips than on the S7 or G5.

#### **Best of both worlds**

HTC's collaboration with Google has produced an operating system with a user interface that looks like vanilla Android, the 10 adopting Google's bold Material design across its suite of apps.

There's no more bloatware or repeated apps either, with HTC providing only the best app for the job at hand. This means you'll get Google's Photos app but HTC's camera, which work seamlessly together.

The HTC 10 doesn't hold back on specification, with an LG G5-matching combination of the Snapdragon 820 processor and 4GB RAM, with 32GB or 64GB of on-board storage. There's also a microSD card slot offering a storage boost of up to 2TB.

The power it's packing shows in use. We are never kept waiting, whether dipping in and out of apps or burning rubber playing *Asphalt 8*. It has USB-C

## INTELLIGENT INNOVATION

## LG G5 with Hi-Fi Plus DAC £500

**FOR** Great picture; great sound; superb camera

**AGAINST** Lackadaisical sound without Hi-Fi Plus module



Smartphones don't tend to change much every year, but the folks at LG are mavericks who refuse to play the game of incremental updates. The LG G5 flips the table over with some huge developments: a dual-lens camera offers wider angles than the eyes can see, while an innovative modular design lets you add components yourself, including an upgradable DAC.

#### This is no facelift

It's refreshing to see an entirely new design, rather than facelifts of old ones as is often the case with Apple and Samsung. The G5 is a completely new model, with a chassis made of metal this time, although at 159g it is light enough to make you think otherwise. Build quality is good - not as luxurious as you'll find on the Samsung Galaxy S7, but this phone is nice to hold and feels sturdy neverthless.

There's a slight ridge between the edges and the back panel which LG calls the 'Shiny Cut' edge. That makes it less seamless than the iPhone 6s but, if anything, this helps with grip and makes it feel less likely to slip out of your hand.

LG were pioneers of back-mounted buttons, but now the volume keys have moved to the left edge. The power button remains on the back, doubling as a fingerprint sensor. The placement still works - it sits just where your index finger is likely to rest. On the right edge, the much-loved microSD card slot returns and is built into the SIM card tray, with support to boost the 32GB on-board storage by up to 2TB.

The LG G5 shrinks the screen down a notch from its predecessor, from 5.5in to 5.3in, but keeps the same QHD (2560 x 1440) resolution, which means 554 pixels per inch. It's a crisp, sharp screen that looks gorgeous, with a natural colour palette and brighter colours that pop without verging on psychedelic.

#### All there in black and white

The contrast looks very good for an LCD screen. Blacks are deep and whites look pure and bright. The iPhone 6S has more brilliant whites, but the LG counters with slightly greater detail and subtlety.

The display now features an optional 'always-on' mode, displaying handy

## "When armed with the Hi-Fi Plus module, the G5 is so good we would happily put it in the same bracket as some dedicated hi-res music players"

### IN DETAIL...



A detachable base allows you to swap the battery and add extra components



Ordinary lens? Check. Market-leading, super-wide-angle lens? Check

Another returning favourite feature is the ability to swap batteries. But how do you do that with a metal unibody design? The solution is a neat one: a button on the lower left edge ejects the bottom of the phone. This allows you to swap out the battery as well as upgrade the phone with extra components.

#### **Quick charge**

The battery doesn't have the stamina of the Samsung Galaxy S7, but easily lasts a whole day. It charges quickly too - we manage to get from 23 per cent to 100 per cent in just 20 minutes.

As for software, LG has again put its own interface on top of the stock operating system (Android 6.0 Marshmallow). As usual it is helpful and intuitive, with the exception of the complete removal of the app tray.

Your apps now sit on multiple home screens, similar to the system on the iPhone. That's sure to divide Android stalwarts, but LG has confirmed the app tray will be brought back as an option via a software update.

Under the hood of the LG G5 is Qualcomm's latest Snapdragon 820 chipset, with 4GB RAM supporting it. It is fast and responsive, with no waiting around between apps and no lag when swiping or multitasking.

information like time, date and notifications without needing to wake the phone. LG says this uses around 0.8 per cent battery life per hour - much less than would be drained by the 150 times that the average person checks their phone for this information in a day.

Finally, brightness has been given a boost to a dazzling 850nits - around double the brightness of the LG G4 - thanks to the new Daylight Mode, which really helps when using the G5 outside. Even better, it detects surrounding light conditions and automatically increases or decreases the brightness to suit.

#### Hi-res and hi-def

LG was the first manufacturer to feature high-resolution music on a smartphone with the G2, and the G5 continues that tradition with a built-in 24-bit DAC. It's also the first phone to support Qualcomm's aptX HD for lossless Bluetooth playback, although we are awaiting the arrival of some aptX HD headphones before we can test this.

The sound through headphones is good, but not amazing. You get good tonal balance and plenty of detail whether you listen to Spotify or CD-quality WAVs, and there's a lovely delicacy to hi-res tracks. The timing could be better though, and dynamics



stronger. It's an enjoyable listen, but not one that truly engages or entertains.

But this is where the G5's modular, slide-out design comes in, revealing a space for components to improve specific areas. Here, it's LG's Hi-Fi Plus module, developed with B&O Play: a dedicated DAC and headphone amp with its own headphone jack and support for hi-res playback up to 32-bit/384kHz. Once connected, it feels like part of the phone, sitting flush to the body and only adding a few millimetres to the design.

#### A real Plus

Compare the G5's native sound against that with the Hi-Fi Plus module, and the results are spectacular. Whether it's our hi-res tracks or CD-quality downloads from Tidal, it sounds significantly better with the enhancement. It easily fixes the G5's faults, providing hard-hitting dynamics and injecting a few doses of espresso for good measure. It still doesn't reach the puppy-on-Skittles energy of the iPhone 6S, but it is exciting.

What a difference this is. The default G5 sound is what we would call

lackadaisical but, when armed with the Hi-Fi Plus module, the G5 is so good we would happily put it in the same bracket as some dedicated hi-res music players.

LG is yet to release the price information officially, but the Hi-Fi Plus module is listed at a reputable retailer for £150. We think it's worth every penny.

#### See the broader picture

LG's main rear camera comprises two sensors - a 16MP sensor with the regular 78° lens and an 8MP super-wide-angle one with a whopping 135° lens - around 1.7x wider than any existing smartphone.

You can switch between these easily in the menu, plus there are a few modes that allow you to use both lenses at once, like Pop-out Picture that creates a picture-in-a-frame effect. There is also a full-fledged manual mode.

The camera is another area of the LG G5 that can benefit from the modular design. The LG Cam Plus module works as a camera grip for easier one-handed snapping. It packs zoom, video and shutter controls, as well as offering an

additional battery capacity of 1200mAh for longer shooting times.

**SMARTPHONES** 

**FEATURES** 

135° wide-angle lens

32-bit/384kHz

Hi-res audio (with

Hi-Fi Plus)

The main camera takes sharp, vibrant pictures even in dim light. They're not quite as sharp as the Galaxy S7, but the Samsung's photos look more processed.

module transforms

from 'fair' to 'great'

the LG's sound

The LG G5 is a fantastic bit of kit. It's not as slick as the Samsung Galaxy S7, but it is just as capable. And we give LG full marks for innovation. That camera is a joy to use, and the modular components are a brilliant idea that we hope will get more attention.

Then there's the Hi-Fi Plus module, which supercharges the G5's sound, taking the phone from what would have been a four-star rating up to an easy five. Taken together, these qualities confirm the G5 as the complete package.



**VERDICT** This LG possesses the twin virtues of innovation and performance – just what any smartphone needs

## THE MOON AND THE STARS...

## Samsung Galaxy S7<sub>£570</sub>

**FOR** Superb screen; microSD card slot: camera performance

**AGAINST** Music could have a touch more drive



The Samsung Galaxy S7 is like an S6 that's taken a long hard look in the mirror and vowed to be even better. There wasn't much on our particular improvements wishlist to begin with, but Samsung has ticked almost all the boxes anyway.

You won't find big flashy innovations here - Samsung has learned its lesson with that before. Instead, it's concentrated on some careful tweaking of an already-great phone to make it one of the best smartphones you can buy.

From a pure design perspective, the Galaxy S7 looks very similar to its predecessor, presenting almost identical dimensions to the S6. Spec-sheet twitchers will spot it's 14g heavier and 1.1mm thicker than last year, but that's not something you'll notice in the hand.

Pick it up though, and you will feel something different. While the build is still as high-quality as ever, all glass and aluminium, the back now has a subtle curve to its edges, making it easier and more comfortable to hold - and with a little added grip.

It's waterproof too (IP68 rated for handling depths of up to 1.5m for up to 30 minutes), something we haven't seen on a Galaxy handset since the S5. It's a welcome return though, especially since this time Samsung has waterproofed the microUSB port so there's no need for a fiddly rubber cover for protection.

Another welcome return is that of the microSD card slot, which was nixed last year in place of a more premium design. You'll now be able to boost the 32GB internal storage by up to another 200GB.

colours are cooler and less punchy, and skintones are a little on the pale side the G5 does a much better job here.

#### Deep blacks, bright whites

Detail is good though, with outlines crisp and sharply drawn, while blacks are market-leadingly deep. Contrast is superb too, allowing whites to really punch through even the darkest of scenes. This is helped by the fact the S7 goes brighter than either the 10 or G5.

A new feature this year is the Always On display, which allows you to have basic information, such as time and date, and even a simple illustration, appear on your screen at all times.

## "Samsung has concentrated on some careful tweaking of an already-great phone to make it one of the best smartphones you can buy"

The final design tweak is another subtle one, but one that will please the nitpickers. While the rear camera module jutted out someway from the slim body of the S6, Samsung has managed to get it much closer to the body of the S7.

Samsung's excellent fingerprint scanner returns too, as part of the home button - and it's as responsive as the best of them. We're still waiting on Samsung Pay in the UK, so for now the scanner is just for security, though you can authenticate Google Play purchases with it.

#### Still looking good

There wasn't a lot more we'd ask from Samsung in the screen department - last year's S6 display was among the best we'd seen on a phone - so we're glad to see that it's still looking as good as ever.

Thankfully Samsung hasn't been tempted by the battery-draining pull of 4K as on Sony's Z5 Premium. Instead it sticks with the same 2560 x 1440 2K Super AMOLED display from last year, in the same 5.1in screen size.

As ever there are a few screen modes to choose from and we find Basic gives the most natural balance. The only problem is that, for video, the Basic balance is a touch too understated when compared with the more vibrant hues of the LG G5 and HTC 10. This means

While we do find it useful, it's also distracting at times. When it is sitting on our desk, we find its always-moving, always-on display (it moves to prevent screen burn) will constantly catch our eye, so much so we often turn it over. At least you can turn the feature off.

This is the world's first smartphone with dual-pixel autofocus - something usually found in full-blown DSLR cameras. This basically allows for almostinstant focusing speeds in around 0.2 seconds. Not only does it mean you'll get great, sharp shots without waiting around, but it will also track fast-moving subjects and keep them in focus throughout. It works - the autofocus is the quickest on test, and can fire off shot after shot without a second thought.

#### Let the light in

This isn't the only improvement though. A larger aperture (up from f/1.9 to f/1.7) lets in 25 per cent more light, and an increase in pixel size means more than 50 per cent more light than before is absorbed. There's also optical image stabilisation to keep things sharp.

All of this should make for better results in low light, and we're pretty impressed in our tests. Taking a shot in a very dark room, the S7 is able to brighten it up and produce something usable, if a





MicroSD card slot returns, and camera module protrudes less than on the S6



Samsung sticks with a micro USB slot rather than the USB-C port of some rivals



and far
A new processor menus
and increased RAM games
means operation Regression the

little on the soft side. While there's arguably some over-processing going on, overlooking some detail that the G5 and HTC 10 won't, it lightens the shot nicely.

Photos taken in good light are strong too. Colours are bright and vivid, contrast is strong and edges are well defined - all things we've come to expect from Samsung in recent years. There's maybe a little too much sharpness than is realistic, but it's far from distracting.

Most importantly, the app is well thought out and easy to use, with all the controls you'll need, including HDR, to hand on the main screen. Overall, its auto mode is probably the most reliable of all three cameras in this test, and we can't imagine people being disappointed with the shots this thing is capable of.

As for video, it's available all the way up to 4K resolution. We stick to 1080p for the perfect balance of detail and file size, but there's also slo-mo and hyperlapse recording on hand.

It's not just the hardware that Samsung has listened to feedback on it's heard the cries for a less oppressive TouchWiz interface too, and acted on it. TouchWiz is still there of course, sitting over Android 6.0, but it's subtler.

Samsung's pre-installed apps are kept to a minimum and are all automatically tucked away in their own folder.

It's not quite as good as HTC's Google/ Sense offering, but it's definitely a step in the right direction. And if you really can't bear TouchWiz, the S7 allows you to use the Google Now launcher at set-up for a more vanilla Android experience.

#### All under control

Music sounds well-organised and detailed, with a low end that is tight and well controlled, and a lovely clarity to vocals that, if pushed, we'd say could just pip what we heard last year.

It could still do with a touch more weight and rhythmic drive to take on the HTC 10 though, which has a richer, fuller-bodied sound, and packs more punch and enthusiasm than the Samsung is capable of. Compare it to the LG with the Hi-Fi Plus module and this is clearer still, with better organisation and more space on offer from the LG.

To run the show, Samsung has used its new Exynos 8890 processor in the

Galaxy S7, and RAM is up from 3GB to 4GB as well. It's remarkably fast, with stutter-free transitions between apps and fast load times. Swiping through menus is fluid and immediate, and games run smoothly without lag.

**SMARTPHONES** 

**FEATURES** 

5.1in screen

24-bit/192kHz

Regular users will easily see out a day on the 3000mAh battery (though it's still not removable) and we think most power users could too. It comes a very close second to the HTC 10 in our battery tests.

This phone's all about consolidating refinements rather than headline-grabbing changes. And those small tweaks all come together to make a pretty impressive package. While the S7 might look great on paper, it's even better in use - a real all-rounder that tops everything we've seen from Samsung yet.



**VERDICT** Samsung just made its best even better – the Galaxy S7 is a top Android phone, well-worth an audition



## LGG5 with Hi-Fi Plus DAC £500

With all three contenders bagging five stars, the winner here has to be *really* good. Take a bow please, LG

f there's one thing this test proves, it's that it's already a great year for Android. Whether you're a long-time Android fan on the lookout for a new phone or an Apple user interested in making the jump, pick any one of these handsets and you won't be disappointed.

Samsung has done a sterling job with the S7, with improvements over the S6 that make it easily the best handset we've ever seen from the brand.

"A screen that bests the competition for detail and colour balance, and a super-wide angle camera that's lots of fun to play with to boot"

Standout features are its design and camera. We love that it looks as good as it does while being sturdy enough to be waterproof, and its camera is certainly the most consistent of the three on test, meaning you don't have to try hard for good images.

Music and video do fall just short of the best though. While the screen is sharp and super-bright, the colour palette would benefit from some refining and, though audio is as good as we've heard on a Samsung handset, there's room for better rhythmic drive and a touch more punch.

#### The audio battle

By contrast, HTC goes big on audio once again this year, showing a real concentration on both the external speakers and the way audio sounds over headphones. The speakers are easily the best of the bunch here, and the HTC 10's headphone sound would top the pile too if it weren't for the LG's modular capabilities. It offers a clean, full-bodied and enthusiastic performance that's both organised and insightful.

Its screen looks good too, if a touch on the warm side, making for nicely vibrant colours but whites that could be purer and skintones that look a little overdone. The 10 does have our favourite third-party take on Android yet though, with a UI designed with Google itself to be a clean, clutter-free experience – something more manufacturers should take note of.

Finally the LG G5, with its modular design, certainly has plenty of talking points - but ours sit largely around its audio. Add in the phone's Hi-Fi Plus DAC module and it's the best-sounding phone from any manufacturer to date. Take it out, however, and it's the weakest on test.

#### **Completing the picture**

It's well worth the upgrade though, because it makes this phone a real all-rounder, with a screen that bests the competition for detail and colour balance, and a super-wide angle camera that's lots of fun to play with to boot.

It gets five stars along with the rest of the phones on test, but with such a high

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standard set across the board here, what is it that finally separates our winner from its rivals? While the HTC 10 comes close, for us, it has to be the LG G5 purely because of its unbeatable audio and video performance.

Yes, the B&O-tuned Hi-Fi Plus DAC module comes at an extra cost (yet to be confirmed, but no doubt considerable) but, with a lower SIM-free cost for the phone than the Samsung or HTC, it goes some way to make up for it, especially as there are sure to be competitively priced bundles available.

Ultimately, if you care about getting the best from your movies and music on your smartphone, the LG G5 with Hi-Fi Plus will deliver. Wrapped in a package that does plenty more besides, it's the phone we've been waiting for.



	HTC 10	LG G5 (with Hi-Fi Plus)	Samsung Galaxy S7
Screen size	5.2in	5.3in	5.lin
Processor/RAM	Qualcomm Snapdragon 820, 4GB	Qualcomm Snapdragon 820, 4GB	Exynos 8890, 4GB
Resolution/ppi	2560 x 1440, 565ppi	2560 x 1440, 554ppi	2560 x 1440, 577ppi
Cameras	12MP/5MP	16MP & 8MP/5MP	12MP/5MP
Battery	3000mAh	2800mAh	3000mAh
Dimensions	146 x 72 x 9mm	149 x 74 x 8mm	142 x 70 x 8mm
Weight	161g	159g	152g
Storage	32/64GB	32GB	32/64GB
MicroSD	Yes	Yes	Yes
Waterproof	No	No	No
Audio resolution	24-bit/192kHz	32-bit/384kHz	24-bit/192kHz
AptX Bluetooth	No	Yes	No
Fingerprint sensor	Yes	Yes	Yes



## IN-EAR HEADPHONES Sennheiser Momentum M2 IEi ★★★★ £90

These excellent in-ears are comfortably (in every sense) worthy of the respected Momentum range – expressive, clear and detailed, they're our 2015 in-ears Product of the Year.

#### **SYSTEM BUILDER**



#### ON-EAR HEADPHONES AKG Y50

\*\*\*\*£50

Not for nothing are these our current Product of the Year in the on-ear headphone category. They're dynamic, punchy, rhythmic, detailed and stylish. Comfy, too.



#### WIRELESS SPEAKER

Geneva AeroSphère Large

\*\*\*\* £650

Another 2015 Award winner. Not only does this striking cordless speaker have an irresistably huggable design, it also brings heaps of scale, authority and expression.



#### STREAMING SERVICE

Tidal

\* \* \* \* \* £20/month

No-one streams hi-res music yet, but Tidal bests its rivals with CD-quality lossless streaming, HD video, an extensive catalogue and a wonderfully intuitive interface.

# Triple

One established champ plus two outstanding challengers equals three of a very fine kind. There are no weak hands in this contest – let's deal...



n the world of stereo speakers, £500 is the sweet spot. It's a step above the budget offerings, and as such becomes the common jumping-on point for discerning listeners making a start on their hi-fi journey.

It's also a few steps below the serious high-end models. That means you avoid a massive price tag, but you may also benefit from some advanced technology trickled down to junior models.

That's what happened with the Bowers & Wilkins 685 S2, which took design cues and components from its more luxurious seniors, and went on to win two What Hi-Fi? Awards.

#### **Questions and answers**

But are they still as good? Or are they ripe for replacement? Here to help us find out are two fresh challengers: the Dynaudio Emit M10 and the Quad S-1, both offering a different bag of tricks for the same money as the reigning champ. Let's see how they get on.



#### **SPEAKER SPECIFICS**



**B&W** says the dimples on the bass port create a smoother air flow for better sound



The Magnesium Silicate Polymer driver, says Dynaudio, optimises rigidity and damping



Uniquely in this trio,  $\mathbf{Quad}$  uses a ribbon design for the S-1's  $12 \times 45$ mm tweeter



Listen to our favourite tracks every month!

## THE GREAT DEFENDERS

## B&W 685 S2 £500

FOR Big, powerful sound

**AGAINST** The best rivals offer greater detail and subtlety



It's tough being king. It's only a matter of time before somebody makes a move for the crown, and then you have to defend your honour. So it was for the original Bowers & Wilkins 685s which blew our socks off nearly 10 years ago, firmly establishing themselves as venerable favourites before eventually being bested.

Then came the 685 S2s, and B&W once again found itself at the top of its price range. These speakers have since won two Awards, including the coveted Product of the Year. And yet they never get to sit still before they are hauled into a testing room for another fight.

It will take a lot to beat them, for they are made of sterner stuff than their predecessors and incorporate technology taken from B&W's high-end speakers.

#### **Premium technology**

The headline act is the decoupled reinforced dome tweeter. The 25mm aluminium dome in the 685 S2 is reinforced with a thicker metal ring to make the tweeter strong and better damped - a technology handed down from B&W's premium CM10 floorstanding speakers - and ensures a higher degree of clarity and accuracy in the upper ranges.

The tweeter assembly is suspended in a ring of soft gel, which helps to isolate it from any cabinet vibrations. B&W has covered up the fragile dome with a protective grille mesh, which helps with dispersion too.

Elsewhere, the 16.5cm Kevlar mid/bass driver remains mostly unchanged. The bullet-shaped phase plug of the previous generation is replaced with a mushroom-shaped 'dust cap' derived from the high-end B&W PM1 speakers, which further damps the driver down at certain frequencies.

#### **Back to finishing school?**

While the speakers are solidly built, we can't help but wish for a more premiumquality finish. We noted in 2014 that the 685 S2s look and feel rather plain, especially considering the price, and our feelings haven't changed. It doesn't help the B&W's case that the Quad S-1 and Dynaudio Emit M10 both have much nicer finishes.





Two sets of recessed speaker terminals mean you can biwire the 685 S2s

But enough of that - how do they sound? In a word: good. From the start, the B&Ws burst to life with a powerful, clear and agile sound.

These are talented and enjoyable speakers, and a definite step up from their predecessors. The sense of scale is massive, especially coming from relatively compact standmounters.

#### A dynamic duo

The soundstage is wide and deep, enveloping you in a richly detailed, dynamic performance, whether you're playing Aerosmith, Lorde or a Hans Zimmer soundtrack.

The bass is pleasingly deep and powerful. Play Led Zeppelin's *Whole Lotta Love* and the bass notes are so rich that it almost feels like there's a subwoofer in the room.

All the technology tweaks have paid off as well, as the 685 S2s sound clean and precise. They can also go extremely loud with little obvious distortion - we rarely have this much fun listening to music so loudly in our listening rooms. Get them into your home and we think you'll agree.

But there is the competition to consider, and while the B&Ws are

**KEY FEATURES** 



Impedance: 8 ohms



Weight: 6.8kg



Dimensions (hwd): 35 x 19 x 32cm

talented in their own right, they face tough competition from their latest batch of rivals. Take the Quad S-1s, for instance. While they certainly cannot offer the

B&Ws' scale or dynamics, they can counter with greater subtlety and transparency from the midrange through to the higher reaches of treble. And the Dynaudio Emit M10s match the B&Ws in energy (if not in scale), while superior timing, cohesion and detail make for a more engaging performance.

The 685 S2s are entertaining, and their power, vigorous dynamics and detail retrieval impress. But they are no longer at the top and so, with due deference, we have to take away that fifth star.



**VERDICT** Former champs still impress – they've just been overtaken by newer rivals

# MISCHIEF, MELANCHOLY OR MENACE

# Dynaudio Emit M10 £500

FOR Versatile, detailed, subtle, entertaining sound **AGAINST** Nothing at this price



There was a time when Dynaudio ruled these parts. It was unstoppable, armed with a great formula for lovely listening. That was years ago, however, and while the company has consistently put out fine products, we were accustomed to more. Well, it looks like it is time for a comeback, because that's what you get with the Dynaudio Emit M10: more.

You get a bit of everything here. Versatility, transparency, energy, precision, scale and volume: you name it and the Emit 10s deliver in spades.

#### Transparency and detail

We begin with the impressive transparency and bags of detail, which help to provide context into the performance's environment. In a hall, on a stage, in a studio, with or without air conditioning (in the case of The Sopranos soundtrack) - it's quite apparent what sort of setting and acoustic you're listening to, with production techniques laid bare.

It's a lively listen. The Emit 10s have a masterful grasp of rhythm, and what you get is more precise than anything offered by the B&W 685 S2s or Quad S-1s. Give them something challenging and they just lap it up. Major Lazer's Pon De Floor is a messy obstacle course for most speakers at this price, littered as it is with varying rhythms and dynamic shifts. But these Dynaudios breeze through it with agility and panache.

#### Model of inclusivity

They're versatile too, capable of slowing right down without missing a beat, then ramping things up again with apparently effortless enthusiasm and verve. We switch between Dusty Springfield, Nina Simone, Carl Orff's Carmina Burana and Prince. Whether you want mischief, melancholy or menace, the Emit 10s demonstrate an impressive ability to mould themselves for any occasion.

These speakers are not afraid to express themselves either. The detail and precision help with their enunciation, but you also get strong, free-flowing dynamics. If it's a hardhitting, passionate sound you're after, then you've got it. If you want volume, you've got that too. You don't necessarily





Give them some space and the M10s will make you question whether you paid only £500

> need it, though - the sense of energy is always there, even at lower volumes.

The Emit 10s have a compact design. At 29cm tall they are barely bigger than the Quad S-1s, and yet they have the scale, power and dynamics to rival the larger B&W 685 S2s.

It's not just scale, but organisation too. Not only do all the instruments get plenty of space, they are also impeccably arranged in a way that gives the performance a convincing sense of depth. And despite the wide and deep soundstage, everything works together

in a cohesive unit. Second nature

All of this comes naturally, like a maths prodigy bashing out trigonometry: we're not sure how Dynaudio has done it, but we are astonished at the ease with which spectacular results have been achieved here.

Is there a catch to all of this? Not really. In terms of sheer scale we think the bigger B&W 685 S2s still have the advantage, but that is of little concern when the Dynaudios are really not that far behind and ahead in every other sonic department.

It's not just the sound, either. We really like the look and build quality of the Emit 10s, which make the B&Ws look a little cheaply made. They are also easy to set up (just give them some space) and unfussy with partnering equipment. We're struggling to say anything negative.

#### All-round talent

It may have taken a few years, but it looks as if Dynaudio is back in great shape. Put it all together and you have some tremendously talented all-rounders, capable of giving out layered, intricate, versatile sound that we cannot believe costs only £500. Whether you're starting out in hi-fi or looking to upgrade, the Dynaudio Emit 10s should be on your list.



return to form for Dynaudio







Weight: 5.6kg



**Dimensions (hwd):** 29 x 17 x 24cm

# SMALL IN STATURE, BIG ON ABILITY

# Quad S-1 £500

**FOR** Detailed, precise sound with superb midrange; design

**AGAINST** Not the most authoritative sound



When we think of Quad speakers, our thoughts immediately turn to the EL-2812 - massive electrostatic speakers costing upwards of £6000.

From now on, we'll have something else to salivate over, because the company has come up with a fabulous pair of mid-range standmounters: the Quad S-1. They are the smallest of Quad's new five-strong S-series, which comprises these and the S-2 standmounters, two floorstanders and one centre channel. If the S-1s are anything to go by, we can't wait to meet the rest of the family.

#### **Instant attraction**

It's love at first sight. The exterior is exquisite, with quality woodwork that brings to mind a fine dining table. Our review sample is black, but the S-series also comes in a lush mahogany. Quad says it is also planning glossy piano black/white finishes.

Whichever finish you pick, you get rounded front and rear edges top and bottom (the side edges remain straight). It's an unusual move, one that helps the S-1 stand out in a line-up. Quad claims no acoustic benefits - it just looks nice, and there's nothing wrong with that.

No, the acoustic tinkering comes from the cabinet's construction, which sees MDF sandwiched with high-density particleboard. This is supposed to reduce panel resonance and colouration.

Elsewhere, the S-1s feature a bespoke 12 x 45mm ribbon tweeter and a 10cm Kevlar cone for midrange and bass. The floorstanders in the S-series feature rear passive radiators for bass. The S-1 makes do with a small reflex port at the back.

Quad recommends a minimum distance of 20cm from rear walls, and 30cm from side walls, toed in towards the listening position. Don't be tempted to stick them right out in the open, especially in a large room. The S-1s are only little, and they rely on the rear wall for some reinforcement.

#### Voice boxes

When it comes to thinking about how these speakers sound, the standout element is the vocals. The way the S-1s handle voices is, in a word, lovely. Two words? Seriously lovely. Whether you're listening to Prince, Sufjan Stevens or Devendra Banhart, the performance has the same intimate quality that makes you want to dig out all your songs.

You get heaps of subtle detail and remarkable clarity; a treble that is insightful and agile; a midrange clear, direct and smooth. The integration between the drive units is terrific, never giving the impression that they are not working in tandem.

#### A fine balancing act

Tonal balance is good, with no part of the frequency range sticking out. These are rhythmically precise, well organised speakers and their sound is spread wide, with a good sense of space and placement.

But compared with larger rivals, the S-1s struggle to convey a sense of authority. Of course, for their size, we wouldn't expect them to have the scale or dynamics of the B&W 685 S2s. Put on Massive Attack's *Angel* and while the Quads possess a decent amount of weight, they don't quite convey the ramping sense of menace in the song's opening section. Then again, the B&Ws don't have the Quads' way with vocals, or their finesse either.



A word on kit matching. The Quad S-1s have a sensitivity of 84dB, which is a little lower than average and makes this a relatively insensitive design. You may need to work your amp a little harder (or have a powerful one).

We have the good fortune to listen to a lot of products, and the best ones are those that allow you to lay aside your critical faculties and leave you with the music. This happens a lot with the S-1s.

These speakers are not about to muster much authority, but we don't think that's a big deal when you're already listening with rapt attention. If you have a smaller room and you like your performances intimate, these are an absolute treat.





400

Weight: 5.2kg



Dimensions (hwd): 29 x 16 x 24cm



these little Quads really sing



# Dynaudio Emit M10 £500

Never mind their rivals here, these Dynaudios could take on much pricier rivals and still prevail

e never know what to expect in a group test of speakers, but this one was full of surprises. We certainly couldn't have foreseen the fate of the Bowers & Wilkins 685 S2s: not only did they not win the test, they lost a star as well.

For now, they remain entirely commendable: they offer a big, powerful sound that has no problem engaging and entertaining you.

#### **Differing strengths**

It takes a lot to knock a double Award-winner off its perch and into four-star territory, but that's exactly what's happened with these two new challengers. They have very different priorities, however.

The Quad S-1s excel in treble and midrange, and their handling of vocals is sublime. There is an intimacy here that's hard to beat. They're not the most flexible



"It takes a lot to knock a double Award-winner off its perch and into four-star territory, but that's exactly what's happened in the shape of these two new challengers"

speakers, though; their compact size and small mid/bass drivers restrict low-end reach. But in smaller rooms they shine.

That's where the Dynaudio Emit M10s come in. They are not quite as sweet with vocals, but they're as good (if not better) at rhythmic precision, and that's balanced with power, dynamics,

flexibility and energy. Layers of music are stripped back to their emotional core, and the experience is hard to resist.

These are terrific all-rounders, and offer the sort of performance that we might expect from something much higher up the food chain. That they are available for £500 is little short of astounding.



### HOW THEY MEASURE UP

	B&W 685 \$2	WINNER	Dynaudio Emit M10	Quad S-1
Weight	6.8kg		5.6kg	5.2kg
Sensitivity	87dB		86dB	84dB
Impedance	8 ohms		6 ohms	8 ohms
Dimensions (hwd)	35 x 19 x 32cm		29 x 17 x 24cm	29 x 16 x 24cm
Finishes	Black ash, white		Black satin, white satin	Black, mahogany
Biwirable	Yes		No	Yes



Audio-Technica AT-HA5050H | Headphone amplifier | £4500

# "...the enduring appeal of a VU meter..."

**FOR** Wonderful presentation; fluid dynamics; excellent build

**AGAINST** No optical inputs



e've been intrigued by this Audio-Technica unit ever since we first laid eyes on it at the Munich Hi-Fi show last year. Even among the all the glamorous high-end kit, this compact box stood out.

The AT-HA5050H looked out of its time, something that had escaped from some aged audiophile's hidden stash of treasures rather than a product readily available on the shelves now. Look at it: all 1970's retro styling, twin VU meters and eight headphone outputs. That's right, eight. Why would anyone ever need that many?

#### A question of taste

While it may not be obvious from appearances, this is a digital-to-analogue converter/headphone amp as distinct from the current fashion of delivering a DAC with a headphone output.

The difference? The Audio-Technica has analogue line-level inputs in both single-ended and balanced flavours. The company has focused solely on headphone users here - you can't connect this unit to an external amp, as there are no line-level outputs.

It turns out Audio-Technica doesn't envisage all the 6.3mm jack sockets being used at once, either. This isn't some sort of comparison tool designed to drive all those headphones in one go – users are limited to using just two. The recommended impedance values are 16-600ohms, which should be enough for most.

Each pair of headphones can be connected to any one of four outputs, each having a different output impedance. Think of it as a way of fine-tuning the presentation to suit your tastes - the higher the output impedance, the mellower and more bass-heavy the sound.

It appears to be an odd way of doing things, but it works. We find ourselves alternating between different settings on a regular basis, depending on the quality and type of source material. Aggressive, less capable sources tend to make us move towards one of the outputs with higher output impedance – usually 82ohms – while high-quality signal feeds have us settling on the 33ohm option.

Going to the O.10hm option brings greater detail and attack, but loses too much in the way of natural warmth and bass weight for our tastes. As always though, such things depend much on the headphones connected and personal taste. It's just fun to play around and find the output setting that works for you.

The AT-HA5050H's build quality is excellent. It feels immensely solid and is superbly finished. We're not big fans of the laminated rosewood strip on the lower edge of the front panel, but there's no denying the crisp, luxurious feel of all the controls. We love the smooth, damped movement of the volume dial in particular.

This has got to be the heaviest unit of this type we've come across. It weighs in at 11kg, which is about what a typical grand's-worth of amp comes in at. It's large for a desktop unit too, with both a width and depth of 33cm.

#### **Minimal interference**

Take the lid off and you'll find the insides packed with quality components. It uses a hybrid audio circuit with a pair of E88CC valves in the preamp section, driving Toshiba bipolar power transistors in the output stage. We're impressed by the generously specified power supply it looks easily beefy enough to power a full-size power amp.

#### **KEY FEATURES**



Valve/transistor hybrid circuit

32-bit/384kHz PCM

DSD

DSD128 compatible

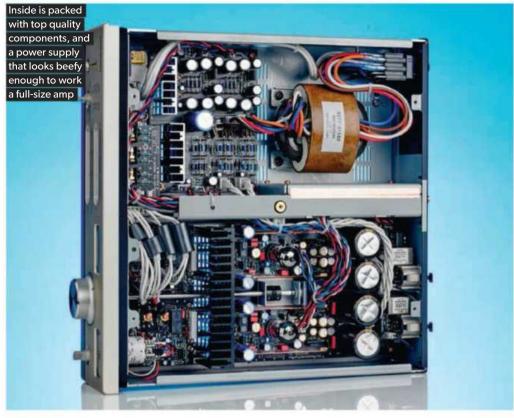




Around the back there are USB type B and coax digital inputs. There's no optical option here, though, which is a shame



#### **TEMPTATION**





The DAC section is enclosed in a fully shielded case to minimise interference and reduce noise levels. Cleverly, Audio-Technica also uses this case to protect the audio circuitry from any interference from the custom R-core mains transformer.

Around the back you'll find USB type B and coaxial digital inputs. There's no optical option here, which is a shame. The USB input can be switched between asynchronous and adaptive modes, which helps with compatibility. We opt for the asynchronous option for most of the test on performance grounds.

#### Not attention seeking

The 5050 can cope with pretty much any signal you care to throw at it. It will cope with 32-bit/384kHz PCM files (if you can find any worth listening to), right through to double-speed DSD (ditto). One thing to note is that it will handle DSD only with the USB input switched to asynchronous mode. In adaptive mode, the maximum sampling rate is held at 192kHz with no option of DSD replay.

Once up and running this is a wonderfully entertaining performer, though it takes a while to appreciate its brilliant refinement and total lack of hard edges. The AT-HA5050H isn't the kind of product that grabs your attention from the off - the presentation is far too understated for that.

The detail is all there, but it isn't thrown at the listener in a bid to impress.

No, this unit prefers to persuade the listener gently with a superbly layered sound that lacks little in terms of insight or finesse.

We listen to Beethoven's *Moonlight Sonata* and are entranced. The 5050 sounds wonderfully organic, with dynamics moving fluidly from quiet to loud in clean sweeps. The lead edges of notes are defined with precision and are as crisp as you like, but never sound hard-edged or forced. The 5050 doesn't have to highlight its high level of resolution in that way.

#### **Organic and full-bodied**

We're impressed by the tonality too. It's just a touch on the sweet side, and possessed of body and natural warmth, but still balanced enough to convince. Such a presentation works wonderfully with less-than perfect recordings, rounding off the rough edges just enough to keep things listenable.

But don't get the wrong idea. This unit isn't some big softy that makes everything sound nice, as a spin of Kanye West's *Yeezus* shows. Here, there's plenty of punch and attack. Rhythmically it isn't quite as crisp as Chord's Hugo TT, but the Audio-Technica can still convey the momentum of the music well.

More than that, it captures the anger and aggression of the album superbly, rendering West's vocal with all the grit it deserves. Bass frequencies are lovely



- rich and articulate - while the highs have sparkle, bite and refinement in equal measure.

This box is equally adept through its line-level inputs. Normally such inputs tend to be an afterthought on what is mainly a digital product, but not here. The line stage is a good one, and given a talented source fully capable of delivering a performance every bit as engaging as that of the built-in DAC.

If you're a headphone obsessive, we can't think of a better high-end alternative. Chord's Hugo TT offers a more dramatic sound with greater impact, but the Audio-Technica's organic, full-bodied approach is just as convincing and, thanks to its unfussy nature, is arguably a better long-term choice. We love the retro feel of this product and the aura of quality it oozes. And let's not forget the enduring appeal of a VU meter. Tempted? We are indeed.



**VERDICT** The HA5050H is expensive, but it produces a spellbinding sound that's sure to hold your affection for many years



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Meridian 808V6 Signature Reference | CD player | £11,000

# Civilising...

**FOR** Sonic refinement; insight; wide-ranging dynamics

**AGAINST** Cultured sonic approach may not suit all tastes



t looks as if the days of the dedicated CD player are numbered. Most new disc-spinners tend to have digital inputs, allowing other sources access to their digital-to-analogue conversion circuitry. All very logical considering a CD player already has a DAC built in and it's likely to be a decent one if performance is a priority.

Meridian's 808V6 takes things a stage further, adding the functionality of a preamplifier into the mix. Use an 808V6 as source and all you need is a power amp and speakers to complete the system. You could minimise the box count even further by opting for active speakers instead. Meridian has concentrated on such speakers for years, and the approach makes sense - you have a minimum of boxes, less wiring mess and hopefully a great sound.

The 808 was first introduced way back in 2001 but, as the 'V6' suggests, the engineers haven't been sitting on their hands all these years. This latest version boasts improved DSP, DSD playback, an updated linear power supply and a new master clock. It's a modular design, which makes upgrading easier as and when technical advances happen.

#### Keeping a lid on it

It's undeniably an impressive beast - glossy, bulky and nicely finished - with an aura of understated luxury. The effect is tarnished a little by the small, cheap-feeling buttons under the front flap - they have no place on a product of this price - but the main controls along the lower edge of the fascia feel better.

The 808's transport is a multi-speed CD-ROM drive. It normally operates at

standard CD speed, but is capable of faster, multiple reads to ensure accurate recovery of data from, say, a scratched disc. It sounds clever, but the transport's rickety tray doesn't inspire confidence. Fortunately, this has little to do with how well the drive reads data from the disc.

#### A distinguished panel

Most people's interaction with the 808 will be through Meridian's MSR+ tabletop remote control. This is the latest generation of a design that the company has used for decades, and for the most part it works well. It has a generous operating range and big, well-spaced buttons, though using it is a two-handed affair. Individual keys can be swapped out easily, which is a nice touch.

The player's connectivity is good. It has the usual trio of digital input options - USB, optical and coaxial - alongside six single-ended analogue connections. Optical is limited to 24-bit/96kHz signals, but both USB and coax accept 24-bit/192kHz sampling rates and DSD64. There's also a balanced XLR output alongside a single-ended option.

The big news here, though, is the V6's ability to decode MQA (Master Quality Authenticated) files, a Meridian-developed compression format that aims to deliver accurate sound while packaging hi-res music files into about the same amount of space as conventional CD-spec

(16-bit/44.1kHz) files. It also puts an emphasis on timing information, something Meridian says traditional digital techniques don't. MQA-encoded software isn't exactly in plentiful supply, but there are samples available online. Over time availability will increase. Warner Bros., for example, has just announced an MQA tie-in.

The disc tray is on the flimsy side, but the multi-speed CD-ROM drive inspires confidence

Tone, phase and balance controls are in the menus. The tone controls are subtle enough to be useful if a recording is poorly balanced. You can also change the phase of the player's output, which can lead to improvements in sound quality depending on the rest of the system.

#### Software in sync

MQA music files seem a good place to start, so we download Mozart's *Violin Concerto in D Minor* and Britten's *Simple Symphony Op.4* onto our usual MacBook Air (loaded with Pure Music software) and start listening. We hear music, but oddly, the 808V6 doesn't indicate that the file is in MQA. It turns out that Pure Music currently doesn't pass through the MQA information unimpeded, so we load our laptop with Audirvana software and things work properly.

And the 808V6 is a fine-sounding machine. Our initial impression is one of a refined, unflappable performer that delivers lots of insight. That impression sticks throughout the test period.



24-bit/192kHz and DSD64





"The big news here is MQA, a Meridian-developed compression format that aims to deliver accurate sound while packaging hi-res music files into about the same space as CD-spec files"



It's impossible to judge the absolute merits of MQA without comparing the sound to the same recording in other codecs, but what we can say is that both these recordings sound lovely. The Meridian's presentation is bold, dynamic and has a wonderful sense of fluidity. Tonality is rich though convincing, as is the sense of composure. Stereo imaging is expansive, stable and precise.

Switching to the CD drive brings no surprises, and that's a good thing. We listen to Stravinsky's *The Rite Of Spring* and the Meridian sounds right at home. It renders a large-scale sound of considerable authority. There's a real sense of menace to the piece, with the 808 conveying strong dynamic contrasts and plenty of low-end weight.

#### Always in control

We're struck by the sense of organisation here, and the player's ability to keep things under control even when the music becomes complex. This ability to sound unflustered is deeply impressive.

Tonally, things are on the smooth side of neutral, the player seeming to round off bite in exchange for its exceptional refinement. The result is a machine that you could listen to for hours on end without feeling fatigued.

You won't want for connections – digital or analogue. USB and coax inputs accept 24-bit/192kHz files

The downside to such an approach is a mild sense of restraint - the feeling that the player is either unable or unwilling to let this rather savage piece of music have free rein. The Meridian plays things a little safe, which may suit many listeners but leaves us wanting just a touch more.

While this character is more of an issue with harder-hitting rock and hip-hop tracks, it doesn't stop us enjoying a range of albums from Kanye West's *Yeezus* to the Rolling Stones' *Let It Bleed*. There remains plenty to admire here from the impressive level of detail to the rich midrange that gives vocals presence.

That good news continues through to the analogue line-level inputs. Usually, such inputs rarely sound good on a predominantly digital product, but we're pleased to find that isn't the case here. The player's presentation remains cultured and insightful.

We're equally impressed with the 808V6's variable output. With products such as this we tend to recommend a dedicated preamp despite the doubling up of volume-handling ability. Not here. The 808 has a fine preamplifier section.

While this Meridian's civilising approach to music replay may not be totally to our tastes, it remains a really strong option. The 808V6 is insightful, refined and well equipped. If you're after a high-end sound without all the fuss of lots of boxes and cables, this is a terrific place to start.



**VERDICT** If you crave a detailed but refined digital source, give this well-equipped Meridian a listen

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with its KD-55XD9305 4K HDR TV, Tannoy's Eclipse Threes are brilliant budget floorstanders and Samsung manages to best its previous efforts with the marvellous Galaxy S7.

Kobina Monney, Buyer's Guide Editor



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Dolby Atmos ready. Includes 11.2ch expandability, super-high quality ESS DACs and Advanced HDMI Zone Switching. Also Available: YAMAHA CX-A5100 & MX-A5000

#### DENON • HEOS HOME CINEMA • SOUNDBAR / SUB

Latest addition to Denon's HEOS range features Dolby Digital and DTS decoders, digital, USB and AUX inputs. TV sound can be distributed throughout HEOS eco system and controlled with the HEOS app or your TVs remote control



#### CANTON • DM 55 • SOUNDBASE

The Canton DM 55 sets a new standard for TV sound. Intended to be positioned under a TVs pedestal stand, the DM 55 creates a convincing, room filling sound.



#### YAMAHA • YSP-1600 • DIGITAL SOUND PROJECTOR

Stylishly slim Soundbar featuring Digital Sound Projector technology for real 5.1ch surround sound. MusicCast for enjoying a variety of music sources anywhere in your house. HDCP2.2 compliant HDMI supports 4K Ultra HD input.



#### Q ACOUSTICS • MEDIA 4 • SOUNDBAR

The new Q Acoustics Media 4 is a high performance Soundbar designed to deliver high fidelity reproduction of music, and high quality audio from a TV or set top box,





This plug-and-play unit incorporates 9 integrated amplified speakers. Simply connect it to your TV with the supplied optical cable to deliver an epic home cinema sound in your own living room. PLAYBAR can also expand your existing Sonos system.

#### YAMAHA • YSP-5600 • DIGITAL SOUND PROJECTOR

3D sound reproduction equivalent to 7.1.2 channels realised using Yamaha's unique Digital Sound Projector technology to let you enjoy movies and music with thrilling 3D surround sound. Includes Yamaha's MusicCast functionality.





#### SPEAKER PACKAGE

This award-winning 5.1 package from Monitor Audio includes a pair of Bronze 5 floorstanding speakers, a Bronze centre speaker, a pair of Bronze FX surround speakers and a Bronze W10 active subwoofer

Available in a choice of white ash, black oak, walnut or rosemah premium quality vinyl veneer finishes



#### B&W • MT-50 • SPEAKER PACKAGE

This system swaps the PV1D for the compact but punchy ASW608 Subwoofer. Available in a matt black or white



#### KEF • R100 5.1 • SPEAKER PACKAGE

Comprises four R100 speakers, an R200C centre speaker and R400B active subwoofer. Great for both home cinema and music.



#### ARCAM • SOLO MOVIE • HOME CINEMA SYSTEM

Featuring a BD/DVD/SACD/CD drive and 250W of breathtaking Class G amplification in a stylish, low-resonance enclosure, the Solo movie provides high-quality room-filling sound. Four HDMI, coax, optical, phono and 3.5mm line inputs allow for flexible system building without being over complex



#### SONY • VPL-VW320ES • 4K SXRD PROJECTOR

A fantastic option for movie lovers who want an incredible cinematic experience at home, far beyond the reach of TV.





#### SAMSUNG

#### UE55KS9000 • 55" CURVED 4K UHD TV

Optimum curved screen with auto depth enhancer delivering a deeper, wider, clearer viewing experience. The curved screen surrounds you while Samsung's Auto Depth Enhancer technology creates a greater depth of image. The curved screen also offers a wider field of view bringing the corners closer to you providing a clearer view with ultimate levels of detail. Optimal screen curvature means the curve radius is customised by screen size allowing you to lose yourself completely in the immersive viewing experience.

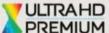
Also Available



FREE 5 YEAR WARRANTY







#### OLED55E6V • 55" 4K UHD OLED TV

OLED's next generation pixel construction allows for unique screen architecture which is so light and thin it can be bonded to a transparent piece of glass. This stunning television produces an incredible picture with infinite contrast that is complimented by an innovative sound bar stand that produces superb audio. A masterful television from LG's award winning OLED TV range.

Also Available DOLBY VISION WARRANTY

Ask in-store for the latest promotion



#### SONY

NEW

#### KD-75XD9405 • 75" 4K UHD ANDROID TV

The Sony Bravia XD94 is a 4K HDR TV with spectacular image quality and a beautiful design. It also comes with the Android TV platform, that includes all your favourite apps and online

Experience incredible contrast, real-life colours and exceptional 4K detail with the new 4K High Dynamic Range technology.

Whether you're watching a movie or a regular broadcast, 4K HDR brings you close to reality, thanks to Sony's unique technology. Ask in-store for the latest promotion

FREE 5 YEAR WARRANTY





SAMSUNG • UE55KS7000 • 55" 4K UHD TV

Also Available



49 60 FREE 5 YEAR WARRANTY



PANASONIC • TX-58DX902 • 58" 4K UHD TV

Also Available



65 FREE 5 YEAR WARRANTY



SONY • KD-55XD8599 • 55" 4K UHD ANDROID TV





Also Available 65 75 85 FREE 5 YEAR WARRANTY



#### ARCAM • FMJ UDP411 • 3D BLU-RAY PLAYER

With more than ten years of digital video experience, not to mention global recognition of its efforts, Arcam is proud to announce the arrival of its newest disc player, the UDP411.

Also Available: PIONEER BDP-LX58



#### PANASONIC • DMP-UB900 • 4K UHD BLU-RAY PLAYER

Premium player that features playback of Ultra HD 4K Blu-ray discs, HDR playback and 4K content from Netflix and other streaming providers

Also Available: PANASONIC DMP-BDT380



#### SAMSUNG • UBD-K8500 • 4K UHD BLU-RAY PLAYER

Delivers stunning UHD 4K resolution while its sleek, curved design matches seamlessly with any Samsung Curved SUHD TV

Also Available: SAMSUNG BD-J7500

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**AMPLIFIERS** 

THE BEATING HEART OF YOUR HI-FI SYSTEM

AWARD WINNER

PRODUCT OF THE YEAR

AWARD WINNER

AWARD WINNER

#### Marantz PM6005 £300

May 2014 \*\*\*\*

The PM6005 is a multiple Award-winner for good reason. Nicely made, well featured and with refinement and insight few rivals can match.

Power 45W Inputs 5 line-in, MM Outputs 2 x speaker, headphone



#### Onkyo A-9010 £200

Best stereo amplifier under £300, Awards 2015 ★★★★

Our favourite budget amplifier, this is arguably the most entertaining affordable amp around. It has agility and a wicked sense of rhythm. Power 44W Inputs 5 line-in, MM Outputs speaker, headphone



#### Arcam FMJ A19 £600

May 2016 ★★★★

Arcam's entry-level amplifier is a terrific combination of sensible features, fine build and entertaining sound.

Power 50W Inputs 6 line-in, MM Outputs Speaker, headphone, preamp



#### Cambridge Audio CXA60 £500

Best stereo amplifier £300-£700, Awards 2015 ★★★★

This is a lively performer with expressive dynamics and a surefooted sense of rhythm. Build quality is impressive.

Power 60W Inputs 4 line-in Outputs Preamp, 2 x speaker, headphone



#### Naim Nait 5si £925

January 2015 ★★★★

Naim's starter amp is an exceptionally polished performer which combines drama with the insight and subtlety to match the very best.

Power 60W Inputs 3 line-in Outputs speaker, headphone



#### Rega Elex-R £900

Best stereo amplifier £700-£1000, Awards 2015 ★★★★

Arguably the best-value amp Rega makes, with insight and the precise handling of rhythms that's hard to better even at double the price.

Power 72W Inputs 4 line-in, MM Outputs Speaker, preamp



#### Naim Supernait 2 £2750

December 2013 ★★★★

A terrific integrated amplifier. It's punchy, with a low-frequency performance that brims with authority. Dynamics are strong too.

Power 80W Inputs 5 line-in Outputs Speaker, headphone, preamp



#### Rega Elicit-R £1600

Best stereo amplifier £1000+, Awards 2015 ★★★★

Rega's top integrated builds on the qualities of its smaller brother, the Elex-R. We haven't heard a more precise amplifier for the money.

Power 105W Inputs 5 line-in, MM Outputs preamp, speaker



#### Roksan Caspian M2 £1900

October 2013 \*\*\*\*

A supremely rounded product with solid build, classy aesthetics and a brilliant all-round sound that works well with all types of music.

Power 85W Inputs 5 line-in Outputs Speaker, preamp



#### Roksan K3£1250

February 2015 ★★★★

This lively effort from Roksan delivers a sound that's big, expressive and agile. It even performs capably on a Bluetooth connection.

Power 150W Inputs 5 line, MM, B'tooth Outputs Spkr, preamp, h'phone



#### **Burmester 032 £12,380**

lune 2015 \*\*\*\*

An expensive product but feels it too. Plug the 032 into a system and it sounds lovely: top-class levels of resolution, authority and dynamics.

Power 105W Inputs 5 line-in, MM, MC Outputs Speaker, 'phone, preamp



#### Dan D'Agostino Momentum integrated £42,000

November 2015 ★★★★★

Get past the cost of the Dan D'Agostino Integrated and you'll find a startlingly capable product – one of the finest amplifiers on the planet. **Power** 200W **Inputs** 6 line-in **Outputs** Speaker, headphone



#### **GamuT D3i £6150**

January 2015 ★★★★

This GamuT D3i is a brilliant performer with excellent detail and superb transparency. It isn't packed with inputs, but will cope with most set-ups. **Inputs** 3 line-in **Output** Balanced, single-ended **DAC** No



#### **Townshend Allegri £1895**

August 2012 ★★★★

The Allegri a passive unit with six inputs and two outputs, but the real attraction is a wonderfully transparent sound that brims with insight.

Inputs 6 line-in, MC Output Single-ended DAC No



#### Aesthetix Janus Signature£10,000

April 2015 ★★★★

This cutting-edge valve-powered preamp is remarkably refined but preserves all the energy and power in the music. Expensive, but lovely. **Inputs** 5 line-in, MM, MC **Outputs** Balanced, single-ended **DAC** No



#### Burmester 808 MK5 £22,242

February 2013 ★★★★★

Burmester's masterpiece may be decades old but a string of upgrades have kept it relevant. Sound quality remains exceptional.

Inputs line-in, MM, MC (opt) Outputs Balanced, single-ended DAC No



#### Mark Levinson 326S £9300

July 2015 ★★★★

This classy unit has a refined presentation and a spellbinding sense of control. Construction quality is deeply impressive.

Inputs 7 line-in Output Balanced, single-ended DAC No



#### Cyrus Mono X300 Signature £2750

October 2013 ★★★★

Don't let the Cyrus's compact casework fool you. This powerhouse delivers high volume levels with a pleasing dynamic punch.

Power output 225W Mono/Stereo Mono Inputs Phono, XLR



**Up to £500** 

# £1000 to £1500

#### GamuT D200i £8500

January 2015 \*\*\*\*

The D200i combines transparency, muscle and agility better than any alternative we've heard. Build and finish are excellent.

Power output 220W Mono/Stereo Stereo Inputs Phono, XLR



#### Altas Stereo Signature £10,000

April 2015 \*\*\*\*

This Atlas comes close to being all things to all listeners. It has loads of grunt, yet there's a gentle side too with delicacy and exceptional insight.

Power output 200W Mono/Stereo Stereo Inputs 2 x Phono, 2 x XLR



#### Burmester 911 Mk3 £32,800

August 2012 \*\*\*\*

The 911 is a real powerhouse, capable of delivering high power into difficult speakers without struggling. Refinement is top class, as is build.

Power output 535W Mono/Stereo Stereo Inputs XLR

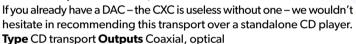


#### **CD PLAYERS & TRANSPORTS**

GET THE RIGHT PLAYER AND CD CAN STILL SHINE

#### Cambridge Audio CXC £300

Best CD transport under £500, Awards 2015 ★★★★





#### Marantz CD6005 £300

Best CD player under £500, Awards 2015 ★★★★

Marantz's CD6005 is rightly regarded as fantastic player, one that offers sprinkles of improvements on top of its superb predecessor.

Type CD player Outputs Coaxial, optical, RCA, headphone



#### Onkyo C-N7050 £350

April 2015 \*\*\*\*

A CD player or a hi-res music streamer? Whatever it is, the C-N7050 is a hugely appealing system that combines the best of both worlds. Type CD player/streamer Outputs Optical, coaxial, line level



AWARD WINNER

PRODUCT OF THE YEAR

AWARD WINNER

#### Cyrus CD t £750

Best CD transport £500+, Awards 2015 ★★★★

An exceptionally talented transport, the CD t offers a level of insight, transparency and clarity you'd struggle to find elsewhere at this price. Type CD transport Outputs Coaxial, optical



#### Cyrus CD i £1050

Best CD player £500+, Awards 2015 ★★★★

Cyrus says this player is its best-sounding yet, and after listening to how confident and entertaining it sounds, it's tough to disagree.

Type CD player Outputs Coaxial, optical, RCA



#### Naim CD5si £1080

October 2014 ★★★★

The CD5si boasts a full-bodied, winningly enthusiastic approach to music. The absence of digital outputs means there's no upgrade path. Type CD player Outputs RCA, DIN





#### Roksan K3 CD Di £1300

November 2015 ★★★★

Few players at this price are as musical as the K3 CD Di. It promotes the character of your music, so you'll never tire of listening to it. Type CD player Outputs Coax, opt, XLR, RCA Inputs Coax, opt



#### Cyrus CD Xt Signature £1750

May 2015 ★★★★

Looking for a top-class transport? The Xt Signature provides a sound that's cleaner, crisper and more dynamic than its predecessor.

Type CD transport Outputs Coaxial, optical



#### Roksan Caspian M2 CD £1900

Awards 2010 \*\*\*\*

The Caspian M2 CD has been around the block, but it's showing few signs of its age, showing skill with timing, dynamics and authority. Type CD player Outputs Coaxial, optical, USB, XLR, RCA



#### Esoteric K-05 £7495

January 2014 ★★★★

The K-05 is a hefty, well-built piece of hi-fi. The sense of scale and composure is impressive; as is its powerful, yet articulate bass. Type CD player Outputs Coax, opt, XLR, RCA Inputs Coax, opt, USB



#### Metronome Le Player £5490

April 2016 \*\*\*\*

'Entry-level' in name only, this effort from Metronome features an agile, articulate presentation along with plenty of insight.

Type CD player Outputs Coaxial, optical, USB, XLR, RCA



#### Burmester 089 £13,320

January 2016 ★★★★★

A top-class player that requires a suitably talented system to shine, the 089 is one of the best digital sources money can buy.

Type CD player Outputs Coaxial, optical, USB Inputs Coax, opt



#### Burmester 069 £35,840

November 2013 ★★★★

If you can get past the massive price tag then you have a wonderful player that ranks among the best, if not the best, we've ever heard. Type CD player Outputs 2 x coaxial, opt, XLR, RCA Inputs Coax, opt



#### **DACS**

A DIGITAL-TO-ANALOGUE CONVERTER IS A MODERN HI-FI MUST

#### Arcam miniBlink £90



Best Bluetooth receiver, Awards 2015 ★★★★

This receiver has serious dynamic clout, with a zingy and fluid rhythm. The 3.5mm analogue output means an adaptor is needed for trad hi-fi. Inputs Bluetooth Size (hwd) 2.5 x 3 x 4cm



#### Audioquest DragonFly v1.2 £130

February 2014 ★★★★★

This tiny DAC/headphone amp remains one of our favourites for its USB-stick size and fine sonic talents. Clear, detailed with a fantastic sense of timing. Inputs USB Size (hwd) 6 x 2 x 1cm Resolution Up to 24-bit/96kHz

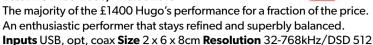




E1000 to £2000

#### Chord Mojo £400

Best DAC £400-£800, Awards 2015 ★★★★





#### Oppo HA-2 £250

Best DAC under £400, Awards 2015 ★★★★

The range of inputs makes this ideal to use with any laptop or smartphone. The engaging performance and detail retrieval is remarkable at the price. **Inputs** USB, optical **Size**  $16 \times 7 \times 1 \text{cm}$  **Res** up to 384 kHz, 16/24/32 -bit



#### Audio

#### Audiolab M-DAC £600

June 2015 ★★★★

A good desktop alternative to the Chord Mojo, with plenty more sockets and features. Smooth balance, fluid dynamics and subtle detail. **Inputs** USB, opt, coax **Size**  $6 \times 25 \times 25 \text{cm}$  **Res** Up to 24-bit/192kHz



#### Chord 2Qute £1000

August 2015 ★★★★

The 2Qute's insight, accuracy and dynamic punch outshine rivals with aplomb. The colourful display and the shiny chassis continue to wow us. **Inputs** USB, opt, coax **Size**  $7 \times 16 \times 4$ cm **Resolution** Up to 32-bit/384kHz



#### Chord Hugo £1400

March 2015 \*\*\*\*

The Hugo benefits from the genius circuitry informing Chord's latest products. It has superb timing, remarkable clarity and plenty of power. Inputs  $2 \times USB$ , opt, coax Size  $2 \times 13 \times 10cm$  Resolution Up to 384kHz



#### Naim DAC-V1 £1350

Februaru 2016 ★★★★★

Naim's entry DAC is typical of the company's sonic signature, combining a balanced tone with strong dynamics and fine organisation. **Inputs** USB, 2x opt, 3x coax **Size** 9x 21x 32cm **Res** 24-bit/384kHz



#### Bricasti Design M1 DAC £7000

March 2014 ★★★★

This high-end DAC is impeccably built. There's power, rhythmic coherence and dynamic punch, but it majors in analysis of the music. **Inputs** USB, opt, coax, AESB, HDMI **Size**  $6 \times 43 \times 30$ cm **Res** to 352.8kHz



#### **Chord Hugo TT £2995**

September 2015 ★★★★

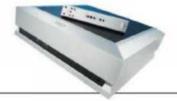
This 'table-top' version is the basic Hugo design, but supercharged. The finish is gorgeous, and it sounds better than its cheaper siblings. **Inputs** USB, opt, coax **Size**  $5 \times 24 \times 23$ cm **Res** Up to 32-bit/384kHz



#### TAD DA1000 £11,995

May 2015 ★★★★

It's massive and it costs an eye-watering £12,000, but this is a brilliant performer. Agile and refined, it handles low level detail with finesse. **Inputs** USB, opt, coax, AES/EBU **Size**  $9 \times 27 \times 27$ cm **Res** Up to 384kHz





FOR A FULL LIST OF SPECIFICATIONS AND IN-DEPTH REVIEWS VISIT WHATHIFI.COM

AWARD WINNER

AWARD WINNER

#### **MUSIC STREAMERS**

#### THE BEST WAY TO SHARE YOUR TUNES AROUND THE HOUSE

PRODUCT OF THE YEAR

> AWARD WINNER

AWARD WINNER

#### Bluesound Node 2 £435

November 2015 ★★★★

Looking for a non-amplified streamer to hook up to your existing hi-fi? The Node is back, and better, with improved design and connectivity. **DLNA** Yes **Inputs** Toslink, 3.5mm **Storage** No



#### Google Chromecast Audio £30

January 2016 ★★★★★

Google turns its expertise to audio streaming to bring music from any Cast-compatible app to your amps and speakers. And for only £30. **DLNA** Yes **Inputs** RCA, 3.5mm, optical **Storage** No



#### Cambridge Audio CXN £700

Best streamer £500-£1000, Awards 2015 ★★★★

Building on the success of Cambridge's Award-winning Stream Magic 6 v2, the CXN features an all-new design and improved sound. **DLNA** Yes **Inputs** optical, coaxial, 3 x USB **Storage** No



#### Pioneer N-50A £500

Best streamer £500-£100, Awards 2015 \*\*\*\*

The impressive N-50A offers an insightful performance, and can pluck music over DLNA and Internet radio or via a hoard of inputs.

DLNA Yes Inputs optical, coaxial, USB Storage No



#### Cambridge Audio Azur 851N £1200

March 2016 ★★★★

A sterling streamer that boasts excellent file support, plenty of connections and a sound that's both expressive and dynamic. **DLNA** Yes **Inputs** 2 x optical, 2 x coaxial, 3 x USB, ethernet **Storage** No



#### Cyrus Stream Xa £1250

Best streamer £1000-£1500, Awards 2015 ★★★★

The two-time Award-winning Xa is a corker. Its half-width design won't be everyone's cup of tea, but its truly entrancing sound surely will. **DLNA** Yes **Inputs** 2 x optical, 3 x coaxial, USB **Storage** No



#### Cyrus Stream XP2-Qx £2010

Awards 2012 ★★★★

An all-in-one music streamer that serves up an energetic, enthusiastic and immersive performance. Worthy of the sizeable asking price. **DLNA** Yes **Inputs**  $2 \times \text{optical}$ ,  $3 \times \text{coaxial}$ , USB **Storage** No



#### Naim ND5 XS £2245

Best streamer £1500+, Awards 2015 ★★★★

A forward-thinking design from an established hi-fi company. A brilliant sonic performance and a must-have if you're after a do-it-all streamer. **DLNA** Yes **Inputs** USB, coaxial, optical **Storage** No



#### Burmester Musiccenter 151 £12,500

August 2015 ★★★★

This multi-talented machine is a streamer, server, CD player and ripper, all wrapped in one superbly made chrome-laden box.

**DLNA** Yes Inputs optical, coaxial, **USB Storage** 4TB



#### Naim NDS/555PS £12,620

December 2012 ★★★★

Hear what this monster of a streaming machine can do and there will be no going back. Can afford the outlay? Lucky you **DLNA** Yes **Inputs** 2 x coaxial, optical **Storage** No



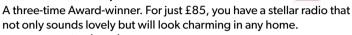
#### **RADIOS**

ONE OF THE OLDEST ENTERTAINMENT TECHS, STILL GOING STRONG

PRODUCT OF THE YEAR

#### Pure Evoke D2 £90

Best radio under £100, Awards 2015 ★★★★



Battery Yes Size (hwd) 15 x 21 x 7cm Inputs Mini-USB, 3.5mm



#### Roberts Stream 93i £150

Best radio £100-£200, Awards 2015 ★★★★

This Roberts delivers deep bass that doesn't overpower the midrange. Spotify Connect, wi-fi and USB playback are the headliners.

Battery No – Size (hwd) 21 x 24 x 13cm Inputs 3.5mm



#### Geneva World Radio DAB+ £270

September 2013 ★★★★★

This Bluetooth-toting portable radio is a sleek machine that's a breeze to use. The full-bodied, detailed performance is worth the price. **Battery** Yes (chargeable) **Size**  $18 \times 30 \times 12$ cm **Inputs** 3.5mm, B'tooth



#### Revo Axis X3 £200

January 2014 ★★★★★

Strong with voices, the X3 goes surprisingly loud for a compact radio. It also has internet radio, aptX Bluetooth and a Lightning connector dock. **Battery** No **Size**  $13 \times 22 \times 15$ cm **Inputs** 3.5mm, B'tooth, Apple, DLNA



#### Revo SuperConnect £280

Best radio £200+, Awards 2015 ★★★★

Not just a radio, this feature-packed Revo is a streaming music player that will play just about anything from nearly any source.

Battery No Size 18 x 27 x 12cm Inputs 3.5mm, Bluetooth, DLNA



#### Ruark Audio R1 Mk3 £200

April 2015 ★★★★

A stylish design, petite size and a solid performance packed with detail and character mean this charming unit is perfect for talk-radio and music. **Battery** Yes (opt) **Size (hwd)**  $17 \times 13 \times 13.5$ cm **Inputs** AUX in, 3.5mm



#### STEREO SPEAKERS

THEY BRING THE MUSIC TO YOUR EARS - SO CHOOSE WITH CARE



#### Eclipse TD-M1 £800

August 2014 ★★★★☆

Some might feel the TD-M1s are watching them – but we're more interested in the great stereo imaging, fine detail and precision. **Size (hwd)**  $24 \times 16 \times 22$ cm **Powered** Yes **Finishes** 2



#### KEF Egg £350

Best desktop speaker £200+, Awards 2015 \*\*\*\*

Our 2015 Best Desktop Speaker Over £200 have a distinctive design and flexible connectivity - and a stunning, consistent performance. Size (hwd) 27 x 13 x 17cm Powered Yes Finishes 3



#### Q Acoustics 3050 £500

Best floorstander under £600, Awards 2015 \*\*\*\*

Another 2015 Award-winner, and no wonder. The powerful 3050s are so talented, they give speakers closer to £1000 a run for their money. Size (hwd) 100 x 20 x 30cm Bi-wire Yes Finishes 5



AWARD WINNER

"Hats off to Q Acoustics: these speakers are another staggering achievement"

#### Tannoy Eclipse Three £300

lune 2016 \*\*\*\*

A speaker that's easy to set up and partner, this is the most talented budget floorstander we've heard in years.

Size (hwd) 96 x 27 x 29cm Bi-wire No Finishes 1



"The Threes turn in a musically engaging performance that compares to the best at this price"

#### B&W 683 S2 £1150

October 2014 \*\*\*

Tremendously talented speakers. We're impressed by their power, scale and delicacy - they're wonderfully versatile performers. Size (hwd) 99 x 19 x 36cm Bi-wire No Finishes 2



"Among the best floorstanders we've heard at this price"

#### Q Acoustics Concept 40 £1000

May 2015 ★★★★

If you want a talented set of speakers with an easy-going, welcoming sound, you must consider these.

Size (hwd) 97 x 17 x 29cm Bi-wire Yes Finishes 2



"Aim to give you a sound that you can happily listen to"

#### Tannoy Revolution XT 6F £1000

Best floorstander £600-£1200, Awards 2015 \*\*\*\*

These Tannoys are something special – they fire out an infectious, entertaining sound that charms us. Superbly finished, too. Size (hwd) 100 x 27 x 32cm Bi-wire Yes Finishes 2

"They're beautifully finished, but more importantly they sound every bit their asking price"

#### Tannoy Revolution XT 8F £1300

July 2015 \*\*\*\*

Few rivals will be able to match this combination of muscle and subtlety. Most of all they make listening to music fun. Size (hwd) 108 x 32 x 35cm Bi-wire Yes Finishes 2



"Give them a larger room to play in and the XT8Fs will shine"

#### **Eclipse TD 510Z Mk2 £3840**

August 2012 ★★★★

The 510Z Mk2s plump for the single-driver route to quality sound. It yields insight, impressive agility and rock-solid stereo imaging. Size (hwd) 98 x 38 x 39cm Bi-wire No Finishes 3



"They do things that no conventional rival can match"

#### **PMC Twenty 23 £2300**

February 2014 ★★★★

These PMCs show real class, serving up sound that's both refined and exciting. The 23s stand on their clean insight and unfussy nature. Size (hwd) 92 x 15 x 33cm Bi-wire Yes Finishes 4



"Given a suitably talented system, the Twenty 23s sound terrific"

#### Spendor A6R £2500

Best floorstander over £1200, Awards 2015 ★★★★

Musical notes have dimension and depth, and vocals are conveyed with reality and emotion. Outstanding.

Size (hwd) 87.5 x 19 x 28cm Bi-wire No Finishes 5



"A fantastic pair of speakers that do so much right"

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Anca, Store Manager, Watford. 8th year of service



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#### **Hi-fi** a selection from our massive range



#### Q Acoustics speakers (pair)

2020i (graphite)

"They give instruments body and texture, and deliver vocals with a wealth of insight... they remain exceptional speakers." – What Hi-Fi?



RRP £169.95 | Regular price £119.95



#### Denon mini system inc. speakers

CEOL Piccolo N4 (white)

With support for high res audio files, punchy speakers and a stylish finish – this Denon offers serious sound for its size.



Regular price £199 | 6 Year Supercare only 10% of purchase price | Also available in black



#### Monitor Audio amplifier

A100 (black)

"Monitor Audio's AirPlay-equipped A100 delivers spellbinding sound quality and a chic, envelope-pushing design." - trustedreviews.com

Regular price £199 | 6 Year Supercare only 10% of purchase price | Also available in white



MX3i (black) "Peppy and

communicative. the MX3s are a real achievement

Mission

at the price." – What Hi-Fi?





#### Denon mini system exc. speakers

DM40 DAB (black)

"Denon has done it again - the DM40DAB is a seriously impressive micro system for the money." – What Hi-Fi?





6 Year Supercare only 10% of purchase price Also available in silver



#### Denon turntable

DP300 (black)

The DP300 is a sturdy and classy turntable, and with a built-in phono stage this Denon is ready to bring your vinyl to life

£249.95

Regular price £299.95 | 6 Year Supercare only 10%



#### Chord USB DAC/headphone amp

"Even at £399 we have to conclude that it's a bargain, and that makes it our Product of the Year." – What Hi-Fi?

6 Year Supercare only £39.90 Available in the majority of stores Check richersounds.com for more details.



#### Onkyo stereo receiver

What Hi-Fi? said of this 5-star hi-res network receiver "The clear detail, fluid dynamics and agile rhythm makes every song fun to



6 Year Supercare only £54.90



#### Why not add?



Chord speaker cable Clearway un-terminated

**£10** 





Chord interconnect





QED interconnect Reference Audio 40 (1m)

£99.95





cable Type 4
Terminated 2m pair

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### Premium hi-fi

\*Experience better audio performance. Pop down to hear how a top-notch system enhances your favourite music in our comfortable demonstration rooms."

Chris, Deputy Manager, Leeds. 11th year of service



#### Cambridge CX & Monitor Audio Bronze 6 speakers (pair)

LOWEST

#### CXA60 amplifier

"A great amplifier that looks and sounds the part – this Cambridge is a big success." – What Hi-Fi?

Regular price £499.95 | 6Yr Supercare only £49.95

• CXN network music player
"A stylish, feature-packed streamer that sounds great and is a joy to use."

– What Hi-Fi?

Regular price £699.95 | 6Yr Supercare only £69.95

#### CXC CD transport

"If you've already got a good DAC, the Cambridge CXC transport is a no-brainer." – What Hi-Fi?

Regular price £299.95 | 6Yr Supercare only £29.95

#### Bronze 6 (black)

"What a difference in power, depth and quality of sound... Well worth the money for what you get." – richersounds.com customer review.

Regular price £699.95 | 6Yr Supercare only £69.95



#### Arcam amplifier & SACD player FMJ A19 & CDS27

FMJ A19: "The A19 is quietly confident of its ability to deliver a transparent and faithful sound." – What Hi-Fi?

CDS27: A top quality CD/SACD player and music streamer in one, the CDS27 is a complete digital entertainer

£595 each AVE



RRP £1590 | 6 Year Supercare only £59.50 each



#### Audiolab amplifier & CD player 8300A & 8300CD

8300A: "Build is excellent and its large-scale sound gives it an edge over many rivals.

8300CD: "The 8300CD remains a useful machine and a capable, polished performer.

#### Call or see web

6 Year Supercare only 10% of purchase price

#### Musical Fidelity amplifier & CD player M3si & M3scd

"This is an elegant way of doing things.
The Musical Fidelity combo appoints its CD player to be the centre of attention, with full CD playback offered plus DAC functionality.. The result is something that is easy and intuitive to use." – Hi-Fi Choice.

£1099 each

6 Year Supercare only £109.90 each

#### Roksan amplifier & CD player K3 CDDI & K3

K3 amplifier: "Roksan is back on its A-game with the K3, which is nothing short of a superb amp for the price." - What Hi-Fi?

K3 CDDI: "The CDDI is another five star product worthy of its place in the K3 range." - What Hi-Fi?

£1249 each



RRP £2548 | 6 Year Supercare only £124.90 each



#### Sony hi-res USB turntable PSHX500

Enjoy the very best of old and new technologies by recording from vinyl to Hi-Res Audio, so you can always enjoy your favourite tracks.

£449







irDAC II



9

Arcam digital pre-amplifier/DAC

"Generous amounts of detail stretch to

even-handed palette that's refined and

every corner of the Arcam's big, expansive

soundstage, and are delivered on a tonally

6 Year Supercare only £49.50

smooth." - What Hi-Fi?



#### Technics mini system & KEF speakers (pair) SUC550 (silver) & Q300 (black)

This versatile Technics mini system paired with these KEF speakers will let you hear your music in a whole new light







Lyric Stealth







Cyrus streaming mini system & Tannoy floorstanding speakers (pair) Revolution XT 6F (dark walnut) &

A great CD player with fantastic features.

which sounds amazing paired with the

award-winning Tannoy XT 6Fs.



system purchase price

£1299.95



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# **Headphones** we stock 13 out of 14 What Hi-Fi? award-winning headphones



Sennheiser in-ear

"Sennheiser's Momentum range grows and so does our admiration." – What Hi-Fi?







AKG on-ear closed-back

"A hugely capable pair of closed-back headphones." – What Hi-Fi?

£109.95





Shure in-ear

"The finest in-ears we've ever heard at this price." - What Hi-Fi?





Shure on-ear closed-back

"The SHR1540s amount to another outstanding effort from Shure." - What Hi-Fi?





# Streaming audio

"Experience better quality music from streaming services. Spotify, Tidal, Deezer, Qobuz and internet radio all sound incredible on these wireless speakers."

Josh, Deputy Manager, Chelsea. 6th year of service



#### Audio Pro Bluetooth speaker Addon T3 (white)

"A classy wireless speaker that ignores best sound possible for the money





#### FREE 90 day Tidal trial

#### Naim wireless music speaker Mu-So Qb

"A small speaker with big personality, the Qb combines style, substance and a whole lot of features at a more affordable price." - What Hi-Fi?







#### Naim wireless music speaker

"Naim's first entry into the wireless speaker market, and it's an absolute belter

- What Hi-Fi?

Supercare only £89.50







"Heos proves to be an exciting new product." - hifichoice.com

HEOS 3 6 Year Supercare

HEOS 5 HS2

HEOS 7 HS2 £499

#### Sonos

The What Hi-Fi? award-winning multiroom system from Sonos enables music throughout the home. From the most compact PLAY:1 in the kitchen, larger PLAY:3 and PLAY:5s in the study and lounge, to complete surround sound systems. Sonos has a solution.

PLAY:1 £169 6 Year Supercare £16.90

Also available in white

PLAY:3 £249 6 Year Supercare £24.90

PLAY:5 £425 6 Year Supercare £42 90

6 Year Supercare £59.90











#### Samsung Wireless Audio 360 speakers



#### R1 starter kit offer

"Sound quality is excellent and the bass is deep.. Hard to believe this all comes from such a small device. richersounds.com

RRP £339 6 Year Supercare only £28.80



"Attractively designed and well constructed... offers a tempting combination of performance and features."

– avforums.co.uk



#### R6 (portable)

"The R6 was able to produce a balanced and spacious soundstage that really filled the room, no matter where we stood." - avforums com

RRP £399 6 Year Supercare only £32.90 Also available in white



"A stylish, innovative and great-sounding speaker that takes multiroom technology to new heights."

trustedreviews com









6 Year Supercare available (For hi-fi and home cinema components)

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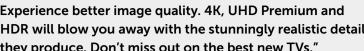


TX55CX680B

## TVs Brand new ranges

\*Experience better image quality. 4K, UHD Premium and HDR will blow you away with the stunningly realistic detail they produce. Don't miss out on the best new TVs."

Tim, Deputy Manager, Bromley. 2nd year of service





"Good picture, easy to use, all round top TV. An excellent price for a 4K TV." – richersounds.com customer review.

Boasting a 4K UHD screen resolution, you'll experience astonishing levels of picture detail. FirefoxOS and a Quad-Core processor make navigating Panasonic's vast array of content easier and faster than before. Plus with Freeview Play built in, all of these amazing features come together to make this Panasonic a truly stunning, must-have TV.











#### Samsung 55" 4K UHD Premium Smart LED TV UE55KS7000

"Remarkable picture quality at a reasonable price – what isn't there to like?" – What Hi-Fi?











#### Sony 55" 4K Ultra HD Smart LED TV Bravia KD55XD9305

"The 4K screen on this TV is excellent with sources like Netflix and YouTube. It upscales HD beautifully too.

richersounds.com customer review









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Panasonic 58" 4K Ultra HD Smart 3D LED TV TX58DX902B

Taking 4K Ultra HD to new heights is the DX902 from Panasonic, it's Ultra HD Premium

**UHD** PREMIUM

SMART TV





LOWEST

#### LG 65" 4K Ultra HD Smart OLED TV OLED65G6V

This stunning super-thin OLED TV will revolutionise the quality of your viewing experience by far

£5999





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# **Projectors**

over 30 models in our range



#### Optoma projector HD28DSE

"The HD28DSE delivers the crispest, most detailed images you can get on a sub-£1000 projector." – trustedreviews













Epson HD 3D projector EHTW7200

Exciting, immersive and effortless,

this Epson projector is perfect for





#### Sony HD 3D projector VPLHW65ES

"The HW65ES keeps Sony's current projector roll going in emphatic style - and proves there's plenty of life left in HD yet - trustedreviews.com







#### Sony 4K 3D projector VPLVW320ES

"If you want a 4K UHD projector for your home or other non-professional cinema setting, the VPLVW320ES is one of the best choices available." - 4k.com

£5849 6...





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£169

- What Hi-Fi?

RRP £249 | Regular price £219 6 Year Supercare only 10% of pu

Canton TV sound base DM55

6 Year Supercare only £32.90

"If you're after a sound base that both looks good and performs brilliantly, this is definitely one you need to audition." – What Hi-Fi?

only 10% of purchase price

VIP Club price

**AV** separates

dozens more in store

Sony Smart Blu-ray player BDPS7200 "Serves up a classy picture and stunning sound - an impressive all-rounder.

Philips TV soundbar HTL5140 Balanced, dynamic and well-integrated. the HTL5140 runs rings around its rivals."

#### **AV** receivers

"Experience better TV sound by adding a soundbar, sound base or home cinema system. We have something for everyone."

Ben, Store Manager, Birmingham. 10th year of service

#### Yamaha AV receiver RXV679 (black)

With a full range of streaming options and built-in 4K upscaling, this Yamaha AV receiver is endlessly entertaining.

"Sound quality is sensational and watching action movies feels like you're in the cinema.

richersounds.com customer review.





RRP £449 | Regular price £329 | 6 Year Supercare only 10% of purchase price | Also available in titanium



ō

This entry-level home cinema amp has full 4K support and is sure to bring your TV and







#### Pioneer Atmos AV receiver

Boasting Dolby Atmos and a whole range of features and connections for a seamless movie experience – this Pioneer is a dream to use





#### Cambridge Audio 5.1 speaker package Minx S215 (black)

"You'll be astounded by how effectively the speakers and subwoofer work together to fill the space." – What Hi-Fi?

Ask in-store for 6 Year Supercare price





#### Onkyo Atmos AV receiver

**Denon Atmos AV receiver** 

Call or see web

"An articulate detailed multi-channel

6 year Supercare only 10% of purchase price

amplifier with stacks of functionality and

future-proofing, including Dolby Atmos."

– What Hi-Fi?

TXRZ800

"It sounds delectable with high-res audio sources, and with DTS:X compatibility to complement Dolby Atmos. Give it a listen." - homecinemachoice.com



RRP £1049 | Regular price £699 6 Year Supercare only 10% of purchase price



#### Pioneer Atmos AV receiver

SCLX59

"True to form, Pioneer has produced another stunning home cinema amplifier belying its relatively modest price tag." – What Hi-Fi?



Year Supercare only £119.90



#### Yamaha Atmos AV receiver RXA3050

This receiver has astounded me with the quality of sound produced. It makes me smile every time I use it.

- richersounds.com customer review.

1699



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a selection from our massive range



Philips TV soundbar Fidelio B5

"An ingenious soundbar that delivers an exciting, immersive surround sound performance." – What Hi-Fi?

549.95 SAVE MINUALET

Regular price £599.95 | 6 Year Supercare only 10%



Panasonic 4K Blu-ray player

"The future of home cinema, on disc. A sight to behold." - What Hi-Fi?







DALI subwoofer

SUB K14

This formidable subwoofer will add sublime bass to your music and movies, and make the room shake while doing it.

6 Year Supercare only £89.90



LOWEST

Monitor Audio 5.1 package

Radius R90HT1

This package sounds wonderfully cohesive and entertaining – it's up there with the very best at this price." – What Hi-Fi?

£1500





# 3 great ways to buy



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03 NUMBERS ARE NOT PREMIUM RATE NUMBERS! 03 numbers connect you directly to the store you call and are charged at the sa for mobile phones and landlines. ers starting 01 and 02\_03 numbers are included in all bundle rates





#### Spendor D7 £3500

February 2014 ★★★★★

When it comes to insight and precision, these floorstanders set the standard at this price. Unfussy, and they deliver a huge sound for their size. Size (hwd)  $95 \times 20 \times 32$ cm Bi-wire No Finishes 6



"Spendor has a rich history of making terrific speakers. You can count the D7s among them"

#### Triangle Signature Delta £4900

July 2014 ★★★★

Terrific timing ability combines with strong dynamics and impressive resolution to produce speakers that can stand toe-to-toe with the best. Size (hwd)  $123 \times 37 \times 39$ cm Bi-wire No Finishes 3



"They're entertainers of the highest order"

#### ATC SCM40A £6280

April 2014 \*\*\*\*

The price looks steep but factor in built-in amplification and exceptional sound, and the SCM40As emerge as something of a high-end bargain. Size (hwd)  $98 \times 37 \times 34$ cm Bi-wire No Finishes 2 Powered Yes



"Once up and running, these ATCs are deeply impressive speakers"

#### Focal Electra 1038Be £7700

July 2015 ★★★★

A hefty slice of the performance of Focal's high-end Utopia range, at a fraction of the cost. Impressive detail, dynamics, bass and timing. **Size (hwd)**  $125 \times 30 \times 40 \text{cm}$  **Bi-wire** No **Finishes** 2



"Wonderfully polished performers that work well with all types of music"

#### **PMC Twenty 26 £5750**

November 2014 ★★★★

This range of speakers hardly puts a foot wrong. Here, it's the insightful yet refined balance and impressive levels of detail that win the day. **Size (hwd)**  $109 \times 19 \times 44$ cm **Bi-wire** Yes **Finishes** 4



"An all-round package that's very hard to pick holes in"

#### ProAc Response D40/R £6125

October 2013 \*\*\*\*

As musical as they come, these are also as articulate, transparent and dynamic as any floorstander we've heard around this price.

Size (hwd)  $120 \times 21 \times 34$ cm Bi-wire Yes Finishes 6



"We could stretch this out, but we won't: the D40/Rs are wonderful"

#### Quad ESL-2812 £6500

October 2013 ★★★★★

Electrostatic speakers with cutting-edge standards of mid-range finesse, great detail and a smooth tone. In many respects, unmatched. Size (hwd)  $107 \times 69 \times 38$ cm Bi-wire No Finishes 1



"Spend some time with the Quads and the shortcomings in conventional speakers soon become apparent"

#### **Tannoy Definition DC10T £5250**

October 2013 ★★★★★

We've heard few price rivals that come close to matching the dynamic envelope, authority and sheer engagement of these big Tannoys. Size (hwd)  $113 \times 34 \times 32$ cm Bi-wire Yes Finishes 3



"These are speakers with a big heart and it's really hard not love them"

#### Top tips: Positioning a standmount speaker

Where's the best place to position a standmount speaker? Some speakers, like Wharfedale's Diamond 220, produce a much more solid and surefooted sound backed up against a wall, while others prefer to be out in the open. The amount of space you have available might dictate your choice of speaker.

The common practice is to have the tweeters at your ear-level when you're seated, because

higher-frequency sounds from a tweeter are more directional. Having them at this height ensures they make a beeline for your ears.

A word on speaker stands. They help keep the speaker cabinet rigid allowing for more of the drivers' movement to be translated into sound and not wasted through vibrations. If you're placing them on a carpet, make sure you have the spikes needed to keep them in place.







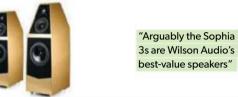
#### **Tannoy Kensington GR £9950**

August 2015 \*\*\*\*

Along with that traditional appearance comes real substance. These are gentle giants, balancing finesse with force in a mighty appealing way. Size (hwd) 110 x 41 x 34cm Bi-wire Yes Finishes 2



"There's enough sonic quality to place them on the top rung of speakers at this price"



#### Wilson Audio Sophia 3 £16,500

October 2013 \*\*\*\*

Eye-wateringly expensive but hugely capable, too. Properly partnered they're able to deliver a sound full of detail, dynamics and drive. Size (hwd)  $105 \times 35 \times 48 \text{cm}$  Bi-wire No Finishes 7

#### Dali Zensor 1 £200

luly 2015 ★★★★☆

If you're looking for a versatile, energetic pair of affordable speakers, give these a listen. They have a real feel for the the music. Good fun. Size (hwd) 27 x 16 x 22cm Bi-wire No Finishes 2





#### Monitor Audio Bronze 2 £280

Best standmounter £200-£400, Awards 2015 ★★★★

For their size, these Monitor Audio Bronze 2 dig deep in the bass. They're tonally balanced and impressively detailed too. Size (hwd)  $35 \times 19 \times 26$ cm Bi-wire Yes Finishes 4



#### Q Acoustics 3020 £190

Best stereo speaker under £200. Awards 2015 \*\*\*\*

These lovingly constructed boxes deliver an exceptional combination of refinement, insight and dynamics. We can't fault them. Size (hwd) 26 x 17 x 23cm Bi-wire No Finishes 5



#### Wharfedale Diamond 220 £180

March 2015 ★★★★

A talented speaker that's a great fit for a budget or mid-range set-up. At less than £200 the Diamonds are an attractive proposition. Size (hwd) 50 x 32 x 41cm Bi-wire Yes Finishes 4



#### Dali Zensor 3 £300

October 2014 \*\*\*\*

If they're made by Dali, they're going to be fun to listen to. These classy-looking speakers have plenty of punch and winning dynamics. Size (hwd) 35 x 21 x 29cm Bi-wire No Finishes 3





#### Q Acoustic Concept 20 £350

October 2013 \*\*\*\*

If you want a top-quality, sub-£500 standmounter you ignore this one at your peril. Clarity and refinement shine through in abundance. Size (hwd) 26 x 17 x 28cm Bi-wire Yes Finishes 2



#### B&W 685 S2 £500

Best stereo speaker £400-£800, Awards 2015 ★★★★

Put simply, the 685 S2s are superb. Hugely entertaining, with power, punch and excellent detail retrieval.

Size (hwd) 35 x 19 x 32cm Bi-wire Yes Finishes 2



#### KEF LS50 £800

December 2013 ★★★★

These striking speakers are blindingly good. Get their partnering kit right and you'll revel in the excellent bass, energy and fine articulation. Size (hwd) 30 x 20 x 28cm Bi-wire No Finishes 1



PRODUCT F THE YEAR

#### Martin Logan Motion 15 £795

December 2013 ★★★★☆

A talented and fun pair of speakers. We particularly like the lively, natural presentation, even if the low end could do with more punch. Size (hwd)  $29 \times 13 \times 24$ cm Bi-wire No Finishes 2



#### Neat lota £695

December 2013 ★★★★

You wouldn't think it to look at them but these unusual speakers turn out a big, weighty, detailed performance. They sound truly remarkable. Size (hwd)  $13 \times 20 \times 17$  cm Bi-wire No Finishes 5



#### **Triangle Esprit Titus EZ £600**

April 2015 \*\*\*\*

Your hunt to find a supplier for the Esprits might take a while, but it will be worth it for the articulate and agile presentation you'll hear.

Size (hwd) 31 x 17 x 27 cm Bi-wire No Finishes 3



#### ATC SCM11 (2013) £1200

Best standmounter £800-£1200, Awards 2015 ★★★★

These are the most talented standmounters anywhere near this price.
The transparency of their sound compares with far more expensive rivals.

Size (hwd) 38 x 21 x 25cm Bi-wire Yes Finishes 2 Powered Yes



#### Neat Motive SX3 £1045

November 2015 ★★★★

If you're tight on space, or don't need an overpowering sound, these articulate, fun-loving speakers should be a shoo-in for your shortlist. Size (hwd)  $33 \times 16 \times 20$ cm Bi-wire No Finishes 4



#### ProAC Studio 118 £1075

November 2015 ★★★★

Weighty, detailed bass, lively treble and a good natural balance overall. The energy of the 118's performance will provide hours of enjoyment. **Size (hwd)**  $38 \times 19 \times 24$ cm **Bi-wire** Yes **Finishes** 4



#### Dynaudio Xeo 4 £1775

November 2014 ★★★★

The active Xeo 4s (they have built-in amps) offer hassle-free set-up and an insightful, musical sound from almost any source. High-res support, too. Size (hwd)  $28 \times 17 \times 25$ cm Bi-wire No Finishes 2



#### **PMC Twenty 22 £1920**

November 2014 ★★★★★

Solid build and a quality finish are just the start; it's a big, authoritative sound, perfect for those who like a natural kind of presentation. **Size (hwd)**  $41 \times 18 \times 37$ cm **Bi-wire** Yes **Finishes** 4



#### ATC SCM19 £2000

Best standmounter £1200+, Awards 2015 ★★★★

It's quite a trick for a speaker to be highly analytical with music yet never sound clinical or passionless. And yet so it is with the SCM19s. **Size (hwd)**  $44 \times 27 \times 30$ cm **Bi-wire** No **Finishes** 2



#### ATC SCM20ASL Pro £4380

October 2015 ★★★★

These ATCs are terrific value. Getting standmounters and four power amplifier channels of such a high standard should cost far more than this. Size (hwd)  $45 \times 25 \times 39$ cm Bi-wire Yes Finishes 1 Powered Yes



#### Focal SM9 £4100

October 2013 \*\*\*\*

1.2 kW of power amplification and sound quality that conventional alternatives at twice the price would struggle to better. Quite superb. Size (hwd)  $32 \times 49 \times 39$ cm Bi-wire No Finishes 1



#### Roksan Darius S1 £5000

December 2014 ★★★★★

Fluid, balanced and with a solid, agile bass, the S1s are among the most enjoyable standmounters we've heard in years.

Size (hwd) 38 x 20 x 38cm Bi-wire No Finishes 2



#### Spendor SP2/3R2 £2795

April 2016 \*\*\*\*

They might lack the excitement of modern alternatives, but these retro speakers boast an easy-going sound and are a pleasure to listen to. Size (hwd)  $55 \times 28 \times 33$ cm Bi-wire Yes Finishes 1



## **SYSTEMS**

SIMPLE DOESN'T HAVE TO MEAN LOWER QUALITY

AWARD WINNER

AWARD WINNER

PRODUCT OF THE YEAR

#### Sonos System From £175

Best multi-room system under £500, Awards 2015 \*\*\*\*

If you don't need high-res, Sonos is an obvious choice for multi-room. A great user experience alongside a full-bodied, insightful sound. **Res** 16-bit/44.1kHz **App** Mac, Android **Formats** MP3, iTunes Plus, WMA



#### Bluesound Generation 2 From £540

Best multi-room system over £500, Awards 2015 ★★★★

Bluesound's Generation 2 has a more streamlined design and sounds as good as ever, offering high-res support and good connectivity. **Res** 24-bit/192kHz **App** iOS, Android **Formats** MP3, AAC, WMA, OGG



#### Cambridge Audio Minx Xi £400

Best music system £400-£800, Awards 2015 ★★★★

This terrific system is a joy to use. It has a 24-bit/96kHz resolution limit, but that's OK in light of its articulate and hugely likeable character. **Inputs** Analogue & digital **Sources** Streaming, internet



#### Denon D-M40DAB £350

Best music system under £400, Awards 2015 ★★★★

Denon continues to reign supreme on the micro-systems front. There are no Bluetooth or wireless features, but the sound makes up for it. **Inputs** Analogue & digital **Sources** CD, streaming, DAB, FM



#### Ruark Audio R2 Mk3 £400

Best all-in-one music system, Awards 2015 ★★★★

Packed with extensive radio, network and streaming features, this is a system whose spacious, rich and dynamic performance is captivating. **Inputs** Analogue & digital **Sources** Streaming, internet, DAB, FM



#### Naim UnitiQute 2 £1295

Best music system £800-£1500, Awards 2015 ★★★★

The epitome of a modern streaming system. The insightful, rhythmically precise, spacious sound is tremendous – and worth the high-end price. **Inputs** Analogue & digital **Sources** Streaming, internet, DAB+, FM





 $\overline{\mathsf{Up}}$  to £ $\overline{\mathsf{500}}$ 

#### Onkyo TX-8150 £550

April 2016 \*\*\*\*

This modest, unassuming black box is packed to the gills with every streaming feature you can think of. One of the bargains of the year.

Inputs Analogue & digital Sources Streaming, internet, AirPlay



#### **Revo SuperSystem £550**

May 2016 ★★★★★

An all-in-one system that exudes quality, this Revo features great sonic performance and terrific retro looks. It's a talented system.

Inputs Analogue & digital Sources Streaming, internet, Bluetooth



### **TURNTABLES**

DECKS TO KEEP THE VINYL REVIVAL THRIVING

#### Audio Technica AT-LP5 £300

June 2016 \*\*\*\*

A pleasure to use and listen to, the LP5 boasts both ease of use and the added bonus of a USB ouput. At this price there's none better. **Speed** 33.3 & 45rpm **Size (hwd)**  $16 \times 45 \times 35$ cm



#### Pro-lect Essential II £210

Best turntable under £400, Awards 2015 ★★★★

A frill-free, entry-level product that gets all the basics spot-on. Easy to set up and even easier to enjoy, it's an obvious Award-winner. **Speed** 33.3 & 45rpm **Size (hwd)**  $14 \times 46 \times 36$ cm



#### Rega RP1 £225

Awards 2010 ★★★★

The unadorned RP1 is an impressive turntable in its own right, with a good sense of drive and pleasing transparency. **Speed** 33.3 & 45rpm **Size (hwd)**  $12 \times 45 \times 36$ cm



#### Clearaudio Concept £995

Best turntable £800+, Awards 2015 ★★★★

A thoroughly sorted, easy-to-own package with tremendous sound, combining punch, extension and tonal variation in equal measure. **Speed** 33.3, 45, 78rpm **Size (hwd)**  $14 \times 42 \times 35$ cm











# A level playing field

When setting up a turntable, you should make sure your support is perfectly level, low-resonance and positioned as far away from any source of vibration, including your speakers.

If you have a hard concrete floor, a floorstanding support will work fine. If not, we'd recommend investing in a dedicated wall shelf, not least because it avoids the issue of footfall that comes with a wooden floor. Make sure you use proper heavy-duty mounting screws and fixings when putting the shelf up, otherwise the consequences could be expensive.

AWARD WINNER

Once your support is in place, the next step is to set the deck up properly. Once again, everything should be level. Make sure that the stylus tip sits properly in the record groove. Use a small, light spirit level to check. Start with the plinth. If the support is already level, there shouldn't be much to do here. If, for any reason, you need to make adjustments, many turntables have adjustable feet to help in this matter.

Next, check the platter is level. On most decks the position of the platter is fixed relative to the plinth, but if it's not level, there's always those adjustable feet...



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# Up to £150

#### Pro-Ject 1 Xpression Carbon UKX £575

January 2015 ★★★★

The Pro-Ject 1 Xpression Carbon UKX is a terrific package for the price; it is balanced and insightful, rivalling the class-leaders in overall ability. **Speed** 33.3, 45rpm **Size (hwd)** 13 x 42 x 34cm



#### Rega Planar 3/Elys 2 £625

May 2016 \*\*\*\*

Rega builds on the 3's predecessor by adding extra servings of clarity, precision and insight. The result is the best RP3 yet.

**Speed** 33.3, 45, 78rpm **Size (hwd)** 12 x 45 x 36cm



#### Rega RP6/Exact £1000

December 2014 \*\*\*\*

The RP6's simple styling belies its engaging, detailed sound. One of the most expressive and enthusiastic turntables you can buy for the money. Speed 33.3, 45rpm Size (hwd) 12 x 45 x 36cm



#### Rega RP8/Apheta £2200

December 2014 \*\*\*\*

A terrific turntable that sets standards at the price. A detailed sound delivered with superb agility, strong dynamics and exceptional precision. **Speed** 33.3, 45rpm **Size (hwd)** 12 x 45 x 36cm



#### VPI Prime £3750

Best Temptation. Awards 2015 ★★★★

A confident-sounding package that can organise with the best and maintain composure even when faced with the most challenging music. **Speed** 33.3, 45rpm **Size (hwd)** 18 x 54 x 40cm



# WIRELESS SPEAKERS

FREE YOUR MUSIC WITH ONE OF THESE STREAMING WONDERS

#### Cambridge Audio Go £120

Awards 2014 ★★★★

Few wireless speakers offer such a great combination of build quality, battery life and enjoyable performance as this former Award-winner. Size (hwd) 24 x 12 x 6cm Battery Yes, up to 18 hrs playback



#### JBL Flip 3 £100

May 2016 \*\*\*\*

Correcting the missteps of the Flip 2, the Flip 3 boasts a smooth, warm sound as well as improved battery life and connectivity. Size (hwd) 6 x 17 x 6cm Battery Yes, up to 10 hrs playback



#### Ultimate Ears Boom 2 £120

February 2016 ★★★★★

UE has built on the success of the original Boom and produced a speaker that betters its predecessor in usability and performance. Size (hw) 18 x 7 x 7cm Battery Yes, up to 15 hrs playback



#### Ultimate Ears Roll £100

Best portable wireless speaker under £100, Awards 2015 ★★★★

Super-portable, waterproof and with great sound, the Roll is the ideal on-the-go companion. We haven't heard better for less than a ton. Size (hw) 4 x 14cm Battery Yes, up to 9 hrs playback





#### Audio Pro Addon T3 £165

Best portable wireless speaker £100-£200, 2015 ★★★★

This classy boombox from Audio Pro ignores gimmicks and focuses on delivering the best sound possible for an extremely tempting price. **Size (hwd)**  $12 \times 22 \times 14$  **Battery** Yes, up to 30 hrs (at half volume)



#### JBL Xtreme £250

November 2015 ★★★★

The Xtreme delivers all the power suggested by its brutish physique, but is also capable of great subtlety and insight. Powerful and portable. **Size (hwd)**  $13 \times 28 \times 12$ cm **Battery** Yes, up to 15 hrs playback



#### Monitor Audio Airstream S150 £150

Best mains-powered wireless speaker under £200, Awards 2015 ★★★★

The Airstream S150 boasts impressive clarity and detail with solid, weighty bass and an agile and dynamic delivery.

Size (hwd)  $27 \times 12 \times 14$ cm Battery No



PRODUCT OF THE YEAR



#### Sonos Play:1 £170

January 2014 ★★★★★

Well built, with solid bass response and great detail and clarity, the Play:1 offers much more than its price tag might suggest.

Size (hwd)  $16 \times 12 \times 12$ cm Battery: No



#### **Ultimate Ears Megaboom £250**

April 2015 ★★★★

Arguably the most polished performer in the UE range. Battery life and build quality are excellent: you're in for a musical treat.

Size (hw) 23 x 8cm Battery Yes, up to 20 hrs playback



#### Audio Pro Allroom Air One £400

August 2014 ★★★★

Winner of an Award in 2013, the Air One put the cat among the pigeons. It's still tough to argue with its rounded, entertaining sound.

Size (hwd) 20 x 31 x 19cm Battery No



#### Bluesound Pulse Mini £420

February 2016 ★★★★★

A great addition to Bluesound's family of wireless speakers, it packs the Pulse's impressive sound into a smaller, more affordable package.

Size (hwd) 17 x 16 x 34cm Battery No





Airplay



#### What source?

#### Bluetooth

Bluetooth is ubiquitous. You'll find it in a wide range of devices and it's easy to use, usually requiring no more than a few seconds to establish a connection. Standard Bluetooth sounds good, but if you value quality over convenience (why else would you be reading this?) look for devices that support aptX, a more advanced Bluetooth standard that can transmit higher-quality audio.

#### AirPlay

AirPlay is Apple's own way of streaming files wirelessly and works only with Apple products. Set-up can be fussy – Bluetooth is much easier in that respect – but you'll only have to do it once. If you're embedded in the Apple ecosystem, then AirPlay is particularly useful. Be mindful, though, because AirPlay is not as common on wireless speakers as Bluetooth. We tend to find the sound quality better on Bluetooth, too.

#### Wired

If you choose to forego wirelessness altogether, then you can connect a source such as a smartphone or tablet directly to the speaker. One advantage of this option is reliability. Wireless dropouts aren't frequent, but a wireless stream dropping in quality (or even dropping out altogether) is still a possibility.





#### Geneva Model S Wireless DAB+ £330



Best mains-powered wireless speaker £200-£600, Awards 2015  $\star \star \star \star \star$  A classy speaker with additional radio features, the Model S Wireless DAB+ offers clear, detailed, punchy sound with agility and precision. Size (hwd)  $15 \times 14 \times 18$ cm Battery No

#### KEF Muo £300



Best portable wireless speaker £200, Awards 2015 ★★★★

The Muo brings a touch of luxury with its detailed musical performance and great looks. You won't get better without going mains-powered. **Size (hwd)**  $8 \times 21 \times 6$ cm **Battery** Yes, up to 12 hrs playback



#### Q Acoustics Q-BT3 £350

June 2014 \*\*\*\*

Few products are as versatile as these for the price: wireless speakers, soundbar replacement, iPod dock or powered stereo speakers. **Size (hwd)**  $31 \times 19 \times 24$ cm **Battery** No



#### Ruark Audio MR1 £300

October 2015 ★★★★

The £50 wireless battery pack for the R1 radio will turn these Awardwinning desktop speakers into a tidy little wireless package. **Size (hwd)**  $17 \times 13 \times 14$ cm **Battery** No



#### Sonos Play: 5 £350

December 2015 ★★★★

Its rich bass response, great detail and crystal-clear mid-range make the Play: 5 a class leader as a wireless speaker or part of a multi-room set-up. **Size (hwd)**  $20 \times 36 \times 15$ cm **Battery** No



#### B&O BeoPlay A6 £800

February 2016 ★★★★

Oozing style and substance, the A6 effortlessly combines the simplicity and convenience of a one-box system. It's a job fully well done. **Size (hwd)**  $30 \times 54 \times 16$ cm **Battery** No



#### **B&W Zeppellin Wireless £500**

December 2015 ★★★★

Eight years on, the Zeppelin speaker is still a must-have for the audiophile who wants fine sound in a convenient package. Size (hwd)  $18 \times 66 \times 18$  cm Battery No



#### Geneva AeroSphère Large £650

AWARD

Best mains-powered wireless speaker £600-£800, Awards 2015  $\star$   $\star$   $\star$   $\star$  Not only is this bulbous beauty among the best-looking wireless speakers we've seen, it's high on the list of the best we've heard too.

Size (hwd)  $41 \times 41 \times 32$ cm Battery No



#### Naim Mu-So £895



Best mains-powered wireless speaker £800+, Awards 2015  $\star \star \star \star \star$ The Mu-so has a rich, powerful sound, a huge sense of scale and soaring dynamics – and it's now been updated to accommodate Tidal. Size (hwd)  $12 \times 63 \times 26$ cm Battery No



#### Naim Mu-so Qb £595

April 2016 ★★★★

Like the original Mu-so (see above), the Qb delivers a powerful sound and lots of features, but for a more affordable price.

**Size (hwd)** 21.8 x 21 x 21.2cm **Battery** No





# **HOME CINEMA**

# **BLU-RAY PLAYERS**

ENJOY HIGH-DEF MOVIE THRILLS

AWARD WINNER

AWARD WINNER

#### Panasonic DMP-BDT170 £90

August 2015 \*\*\*\*

Picture quality is what counts. It might be short on catch-up services but the arresting colours, strong contrast and good upscaling make up for that. Compatibility Blu-ray, DVD, CD



#### Sony BDP-S4500 £75

August 2015 ★★★★

Nothing's perfect in this life, but the BDP-S4500 comes pretty close. Delivering on every count, it's a positive steal at this price. Compatibility Blu-ray, DVD, CD



#### Panasonic DMP-BDT370 £100

Best Blu-ray player under £150. Awards 2015 ★★★★

A bright, sharp picture, weighty sound and 4K upscaling, all for just £100. Enough to award this player our 2015 Blu-ray Product of the Year. Compatibility Blu-ray, DVD, CD



#### Sony BDP-S5500 £110

July 2015 ★★★★

A tiny player that goes big on performance. Features and design are strong too – and there's a dedicated Netflix button on the remote. Compatibility Blu-ray, DVD, CD



#### Sonv BDP-S7200 £180

Best Blu-ray player £150-£300, Awards 2015 ★★★★

The pictures here are impressive, but it's with sound quality that this model's star shines brightest – it's entertaining, exciting and musical. Compatibility Blu-ray, DVD, CD, SACD



#### Pioneer BDP-LX58 £600

April 2015 \*\*\*\*

Rivals offer more smart content, but if that's not an issue you'll be wowed by the jaw-dropping movie experience from this 4K-upscaler. Compatibility Blu-ray, DVD, CD, SACD



#### Panasonic DMP-UB900 £600

May 2016 \*\*\*\*

The first 4K Blu-ray player is a stunner. Lush colours and strong contrast are allied with great defintion. The future of home cinema has arrived. Compatibility Blu-ray, DVD, CD



#### Cambridge Audio CXU £1000

Best Blu-ray player £300+, Awards 2015 ★★★★

A universal disc-player, packed with features and connections, that pushes the boundaries with both picture and sound quality. Compatibility Blu-ray, DVD, CD, SACD









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Manchester 54 Bridge Street 0161 835 1156

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E500 to £1000

#### Oppo BDP-105D £1100

March 2015 \*\*\*\*

£1100 is a lot for a disc player, but if you want a quality component that's as adept with music as it is with movies, you'll want this. Top class. Compatibility Blu-ray, DVD, CD, SACD



# HOME CINEMA AMPLIFIERS

STUNNING SOUND THAT TRULY BRINGS MOVIES TO LIFE

#### Sony STR-DN860 £400

September 2015 ★★★★

Sony proves the value of performance over the latest mod cons. No Dolby Atmos, but a thoroughly authoritative and engaging sound.

Power 7 x 95W Dolby Atmos No HDMI in/out 5/1



#### Yamaha RX-V379 £300

Best home cinema amplifier under £350, Awards 2015 ★★★★

This entry-level amp is a great way to start in home cinema. Champion under £350 at the Awards, it offers a scale of sound belying its price.

Power 5 x 70W Dolby Atmos No HDMI in/out 4/1



#### Denon AVR-X2200W £500

Best home cinema amplifier £350-£700. Awards 2015 ★★★★

Our AV amp Product of the Year is an articulate and detailed amp, with stacks of functionality and future-proofing. Packed with features. Power 7 x 95W Dolby Atmos Yes HDMI in/out 8/2



#### Yamaha RX-A850 £900

Best home cinema amplifier £700-£1000, Awards 2015 ★★★★

In the sweet spot of balancing price, features and performance, this has a hugely entertaining combination of power and precision.

Power 7 x 100W Dolby Atmos Yes HDMI in/out 8/2



#### Yamaha RX-V679 £600

October 2015 \*\*\*

No Dolby Atmos but Yamaha does offer a big, spacious sound with decent detail and balance, though some others are more nuanced.

Power 7 x 90W Dolby Atmos No HDMI in/out 6/1



#### Onkyo TX-NR3030 £2500

June 2015 ★★★★

Looking for high-end, high-quality surround audio? This amp delivers with a spacious, subtle sound, a plethora of features and Dolby Atmos.

Power 11 x 185W Dolby Atmos Yes HDMI in/out 8/3



#### Pioneer SC-LX59 £1400

Best home cinema amplifier £1000+, Awards 2015 ★★★★

The SC-LX59 makes it six £1000+ Awards in a row for Pioneer. This latest offering is better than ever, making it a class-leading receiver.

Power 9 x 140W Dolby Atmos Yes HDMI in/out 8/3





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AWARD WINNER

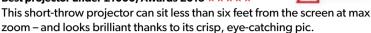
PRODUCT OF THE YEAR

# **PROJECTORS**

#### BECAUSE A MASSIVE PICTURE IS HOME CINEMA

#### BenQ W1080ST+ £850

Best projector under £1000, Awards 2015 ★★★★



AWARD WINNER

PRODUCT OF THE YEAR

> AWARD WINNER

Throw ratio 0.69-0.83:1 Inputs 2 x HDMI, component Speakers Yes



#### **Epson EH-TW6600 £1400**

April 2015 \*\*\*\*

If you aren't bothered about wireless connectivity, you'll be thrilled by its bold, rich colours, sharp lines and hugely impressive contrast.

Throw ratio 1.32-2.15:1 Inputs 2 x HDMI, PC, component Speakers Yes



#### **Epson EH-TW7200 £1900**

Best projector £1000-£2000, Awards 2015 ★★★★

Versatile and easy to set up, this one raises the bar for picture quality in the sub-£2000 arena with its realistic, subtle and punchy performance.

Throw ratio 1.34-2.87:1 Inputs 2 x HDMI, component Speakers No



#### **Sony VPL-VW520ES £8800**

April 2016 \*\*\*\*

With one eye on the future, this feature-laden, 4K and HDR projector performs superbly – if you can afford it.

Throw ratio n/a Inputs HDMI, LAN Speakers No



# **SET-TOP BOXES**

THE BEST WAY TO ACCESS THE WORLD OF TELEVISION

#### **Humax DTR-T2000 £180**

Best PVR, Awards 2015 ★★★★★

This YouView recorder is still one of the best ways to handle live TV. Its 500GB is a decent amount of space, but it's now available with 1TB too.

Tuners 2 Storage 500GB Ultra HD No



#### **Humax FVP-4000T £200**

March 2016 ★★★★

 ${\sf Catch-up\ TV\ is\ made\ supremely\ easy\ with\ this\ Freeview\ Play\ box.}$ 

It's a comprehensive entertainment hub with minimum fuss.

Tuners 3 Storage 500GB, 1TB Ultra HD No



### Humax HDR-1100S £190 (500GB), £220 (1TB),

£270 (2TB) December 2015 \*\*\*\*

Now with wi-fi, this impressive Freesat recorder is a genuine wireless entertainment hub. It's our top subscription-free choice.

Tuners 2 Storage 500GB, 1TB, 2TB Ultra HD No



#### BT Ultra HD YouView min £15/month + fees

November 2015 ★★★★☆

The first 4K box to hit the market, this is the most accomplished live TV you can watch. Content is a little limited right now – so sports fans only. **Tuners** 2 **Storage** 1TB **Ultra HD** Yes





### Sky+HD 2TB free or £250

Best subscription service, Awards 2015 ★★★★



**Tuners 2 Storage 2TB Ultra HD** No



## **SOUNDBARS**

AN IMPRESSIVE WAY TO IMPROVE YOUR TV'S SOUND

#### Philips HTL5140 £270

December 2014 \*\*\*\*

Insightful, balanced and unobtrusive, this slimline package will suit almost any set-up. Comfortably deserving of its five-star status. Size 5 x 104 x 7cm Inputs Coax, optical, USB, analogue Sub Yes



#### Q Acoustics Media 4 £330

Best soundbar under £500, Awards 2015 \*\*\*\*

Q Acoustics' debut soundbar is remarkable value - even more so at its reduced price – and more than worthy of its two-time PoY status. Size (hwd) 9 x 100 x 14cm Inputs Optical, RCA Subwoofer No

PRODUCT OF THE YEAR

AWARD WINNER

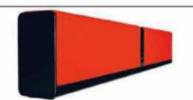
AWARD WINNER



#### Dali Kubik One £800

Best soundbar £500+, Awards 2015 \*\*\*\*

A gorgeous and complete package, Dali's debut soundbar impresses with its hugely engaging sound and smart, well-equipped exterior. Size (hwd) 15 x 98 x 10cm Inputs Optical, 2 x RCA Subwoofer No



#### Philips Fidelio B5 £600

December 2015 ★★★★

Thanks to two detachable (wireless, battery-powered) speakers, it can add surround sound or be a multi-room system. Great sound, too. Size 7 x 104 x 16cm Inputs 2 x HDMI, optical, coax, RCA Sub Yes



#### Sonos Playbar £600

January 2015 ★★★★

Better TV sound is one thing, but this is Sonos in a soundbar – so you can stream music from a NAS, laptop or smartphone or access internet radio. Size (hwd) 9 x 90 x 14cm Inputs Optical Subwoofer Optional



# **SOUNDBASES**

AN ALTERNATIVE SOURCE OF SUPERIOR TV SOUND

#### Cambridge Audio TV5 £250

June 2015 ★★★★

The TV5 shares its TV2 sibling's rich presentation, but with an extra driver and bigger chassis there's better detail, clarity and dynamics. Size (hwd) 10 x 73 x 34cm Inputs Optical



#### Canton DM55 £330

Best soundbase under £400, Awards 2015 ★★★★

Replacing the DM50, the £70 cheaper DM55 is even more appealing - its meaty yet subtle sound is a huge audio upgrade for your TV. Size (hwd) 7 x 55 x 30cm Inputs Optical, coaxial



#### Geneva Model Cinema £550

lune 2015 \*\*\*\*



AWARD WINNER

AWARD WINNER

This premium soundbase has a big, balanced and authoritative sound, with detail and dynamic insight in spades. It's worth the extra spend. Size (hwd) 10 x 70 x 35cm Inputs Optical, coaxial



#### Philips Fidelio XS1 £500

April 2016 ★★★★☆

If you're willing to trade a little audio quality for features, connections and streamlined looks, the XS1 should be on your shortlist. Size (hwd) 73 x 4 x 33cm Inputs coaxial, digital, HDMI 1.4, HDMI, RCA



## SPEAKER PACKAGES

GOOD SURROUND SOUND IS A MOVIF-MAGIC MUST

#### Q Acoustics Q7000i £900

November 2013 ★★★★

Got £900 to spend on a sub/sat package? Spend it here. This compact set creates a cohesive and expansive soundfield, with strong bass. Size (hwd) Centre speaker 12 x 20 x 16cm Finishes 2



#### **Tannoy HTS-101 XP £600**

Best style package under £1000, Awards 2015 ★★★★

The latest incarnation of a multiple winner has a sonic character that retains its fast, spacious quality, but with extra detail and solidity. Size (hwd) Centre speaker 19 x 10 x 11cm Finishes 1



#### **B&W MT-50 £1100**

Best style package £1000+, Awards 2015 ★★★★

These speakers sound crisp, clear and insightful, and the sub and satellites integrate so well. Value and versatility combined. Size (hwd) Centre speaker 25 x 11 x 16cm Finishes 2



#### **B&W MT-60D £1950**

May 2012 \*\*\*\*

Compact and stylish (we love that sub), this package presents a dynamic, powerful sound that excels with surround sound and stereo music. Size (hwd) Centre speaker 25 x 11 x 16cm Finishes 2



#### **Dali Zensor 1 5.1 £980**

Best traditional package under £1000, Awards 2015 ★★★★

Why did it win an Award? Because of the sound's punchy dynamics, abundance of detail, expression, articulation and impressive integration. Size (hwd) Centre speaker 16 x 44 x 29cm Finishes 3



#### Q Acoustics 3000 Series 5.1 £700

July 2015 ★★★★

A budget package that makes the sound from films come across as subtle, atmospheric and detailed. This is a fun listening experience. Size (hwd) Centre speaker 15 x 43 x 20cm Finishes 5



"Continues the Q Acoustics' tradition of punching way above its weight"

#### Wharfedale Diamond 220 HCP £850

July 2015 ★★★★

Featuring one of our favourite standmounters, this package offers an excellent surround-sound experience for a reasonable price. Size (hwd) Centre speaker 17 x 47 x 27cm Finishes 7



"Watching Birdman we are so immersed it is easy to imagine we are backstage in a Manhattan theatre'

# Up to £50

# E50 to £150

#### Monitor Audio Bronze B5 AV £1500



Best traditional package £1000-£2000, Awards 2015 ★★★★

Our Speaker Package Product of the Year is beautifully designed, has ample punch, creates a spacious soundfield and is very musical.

Size (hwd) Centre speaker 17 x 46 x 19cm Finishes 4



"This may be the easiest £1500 you'll ever spend"

#### **B&W 683 S2 Theatre £2750**

November 2014 ★★★★☆

We'd like a bit more authority in the bass, but we're still delighted by the detailed, agile sound, focused surround steering and power on offer. **Size (hwd)** Centre speaker  $22 \times 59 \times 30$ cm **Finishes** 2



"It packs a good deal of punch and a pleasing sense of scale"

#### Dali Ikon 5 Mk2 £2500

lune 2014 \*\*\*\*

Not much else at this price is as thrilling, forceful or cohesive as this. It's clear and detailed too, even if the subwoofer seems a touch lethargic. **Size (hwd)** Centre speaker  $15 \times 57 \times 26$ cm **Finishes** 2



"There aren't many speaker packafes as exciting as this one. It will transform your movies and music"

#### KEF R100 5.1 £2850

Best traditional package £2000+, Awards 2015 ★★★★

Gorgeous looks and superior sound quality – the R100 5.1 has both. There's great scale, seamless integration, and an expressive midrange. **Size (hwd)** Centre speaker 17 x 53 x 31cm **Finishes** 4



"No doubt worth every penny of its asking price"

#### Monitor Audio Silver 6 AV12 £2875

June 2014 ★★★★

With terrific build and finish, and a fine degree of insight and precision in the sound, these speakers work together seamlessly. A top-notch package **Size (hwd)** Centre speaker  $19 \times 50 \times 24$ cm **Finishes** 6



"The complete Monitor Audio Silver package is a deeply impressive performer"

# **VIDEO STREAMERS**

DON'T RESTRICT STREAMING TO A LAPTOP - GET IT ON THE TELLY

#### Google Chromecast 2 £30

December 2015 ★★★★

The second-gen Chromecast still 'casts' content from a device to a TV over wi-fi, but now with speedier operation and a performance boost. **Resolution** 1080p, 720p **Storage** No **Ultra HD** No



#### Now TV (2015) £15

February 2016 \*\*\*\*

Now it outputs 1080p and passes through 7.1 surround sound, NOW TV is a great way to open your doors to a plethora of Sky content. **Resolution** 1080p, 720p **Storage** n/a **Ultra HD** No



#### Amazon Fire TV (2015) £80

Best streaming box, Awards 2015 ★★★★

An improvement on the first Fire TV. For the same money you get 4K streaming, greater speed and power, and expanded storage options. **Resolution** Ultra HD, 1080p, 720p **Storage** 8GB **Ultra HD** Yes



#### Roku 3 £100

March 2015 ★★★★

Super-slick operational speeds and a plethora of content make Roku's latest entry to its established streaming catalogue the best we've seen. **Resolution** 1080p, 720p **Storage** opt. 2GB microSD **Ultra HD** No



#### PlayStation 4 (500GB) £300

February 2014 ★★★★☆

With stacks of smart music and movie apps plus solid performance, Sony's latest is a must-have for gamers and entertainment-seekers alike. **Resolution** 1080p, 720p **Storage** 500GB, 1TB **Ultra HD** No



#### Xbox One (500GB) £300

January 2014 ★★★★☆

This hugely ambitious console isn't without imperfections, and it might need time to realise its potential. For now it's a very good games console. **Resolution** 1080p, 1080i, 720p **Storage** 500GB, 1TB **Ultra HD** No

# **TELEVISIONS**

MAKE THE FOCUS OF YOUR ENTERTAINMENT HUB A GOOD ONE

#### Samsung UE32|6300 £380

March 2016 ★★★★

It expertly ticks all the boxes you'd expect from a Full HD TV. The only issue is the availability of larger rivals at the same price.

Type LCD/LED HDMI 4 Resolution Full HD Tuner Freeview HD



#### Panasonic TX-40CS520 £380

Best 40-46in TV under £500, Awards 2015 ★★★★

This is a great deal. It might not be flashy (there's no 3D or 4K) but it's packed full of features and its picture quality is best-in-class.

Type LCD/LED HDMI 2 Resolution Full HD Tuner Freeview HD



#### Panasonic TX-40CX680B £700

August 2015 ★★★★

This good-looking telly is a great advert for smaller-screen 4K, offering a fine picture and a good stack of features with it. £700 well spent.

Type LCD/LED HDMI 3 Resolution Ultra HD Tuner Freeview HD



#### **Samsung UE40JU7000 £880**

Best 40-46in TV £500+, Awards 2015 \*\*\*\*

AWARD WINNER

AWARD WINNER

You don't need a huge screen to appreciate the benefits of a 4K pic. This sleek 40in set combines features, functionality and performance.

Type LCD/LED HDMI 4 Resolution Ultra HD Tuner Freev'w/Freesat HD







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Linn . Arcam . Naim . Bowers & Wilkins . Rega . Spendor . Rotel . Classé . Grado and more..

#### Samsung UE48|6300 £650

Best 47-52in TV under £1000, Awards 2015 ★★★★





#### **Samsung UE48JU7000 £1250**

Best 47-52in TV £1000+, Awards 2015 \*\*\*\*

This Samsung is special: super-sharp 4K, realistic textures, a smart interface, and a slim, attractive physique. Impressive.

Type LCD/LED HDMI 4 Resolution Ultra HD Tuner Freev'w/Freesat HD



#### Panasonic TX-50CS520 £500

October 2015 \*\*\*\*

This Full HD TV presents a stunning picture, but the sound is good too. Add a fine interface and that £500 price becomes an act of generosity. **Type** LCD/LED **HDMI** 2 **Resolution** Full HD **Tuner** Freeview HD



#### Panasonic TX-50CX802B £1800

September 2015 ★★★★

This is an impressive 4K screen, but it also renders Full HD content with particular flair, with great upscaling being the real talent here.

Type LCD/LED HDMI 3 Resolution Ultra HD Tuner Freev'w/Freesat HD



#### LG 55EG960V £3800

Best 52-60in TV £2500+, Awards 2015 ★★★★

Top-drawer 4K Ultra HD resolution meets OLED technology, and the results are simply stunning. The price seems to be slipping too...

Type OLED HDMI 3 Resolution Ultra HD Tuner Freeview HD



#### Sony KD-55XD9305 £2000

June 2016 ★★★★★

The presence of HDR significantly improves the image on this set, offering a level of subtlety that leaves others trailing in its wake. **Type** LCD/LED **HDMI** 4 **Resolution** Ultra HD **Tuner** Freeview HD



#### LG 65EF950V £4000

January 2016 ★★★★★

One of the very best TVs on the market, this LG is a lovely looking telly with a fantastic picture. Whisper it, but OLED is becoming accessible. **Type** OLED **HDMI** 3 **Resolution** Ultra HD **Tuner** Freeview HD



#### Panasonic TX-65DX902B £3200

June 2016 ★★★★

NEW ENTRY

PRODUCT
OF THE YEAR

AWARD WINNER

With its lovely contrast and lush colours, this set offers stunning all-round performance. If you're after a great big 4K/HDR TV, have a look at this. **Type** LCD/LED **HDMI** 4 **Resolution** Ultra HD **Tuner** Freev'w/Freesat HD



#### Samsung UE65|S8500 £3000

Best 60in+TV, Awards 2015 ★★★★

This curved set combines excellent smarts with a gorgeous, insightful picture. If a big screen and 4K are must-haves, your search is over.

Type LCD/LED HDMI 4 Resolution Ultra HD Tuner Freev'w/Freesat HD



### Sony KD-75X9405C £6000

January 2016 ★★★★★

A great, and very big telly, its stunning picture (and brilliant sound) is everything you would expect from a flagship television.

Type LCD/LED HDMI 4 Resolution Ultra HD Tuner Freeview HD





# **PORTABLE**

PRODUCT OF THE YEAR

# **HEADPHONES**

BIN THE BUNDLED BUDS, AND INVEST IN BETTER SOUND

#### SoundMagic E10S £40

Best in-ears under £50. Awards 2015 \*\*\*\*

Paying £40 for a pair of buds like these ranks as one of the simplest, most affordable and most satisfying upgrades available.

In-line controls Yes Cable length 1.2m



#### Sennheiser Momentum M2 IEi £90

Best in-ears £50-£100, Awards 2015 \*\*\*\*

You wouldn't think anything so small could sound so good - not for just £90. But good they sound, wonderfully smooth, expressive and balanced. In-line controls Yes Cable length 1.3m

#### Sony MDR-EX650AP £60

November 2014 \*\*\*

These smart buds are nicely judged tonally, with plenty of detail. Add an expansive soundstage and you're looking at great value for money. In-line controls Yes Cable length 1.2m



#### Focal Sphear £100

November 2015 ★★★★

These Focals back that a classy design with a full-bodied, detailed sound that's seriously engaging. They are a comfortable fit, too. In-line controls: Yes Cable length 1.2m



#### Klipsch X11i £200

As comfortable in your ear as a cotton bud, the X11is deliver great sound too - exciting yet smooth and insightful. Highly recommended.



#### November 2014 ★★★★★

In-line controls Yes Cable length 1.3m



#### Shure SE425 £200

Best in-ears £100-£300, Awards 2015 ★★★★

If you're serious about the quality of your in-ear headphones, we'd point you here. The energetic, immersive performance is irresistible. In-line controls Yes Cable length 1.6m



#### Sennheiser IE 800 £600

Best in-ears £300+, Awards 2015 ★★★★

You might think it a waste to spend £600 on buds, but don't make up your mind till you've heard these - they're astonishing performers. In-line controls Yes Cable length 1.1m



#### **Shure SE846 £950**

June 2014 \*\*\*\*

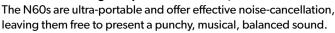
Stunning detail, supreme tonal balance and extraordinary dynamics. You just need to ensure you use an equally talented source In-line controls Yes Cable length 1.2m & 1.6m



On-ears up to £100

#### **AKG N60 NC £230**

Best noise-cancelling headphones under £250, Awards 2015 ★★★★



**Quoted battery life 30 hours** 



#### Bose QuietComfort 25 £270

April 2015 \*\*\*\*

These cans are a real treat. Their noise-cancelling capabilities are extraordinary, their clear, balanced sound a joy to hear.

**Quoted battery life 35 hours** 



#### **PSB M4U2 £250**

April 2015 \*\*\*\*

As well as obliging with a powerful delivery the PSBs offer a choice of listening modes (passive, active and noise-cancelling), to suit.

Quoted battery life 55 hours



#### AKG K451 £50

October 2012 ★★★★

Great agility and precision timing combined with excellent build and compact size, makes the K451s a must-audition pair of cans.

Type Closed Connection 3.5mm Weight 120g



#### AKG Y50 £50

Best portable on-ears under £100. Awards 2015 \*\*\*\*

Our Product of the Year cans for 2015 are portable on-ears, and deliver a rhythmic, clear, detailed, dynamic sound. At this price they're amazing.



#### AKG K550 £100

Best home on-ears under £150, Awards 2015 ★★★★

These on-ears, relatively light and very comfy, are communicative too, natural and unforced. And they deliver bass with punch and precision.

Type Closed Connection 3.5mm/6.3mm Weight 305g



AWARD WINNER

#### Bang & Olufsen BeoPlay H2 £170

May 2015 \*\*\*\*

Not only do these headphones look great, they also do a fine job of music reproduction – and offer great pride of ownership.

Type Closed Connection 3.5mm Weight 155g



#### **Grado SR125e £150**

December 2014 ★★★★

These might have looked at home on the ears of a wartime radio operator, but they sound great. Stay at home, though: they're leaky.



#### Philips Fidelio M1MkII £135

May 2015 ★★★★

The Fidelios offer an unusually smooth delivery and plenty of weighty, punchy bass. Clarity and precision are further strong points.

Type Closed Connection 3.5mm Weight 166g



### Beyerdynamic T51i £245

Awards 2014 ★★★★

It's satisfying when great design, premium build and top performance all come together. These on-ears really do sound as good as they look.

Type Closed Connection 3.5mm/6.3mm Weight 174g



#### **B&W P5 Series 2 £250**

February 2014 ★★★★

Clear, precise sound, bags of detail, punchy rhythm – these gorgeous 'phones have the lot. We can't think of anything to say against them.

Type Closed Connection 3.5mm Weight 195a



#### Grado SR325e £270

Best home on-ears £150-£300, Awards 2015 ★★★★

If you don't mind the sound that leaks from them, you're free to enjoy the fluid dynamics and wonderfully musical presentation.

Type Open Connection 3.5mm/6.5mm Weight 330g



#### Philips Fidelio X2 £230

October 2015 \*\*\*\*

The X2s have a smooth, neutral sound, great rhythm and punchy bass. Superior design helps make them supremely comfortable too.

Type Open Connection 3.5mm Weight 380a



#### Sennheiser Momentum 2.0 £270

Best portable on-ears £200-£300, Awards 2015 ★★★★

We love the design but it's more than just pretty – the Momentums 2.0s are comfortable on your ears and fold neatly off them.

Type Closed Connection 3.5mm Weight 240g



#### **B&W P7 £330**

September 2014 \*\*\*\*

Worth every penny. The solid build quality and comfy fit we expect, but the level of detail and dynamics swept us off our feet.

Type Closed Connection 3.5mm Weight 290g



#### Shure SRH1540 £400

Best home on-ears £300+, Awards 2015 ★★★★

Once the music starts you'll focus on the expansive, beautifully balanced sound. There's agility, enthusiasm and genuine musicality too.

Type Closed Connection 3.5mm Weight 286g



AWARD WINNER

#### AKG K812 £1100

October 2014 \*\*\*\*

For outright insight you'd have to spend thousands more than this on speakers before you get close to the resolution and agility on offer here.

Type Open Connection 3.5mm/6.3mm Weight 390g



#### Sennheiser HD800S £1200

June 2016 \*\*\*\*

If the price invites doubts, rest assured the performance is absolutely worth it provided your source and amplification are up to the job.

Type Open Connection 6.3mm Weight 330g



#### AKG Y50BT £150

Best wireless headphone under £250, Awards 2015 ★★★★

By wireless standards, they're excellent. Clarity and insight are particular strong points, but it's also a great design.

Folding Yes Quoted battery life 20hrs+ Wireless range n/a



#### Philips Fidelio M2BT £185

Janaury 2015 ★★★★

Bluetooth here is the superior aptX version. There's also NFC connectivity and – most important – a rich, balanced, musical sound.

Folding No Quoted battery life 10hrs Wireless range 15m



#### **B&W P5 Wireless £330**

Best wireless headphones £250+, Awards 2015 ★★★★

All the characteristics of the P5 Series 2 without the wire. The Bluetooth connection works well and the sound is nigh-on as good as the Series 2.

Folding Yes Quoted battery life 17hrs Wireless range n/a



## Sennheiser Momentum 2.0 Wireless £380

Best noise-cancelling headphones £250+, Awards 2015 5 \*\*\*

Take the Momentum 2.0, add aptX Bluetooth and active noise cancellation and – *voilà*. Very desirable.

Folding No Quoted battery life 22hrs Wireless range 10m



### PORTABLE MUSIC PLAYERS

TREAT YOUR TUNES TO A DEDICATED MUSIC PLAYER

#### Apple iPod Touch (6th Gen) 128GB £330

December 2015 ★★★★

There's life in the iPod Touch yet. Its price and talent with CD-quality music makes it a worthy challenge to pricier rivals with hi-res audio. **Hi-res compatible** No **Weight** 88g **Storage**128GB

"There's still life in the iPod Touch yet"

#### Sony NW-AH25N £240

February 2016 ★★★★☆

Likable and affordable, the AH25N boasts plenty of features and, although the ergonomics could be better, it produces a good sound. **Hi-res compatible** Yes **Weight** 66q **Storage** 16GB



"Stays composed as the music becomes complex and never sounds edgy or harsh"

#### Astell & Kern Ak Jr £400

Best portable music player, Awards 2015 ★★★★

Our favourite portable unit of 2015, this hi-res player isn't cheap, but its build quality and performance make it a formidable, portable pleasure. **Hi-res compatible** Yes **Weight** 93q **Storage** 64GB



"Makes the case for high-res audio in unequivocal style"

#### Pioneer XDP-100R £500

February 2016 ★★★★☆

A player that ticks all the boxes on the hi-res checklist thanks to its excellent compatibility, massive storage and balanced sound. **Hi-res compatible** Yes **Weight** 181g **Storage** up to 432GB



"Gives an impression of refined detail, an even balance and a full-bodied, solid sound"

#### Sony NW-ZX100HN £500

April 2016 ★★★★☆

While it's too polite in terms of presentation, this likeable player hits the sweet spot for design, performance and price.

Hi-res compatible Yes Weight 145g Storage 32GB



"An affordable player with a touch of premium quality"

#### Acoustic Research M2 £900

lune 2014 ★★★★☆

There are niggles with the interface and design, but this is one of the best-sounding players we've heard. You really need to listen to the M2. **Hi-res compatible** Yes **Weight** 245g **Storage** 64GB



"Piles on the punch and power without missing a step"

#### Astell & Kern AK100 MkII £700

April 2014 ★★★★☆

This middle-of-the-range hi-res player's fluid, dynamic and detailed sound and extensive file compatibility far outweigh the sluggish interface. **Hi-res compatible** Yes **Weight** 170g **Storage** 32GB



"One of the best-sounding portable high-res music players"

#### Sony NW-ZX2 £950

September 2015 ★★★★☆

This second-gen hi-res Walkman is impressive. If you're an audio enthusiast who takes music seriously you should take a closer look.

Hi-res compatible Yes Weight 235g Storage 128GB



"It's a master at picking out the detail

# and nuance in music"

# **SMARTPHONES**

SUPERB MUSIC AND VIDEO PLAYERS THAT MAKE PHONE CALLS TOO

#### Apple iPhone 6S

Best smartphone under 5in, Awards 2015 ★★★★

The iPhone 6s packs class-leading audio and video performances, a faster processor, better camera and the intuitive 3D Touch feature. **OS** iOS **Size (hwd)** 138 x 67 x 7mm **Storage** 16/64/128GB



"As you'd expect from Apple, it all works perfectly"

#### **Apple iPhone 6S Plus**

January 2016 ★★★★

The best big screen iPhone yet, we heartily recommend this if you have deep pockets and are looking for a fantastic multimedia device. **OS** iOS **Size (hwd)**  $158 \times 78 \times 7mm$  **Storage** 16/64/128GB



"A confident performer and a desirable phone in its own right"

#### LG G5 (with Hi-Fi Plus DAC)

luly 2016 \*\*\*\*

LG combines innovation and performance to produce a phone that's up there with the best. The modular components are a brilliant idea. OS Android Size (hwd) 149 x 74 x 8mm Storage 32GB & microSD



"LG G5 with Hi-Fi Plus by B&O Play may be a mouthful, but it is the complete package"

#### Samsung Galaxy S6 Edge

June 2015 ★★★★

There's little more than its curved screen to separate the S6 Edge from the regular S6, but it's the very screen that makes it so desirable. OS Android Size (hwd) 149 x 76 x 10mm - Storage 32/64GB



"The S6 Edge is something you have to pick up and feel to really appreciate"

#### Samsung Galaxy S6 Edge+

Best smartphone above 5in, Awards 2015 \*\*\*\*

It's pricey, but with a performance this good and a design this gorgeous, we'd pay it. It's our favourite big screen phone. **OS** Android **Size (hwd)** 154 x76 x7mm **Storage** 32/64/128GB



PRODUCT OF THE YEAR



"There's no doubt that this is the big-screen phone to opt for right now"

#### Samsung Galaxy S7

July 2016 ★★★★

A lesson in how to make a great phone even better. With microSD support, a superb screen and good design, there's little to moan about. OS Android Size (hwd) 142 x 70 x 8mm Storage 32GB & microSD



"Samsung's made careful tweaks to an already great phone, making it one of the best you can buy"

#### Sony Xperia Z5

March 2016 ★★★★☆

We expected more in the way of innovation but, nevertheless, the Z5 is an admirable achievement that has improved sound and fast operation. OS Android Size (hwd) 146 x72 x7.3mm Storage 32GB & microSD



"A phone that offers some really good flagship-like features"

# FOR A FULL LIST OF SPECIFICATIONS AND OTHER USEFUL INFO VISIT WHATHIFI.COM

# STREAMING APPS & SERVICES

THE BEST WAY TO GET YOUR STREAMING FIX

#### **BBC iPlayer Free**

Best video-on-demand service, Awards 2015 ★★★★

Quality content, a great interface and free (for catch-up TV), BBC's iPlayer is one of, if not the best, video on-demand platforms out there.

Resolution up to 1080p Offline playback Yes



PRODUCT OF THE YEAR

#### **Google Play Movies & TV Variable**

lune 2014 \*\*\*\*

Google's venture into video streaming is a success, offering pretty much everything we could ask for from an on-demand video service.

Resolution Up to 1080p Offline playback Yes



#### **7digital Variable**

January 2016 \*\*\*\*

A download site that features competitive pricing, a strong catalogue and that's easy to use, this is one of the best music-dowload sites around. **Resolution** Up to 24-bit/192kHz **Offline playback** Yes



#### Qobuz Sublime £220/pa

May 2016 ★★★★★

Qobuz Sublime is, well, sublime. Easy to use, with a diverse catalogue and competitive prices, this is a service that packs in a lot of value. **Sound quality** Up to 24-bit/192kHz **Offline playback** Yes



#### **Technics Tracks Variable**

January 2016 ★★★★

Offering a (very) similar experience to 7Digital, the Technics site focuses on hi-res music, which is what gives it the edge over its competition.

on hi-res music, which is what gives it the edge over its Resolution Up to 24-bit/192kHz Offline Playback Yes



#### Amazon Prime Instant Video £6/month

June 2014 ★★★★☆

A very good video subscription service, its strengths lie in its strong film library, offline playback and its near-ubiquity among devices. **Resolution** Up to Ultra HD **Offline playback** Yes



#### Netflix £6 SD, £7.50 HD, £9 Ultra HD

Best video subscription service, Awards 2015 ★★★★

Without doubt one of the most satisfying streaming services runs on practically every platform available, even on your Ultra HD television. **Resolution** Up to Ultra HD **Offline Playback** No



#### Now TV from £7/month

June 2014 ★★★★☆

Essentially a Sky service without the subscription, Now TV is a great way of getting the latest content without paying through the nose for it. **Resolution** Up to 1080p **Offline playback** No



### **Apple Music £10/month**

September 2015 ★★★★

This long-awaited service from Apple has intelligent curation, a huge catalogue, good sound quality and an engaging live radio station. **Sound quality** Up to 256kbps AAC **Offline playback** Yes



#### **Spotify from free**

July 2015 \*\*\*\*

The service that led the streaming revolution, its accessibility, ease of use and content are reasons Spotify remains at the top of the pile. Sound quality Up to 320kbps Ogg Vorbis Offline playback Yes



#### Tidal from £10/month

Best music streaming service, Awards 2015 ★★★★

One of the few streaming services to offer lossless audio, Tidal's exclusive content and curated playlists make it stand out.

Sound quality Up to 1411kbps lossless Offline playback Yes



# **TABLETS**

TOUCHSCREEN HEAVEN, WITH LAPTOP SMARTS

#### Apple iPad mini 4 from £320

Best tablet under 8in, Awards 2015 ★★★★

Apple's best small tablet yet? A superb screen, great user experience, punchy audio and fine apps make this the best small-screen tablet. **OS** iOS **Size (hwd)** 203 x 135 x 6mm **Storage** 16/64/128GB



#### Apple iPad Air 2 from £400

Best tablet 8in+, Awards 2015 ★★★★

The iPad Air 2 ticks all the boxes. Best-b ar-none video and audio. an unrivalled user experience, snappy in use and a gorgeous design. **OS** iOS **Size (hwd)** 240 x 170 x 6mm **Storage** 16/64/128GB



#### Apple iPad Pro from £680

February 2016 ★★★★★

A sharp screen and fine audio performance make the Pro a superb proposition for big-screen lovers. In this case, bigger definitely is better. **OS** iOS **Size (hwd)** 306 x 220 x 7mm **Storage** 32/128GB



#### Sony Xperia Z4 tablet £500

Reviewed online ★★★★

An excellent screen, superb sound and lovely features. The Z4 is a great option for Android fans and, at last, a real competitor for the iPad. OS Android Size (hwd) 254 x 167 x 6mm Storage 32GB (expandable)



# Bite-size programmes to enjoy on your tablet



#### Unbreakable Kimmy Schmidt (Netflix)

A sort of successor to Tina Fey's 30 Rock, the jokes come thick and fast in this Netflix Original comedy. Not all the gags hit but when they do, they're clever, insightful and utterly bonkers. Series two is now streaming on the service.



AWARD WINNER

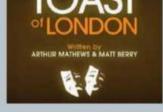
#### The New Yorker Presents (Amazon Prime)

Arare thing, Presents flits across state lines to reveal an America that's diverse, beautiful and, quite often, just a bit strange. Some of the stories work better than others, but the best ones stay with you.



#### Toast of London (Amazon Prime/All 4)

A sense of humour that you'll find either engaging  $or piffling, \textit{To ast} \, is \, an \, absurd \, creation \, that \, follows \,$ Matt Berry's egocentric middle-aged actor as he struggles on and off the stage. Also, Berry's voice is a delight to listen to.





# **ACCESSORIES**

# ANALOGUE INTERCONNECTS

AWARD WINNER

AWARD WINNER

DON'T SKIMP ON CABLES: THEY'RE A TOP-VALUE UPGRADE

#### Atlas Element Integra £45

November 2013 ★★★★

An Award-winner three years on the trot, this cable digs up detail and isn't fussy about the kit it's used with. A great first upgrade. **Balanced/Single** Single



#### Chord C-Line £45

Best analogue interconnect, Awards 2015 ★★★★

Few entry-level interconnects at the price come close to offering the sonic enjoyment that Chord has produced with this cable. Balanced/Single Single



#### QED Performance Audio 40 £45

Reviewed online \*\*\*\*

If you covet space and detail along with sure but nimble footwork and heaps of insight, all for less than £50, look no further. Balanced/Single Single



#### QED Reference Audio 40 £85

June 2014 \*\*\*\*

An engaging interconnect that's capable of expressing the dynamics and nuances of a track, and which has reassuring build quality. Balanced/Single Single



# **AV & HI-FI RACKS**

HI-FI KIT CAN ONLY SOUND ITS BEST WITH THE PROPER SUPPORT



E500 to £800

#### Atacama Eris Eco 5.0 £460

April 2012 \*\*\*\*

Whatever hi-fi you have will sound agile, detailed and dynamic on this. If that's not all, the Eco is well built, easy to construct and looks smart. Width 590mm Modular Yes Cable management No



"A great-performing, well-built and well-priced kit rack"

# Atacama Elite Eco 12.0 £500

March 2013 ★★★★

Those looking for a strong support for AV and hi-fi that enables a fluid, authoritative presentation will like the performance this rack can offer. Width 1157mm Modular Yes Cable management Yes



"We were impressed by how our system performed when using this rack"



Best equipment support, Awards 2015 ★★★★

The SE stands for Special Edition, while significant improvements in the Eco 60-40's design and dampening mean it works better than ever. Width 600mm Modular Yes Cable management No



"If you're of the opinion all hi-fi racks are created more or less equal, think again"

#### Hi-Fi Racks Podium XL £1050

lune 2010 ★★★★

Made for home cinema, this large rack can take a 65in TV and with performance that has more weight and top-end refinement than most. **Width** 800 to 1200mm **Modular** Yes **Cable management** No



"The Podium XL comes across as a well-made piece of furniture"



### **HEADPHONE AMPLIFIERS**

HOW TO GET THE VERY BEST FROM YOUR CANS

#### Meridian Prime £1200

February 2014 ★★★★

A supremely capable headphone amp which doubles as a talented, if feature limited, stereo amplifier. Treat the DAC as a nice bonus. **Outputs** 3.5mm. 6.3mm **Inputs** RCA.3.5mm. USB



#### Pathos Aurium £850

August 2013 \*\*\*\*

A top-class choice for amplification, but you'll need a source and a pair of headphones of similar quality if you want the best from it. **Outputs** 6.3mm, XRL, RCA **Inputs** XLR, 3 RCA



# **MAINS PRODUCTS**

A CLEAN POWER SOURCE IS VITAL FOR INTERFERENCE-FREE HI-FI

#### Olson Sound Fantastic HF6 £135

September 2015 ★★★★★

Grants a system far greater freedom of expression without sacrificing control or authority. If you can afford to, buy it without reservations. **Type** Block **Mains filter** Yes **No. of plugs** 6



#### Tacima CS947 £45

September 2015 ★★★★★

Great value, the highlight being how well it allows for greater detail, attack and dynamics. For the price, it's a brilliant entry-level purchase. **Type** Block **Mains filter** Yes **No. of plugs** 6





**Up to £200** 

# Audioquest litterbug £40

April 2016 \*\*\*\*

Though it looks insubstantial, when plugged into a USB port it works wonders filtering signal noise to allow a more solid and precise sound. Type USB Mains filter No No. of plugs n/a



#### Isotek EVO Polaris + Premier cable £400

September 2015 ★★★★☆

Offers a significant improvement over just plugging your hi-fi into the wall, allowing your system to sound more positive and confident.

Type Cable + block Mains filter Yes No. of plugs 6



#### Russ Andrews X6 £350

September 2015 \*\*\*\*

No matter what the source material, the X6 helps unearth a revealing, well-integrated listen, allowing your kit to be as explicit as it can be. Type Block Mains filter Yes No. of plugs 6



# PHONO AMPIFIERS

EVERY RECORD DECK NEEDS A PHONO AMP

### Graham Slee Gram Amp 2 Communicator £160

lune 2013 \*\*\*\*

Fast, organised and dynamic, this box offers great quality on a budget. The Gram Amp 2 Communicator is low on frills but high on quality. Type MM Dimensions (hwd)  $7 \times 10 \times 25$ cm



#### Rega Fono Mini A2D £85

March 2012 ★★★★

There's little fancy about the Fono Mini A2D but that doesn't matter when the presentation is this good. And it has a useful USB output.

Type MM Dimensions (hwd)  $6 \times 18 \times 25 \text{cm}$ 



#### Rega Fono MM Mk2 £200

Best phono stage, Awards 2015 ★★★★

Although it lacks the detail of other similarly priced phono amps, the Rega Fono more than justifies its price in terms of dynamics and scale. Type MM Dimensions (hwd)  $7 \times 4 \times 33$ cm





**TURNTABLE CABLE** 

"I had planned to just play a couple of tracks... It sounded so good I played several albums!"

A Naunton, online review

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AWARD WINNER



December 2015 ★★★★

A phono stage of rare quality under £1000, the Rega Aria will perform superbly – as long as the rest of your system is suitably talented. **Type** MM, MC **Dimensions (hwd)**  $8 \times 22 \times 32$ cm



# Cyrus Phono Signature/PSX-R2 £1900

May 2016 ★★★★

Partnered with the PSX-R2 power supply and a suitably talented turntable, the Signature sounds great. It's a top-class phono stage. **Type** MM, MC **Dimensions (hwd)**  $7 \times 22 \times 36$ cm



# SPEAKER CABLES

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#### Audioquest FLX-SLiP 14/4 £5.80/m

November 2013 ★★★★

Not only is the FLX-SLiP 14/4 able to turn a corner no matter how tight, lest we forget, it's also an incredibly easy cable to listen to as well.

Single or Bi-wire Single

#### QED Ruby Anniversary Evolution £6/m

March 2014 ★★★★★

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March 2014 \*\*\*\*

A fine speaker cable, the Luna's exciting presentation and all-round ability means it should sit well with a wide range of systems.

Single or Bi-wire Single



Not the flashiest cable, its strength is aiding dynamics and musicality, as well as knitting instruments together for an enjoyable experience.

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Awards 2014 \*\*\*\*

Facilitates a detailed, balanced and authoritative sound with a full-bodied presentation that leaves competitors sounding lean.

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Easy to assemble (we suggest you mass-load the stand), these Atacamas help produce a detailed, clear and energetic sound. Top plate size (wd) 130 x 170mm Height 60cm Fillable Yes



"Really good at letting a system to do its job properly"

#### Atacama Moseco 6 £120

Best speaker stand, Awards 2015 ★★★★

A speaker stand that impresses with how weighty and dynamic it allows systems to sound. Considering the price, it's something of a steal.

Top plate size (wd) 130 x 170mm Height 60cm Fillable Yes



"The Mosecos may just be our new favourite affordable speaker stands"

#### Soundstyle Z2 £70

November 2008 ★★★★★

An ideal stand if you're on a budget, the Z2s can boost your speakers' detail, attack and openess for less than £100.

Top plate size (hwd)  $125 \times 166 \times 3$ mm Height 57cm Fillable No



"The Z2 does everything right at a reasonable price"

#### Custom Design FS104 Signature £200

September 2011 ★★★★

A stylish, reasonably priced stands that work across a variety of speakers. Buy Custom Design's Inert Filler (£20) for the best results. Top plate size (hwd) 220 x 260 x 4mm Height 60cm Fillable Yes



"There's something elegant in the Signature's simplicity"

#### Q Acoustics 20 speaker stands £200

September 2014 ★★★★★

Designed with QAs' Concept 20 speakers in mind, the clever construction and elegant design ensures other speakers give their best too.

Top plate size (hd) n/a Height 66.5cm Fillable No



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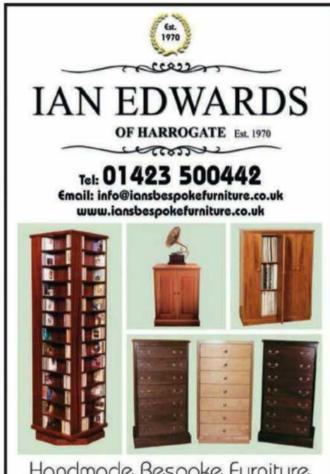
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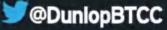


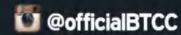
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# **Up on decks**

Sony turntables, then and now

We're in the middle of a vinyl revival now, but back in 1983 it was a vastly different story. The format looked to be in terminal decline, with the new (Sony co-developed) CD grabbing the limelight and an ever-increasing number of sales.

Against such a backdrop it's no surprise Sony didn't pay much attention to the quality of its budget turntable designs back then. The PS-LX33, reviewed in 1983, is typical. The specification is fairly typical for the time - direct drive with automatic operation where the arm set down and lifted off the record on reaching the end of the side. It wasn't devoid of innovation - the cartridge was integrated into the headshell for ease of use and to avoid alignment issues. It's an admirable idea, but not nearly enough to make this deck anything approaching recommendable.

Despite measuring brilliantly for speed stability, this Sony did little else to impress us. It had a bland, undynamic sound that just about managed to stay on the right side of listenable. Things weren't helped by sensitivity to hum and a lightweight plastic construction that was prone to resonance.

The new PS-HX500, reviewed three decades later, is far better. It's a more thorough design with a greater emphasis on performance. While fully manual it remains easy to use and is well equipped. Features include a built-in phono stage and analogue-to-digital conversion circuitry, which makes it an immensely flexible proposition. Back in '83 vinyl looked dead and buried. Who'd have guessed that 33 years later the format would have a shot at outlasting CD?



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