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## SOUND AND VISION

March 2015 ₹100

INDIA'S No.1 HOME ENTERTAINMENT MAGAZINE

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**Showroom:** Old No. 104 New No. 76, Dr. Radhakrishnan Salai, Mylapore, Chennai - 600 004. Ph: 43213453 / 54.

**Contact:** V S. Jayaganesh - 98410 62201. Email: jayaganesh@onkyo.co.in

For more information, call: ● **BENGALURU:** J. Venkat-9841401831- venkat@onkyo.co.in ● **DELHI:** S. Baskhar - 98117 76762 - baskhar@onkyo.co.in ● **HYDERABAD:** V. Srinivasa Rao - 98490 41504 - srinivas@onkyo.co.in ● **MUMBAI:** Usama Niazi - 98209 00726 - usamah@onkyo.co.in, chrag@onkyo.co.in, chrag@onkyo.co.in ● **KOLKATA:** J. Mohan - 98414 26209 - mohan@onkyo.co.in

**Premium Partners:** AHMEDABAD: Pavilion Electronics, FF-113, Shangrila Arcade, Nr. Shyamal Cross Road, 100 Feet Road, Satellite, Ahmedabad - 380 015. Ph: 079-26752515, Mob: 98254 82900/98254 14595 Email: brjesh@pavilion.co.in BENGALURU: Modern World, #138/14, Service Road, Old Airport Road, Domlur, Bengaluru - 560 071. Ph: 2535 8192 / 2535 9406, Mob: 77609 88167, Email: modernworld@vsnl.com ● **Modern World**, No.25-30, Hennur Road, Behind Sony Centre, Kalyan Nagar, Bangalore-560 043, Ph: 42126742/43 CHENNAI: S. Digital Park, New #35, Second Avenue, Ashok Nagar, Chennai - 600 083 Tel: 044 4203, 3291 Mobile: 98844 00714, 98844 16416 Email: s.digitalspark@gmail.com KOLKATA: Promises Instruments Pvt. Ltd, 45, Shakesphere Sarani, Kolkata - 700 017, Ph: 2290 2644, Fax: 91-33-2283 4461, Mob: 98303 38898 NEW DELHI: AV Zone, L-4, Opp. Neelu Apartment, Chitranganj Park, New Delhi - 110 019, Mob: 98111 76789 RAJKOT: Esteem Electronics & Home Appliances, Gayatri Commercial Complex, Dr. Yagnik Rd. Nr. Jaganath Police Station, Rajkot - 360 001. Ph: 0281-246 7191/246 4873, Mob: 98796 43004, Email: esteemelec@yahoo.co.in SURAT: Paramjeet Electronics, No. M-33 Asconcity, Citylight, Surat - 395 007. Ph: 0261-225 3656, Mob: 91-98251 33320, Email: jk@absolutesound.in

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**BENGALURU:** Unil No. 102, First Floor, Barton Centre, MG Road, Bengaluru - 560 025. Ph: 2587551/30558259/30558261/62, Mob: 7760988163 ● 223A, 2nd Floor, Forum Value Mall, Whitefield Main Road, Bengaluru - 560 066. Ph: 40961342/43, Mob: 7760988165 ● CHENNAI: 49, Kalur Rangan Road, Awarpet, Chennai - 600 018, Ph: 044-2487 1921, 4211 1646/ 1649, 4205 9044, Fax: 4200 0094, Mob: 98410 62201, 98410 01640, Email: jayaganesh@onkyo.co.in, sharmagan@onkyo.co.in ● HYDERABAD: # 1-11-247, 2nd Floor, Surya Arcade, Opp. Bahar Café, Beside MCM & ME, Begumpet, Hyderabad - 500 016, Ph: 040-2776 2228, Mob: 98460 78539 / 78534 56777 ● KOLKATA: 45, Shakesphere Sarani, Kolkata - 700 017, Ph: 2290 2644, Fax: 91-33-2283 4461, Mob: 98303 38898 ● NEW DELHI: L-4, Opp. Neelu Apartment, Chitranganj Park, New Delhi - 110 019, Mob: 98111 76789 ● 546, First Floor, Senkar Road, Old Rajinder Nagar, New Delhi - 110 060, Mob: 98111 30041.

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# WHAT HI FI? SOUND AND VISION

Ground floor, Podar Centre, 85, Parel Post Office Lane,  
Off Dr. B Ambedkar Road, Parel East, Mumbai 400 012.  
email us [whathifi.edit@haymarketsac.com](mailto:whathifi.edit@haymarketsac.com)  
Call us 022-43021000 fax us 022-43021050

## EDITORIAL

**Editor** Nishant Padhiar  
**Deputy Editor** Yatish Suvarna  
**Technical Editor** Farhan Kapadia  
**Editor-Special Projects** Vaibhav Sharma  
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## CONTACT

**Mumbai** Ground floor, Podar Centre, 85, Parel Post Office Lane,  
Off Dr. B Ambedkar Road, Parel East, Mumbai 400 012.  
Tel: 022-43021000 Fax: 022-43021050  
e-mail: [whathifi.edit@haymarketsac.com](mailto:whathifi.edit@haymarketsac.com)

**New Delhi** A2/9, Lower Ground Floor, Safdarjung Enclave,  
Africa Avenue Road, New Delhi - 110029  
Tel: 011-46020600, 32444090, 32969125 Fax: 011-46020633

**Chennai** M H V Pinnacle, First Floor 8/27 Govindu Street, T Nagar  
Chennai 600 017. Tel: 044-65446363 Telefax: 044-4212 3230

**Bengaluru** No. 811, 'A' Wing, 8th Floor, Mittal Towers, M.G. Road,  
Bengaluru - 560001. Tel: 080-2559 3775

**Secundrabad** No. 6-1-144, Nirmal Bhavan, Ground Floor,  
Street No 9, Walker Town, Padmarao Nagar, Secundrabad - 500 025

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# Hello/03/15



**We are at the dawn of a new experience.** More immersive surround sound and more realistic picture is already upon us. It's just a matter of how deep do you want to take yourself into uncharted territory. To make better sense of everything, we decided to take matters in our own hands and let people experience the revolution themselves. The **What Hi-Fi Show** is back and this time at Mumbai's most premium location, the Palladium Hotel. With more than 35 rooms filled to the gills with the finest pieces of AV equipment on sale in India today, it is more than an exhibition. It's an emotionally charged environment for any music and audio lover. We'll bring you the full coverage in the upcoming issue.

Inside this issue, we have put **Dolby Atmos amps (p46)** to the test and regardless of the adoption rate, it does sound pretty amazing and makes a strong case for itself when prices start to tumble. **Bookshelf speaker (p26)** fans will have reasons to smile too as our exhaustive group test picks out a winner from a rather accomplished bunch.

**Arcam (p6)**, a brand with rich heritage in electronics has embraced the soundbar with open arms and we bring you an exclusive test inside.

For all this and more, turn the pages and start dreaming.

Nishant Padhiar, Editor



## Why we're No.1!

### Experience and heritage

In the AV universe our deep rooted heritage and experience helps us share a wealth of information, helping you make a sound decision

### Dedicated test facilities

Our bleeding edge test facilities are stocked with the top of the line reference systems to put incoming products through their paces

### We spot big trends first

Don't blame us for breaking the best stories, it is a habit that ensures you get to learn about tomorrow, today

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 "It's a novel idea that works very well, and only promises to get better"



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Dated 1st March 2015



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1500 products rated **p75**  
With new categories and key tech specs, we've made it even easier for you to pick the best kit for your cash.

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## WHAT HI-FI? TEST WINNER

If it's one of our winners, you know it's top quality





# Exclusive reviews of the latest kit

# FIRST TESTS

**EXCLUSIVE**

## An ambitious attempt by Arcam to raise the bar

**Arcam Solo bar | Soundbar | ₹1,23,000**

There's more than one way to skin a cat, or in the case of home cinema, use a soundbar. One way is to plug your sources into your TV and have just one digital cable running from the back of your set into the unit.

The other approach is one taken by Arcam and it's first ever entry into this market: the Solo bar. The British company has used its experience in home cinema to transplant some of the brains and features of a surround-sound receiver into its new creation.

### Surprise package

So the Solo bar has a number of features you expect to see in a home cinema amp and a couple of surprises thrown in too: four 4K-supporting HDMI inputs. The Arcam's HDMI output is also ARC (Audio Return Channel) enabled, so it can accept audio from compatible TVs.

Cycle through Arcam's menus and you'll find 'Auto Setup.' Like some surround-

sound amps, the Solo bar comes with a microphone and automatic-calibration software. Hit 'ok' on the remote, the bar fires out a few test tones and the levels of the speakers in the bar are adjusted accordingly. When it's connected, the bar does the same for the optional wireless Play subwoofer too (see panel).

There's no on-screen GUI (graphical user interface) for the Solo bar, everything's done through the display on the unit. It's reasonably large and fits in a decent amount of information, although the pale blue characters look dated compared to the dark green ones on other Arcam kit.

Once the soundbar has been calibrated you still have the option of switching the EQ off, and you might want to experiment to see what you prefer. With it on, we find the Arcam sounds more airy and open. Turn it off and you sacrifice some of the spaciousness but gain more solidity at the bottom end.

You also have three different sound modes to work with: 'Movie', 'Concert' and 'Stereo'. 'Movie' gives a broader spread of sound, while the other two give varying degrees of focus. Play music through the Arcam's Bluetooth receiver and the system defaults automatically to 'Stereo'.

**Once the soundbar has been calibrated, you still have the option of switching the EQ off. With it on, we find that the Arcam Solo bar sounds more airy and open**



Arcam supplies shaped feet that slot under the soundbar to angle it upwards, which is useful if it is much lower than where you are seated





## In detail...

The Arcam Solo sub isn't cheap and costs an extra ₹66,000. It's a sealed-box design and uses a 10in driver together with a 300 watt amplifier. The most convenient way to connect is wirelessly, but there's always the wired option too.

**A plus-point for the Arcam is its ability to decode the high-quality Dolby TrueHD and DTS-HD Master Audio soundtracks found on Blu-ray discs, something many rivals cannot do**

Talking of Bluetooth, the Arcam allows you to go wireless, but with a significant twist. Not only can you beam music to the Solo bar the traditional way, but you can also transmit sound from it to a pair of Bluetooth headphones. It's a clever touch and something we haven't seen in a soundbar before. Bonus points to Arcam for thinking outside the box... or should that be outside the bar?

### Bar any issues

The bar itself is quite a substantial unit, with a solid, aluminium chassis. For all intents and purposes it's a pair of speakers with 50-watts per channel. The tweeters at either end of the bar are angled out, at five degrees each, to enhance the width. There's a bracket for wall-mounting bundled in the box too. Since the first shipment went into stores, Arcam now supplies wedge-shaped-feet that slot under the soundbar and help angle it upwards, which is useful if it is at a much lower level than you are seated.

Besides the smart use of Bluetooth, another plus point for the Arcam is its ability to decode the high-quality Dolby TrueHD and DTS-HD Master Audio soundtracks found on Blu-ray discs. The majority of soundbars on the market tend to only take the core DTS and Dolby soundtracks off a disc so, theoretically, the Arcam is digging out more information than many of its rivals.

In reality, movie soundtracks beam out of the Arcam loud and clear, and there's an impressive level of transparency across the board. Soak up the action from the DTS-HD Master Audio soundtrack to *After Earth*, and you're aware of the bar's even tonal balance. Voices are just as audible and lucid as the action. Just before Kitai sky-jumps off the waterfall there's a ton of detail in the heated exchange between Jaden and Will Smith. As the young hero tries to avoid the giant bird of prey, there's a real sense of punch and precision, as bird and boy swoop and jostle.



## In detail...



- 1** There are two 3.5mm inputs tucked away under the Arcam. The one on the left is an analogue input for hooking up a different source. The right input is for the Solo's set-up microphone – don't get the two confused!
- 2** You've got access to both optical and coaxial digital inputs. They sit alongside a subwoofer pre-out, should you want to connect to the Solo sub (or any other sub) via a wired connection.
- 3** Four HDMI inputs should be more than enough for a set-top box, games console, Blu-ray player and so on. If you suffer any lip-sync issues, you can manually adjust the delay in the Arcam's menus.



The remote that comes with the Solo bar is very similar to the stock remote that gets packaged with a lot of Arcam electronics. It's small, minimalist and feels quite cheap. It also seems to suffer from a split personality – sometimes we press buttons and get an instant response, other times we press the same button (mainly volume) three, or four times before it decides to respond. There is a solution: Arcam suggests



you download its dedicated Solo bar remote app for iOS and Android devices. It connects via Bluetooth, mirrors the soundbar's display on your phone, and also gives you access to the same assortment of buttons via your touchscreen. The Solo is quicker to respond to these prompts too.

Where the Arcam doesn't quite succeed is in drawing you into the film, as it doesn't really convey the dynamics or drama of the movie as well as it could. As the camera pans and streams merge into the waterfall, rival soundbars, like the Dali Kubik One or Focal Dimension, give more of a sense of the rushing water and the power of Mother Nature as it cascades over the edge. There's greater richness and finesse to the sound too. Dialogue sounds that bit more natural and emotional.

### Fails to bring the funk

Playing Stevie Wonder's *Live At Last* Blu-ray, the Arcam shows it's able to deliver music with poise and precision. During *Superstition* percussion stops and starts in all the right places. The saxophone has a distinct tone, but it doesn't sound edgy or hard enough. It's easy enough to listen and isolate all the different elements of the

track. We just aren't excited enough, and the normal upbeat funk of this classic tune doesn't register as much as it does when heard through more capable rivals. They offer greater weight and richness in the bass and greater dynamic thrust.

### In need of a little finesse

The story continues when you switch to simple streaming of music via Bluetooth. Complex rhythms don't present a problem and there's nothing wrong with how the Arcam organises music. But nonetheless you still yearn for greater finesse and sonic artistry.

Arcam has been very ambitious with the Solo bar, and in some ways it goes above and beyond what we've come to expect from this kind of product. But when it comes to sound quality, the Arcam doesn't quite cut it against the very best.

### TECH SPECS

**Inputs** HDMI x4, optical, coaxial digital • **Outputs** HDMI (ARC) subwoofer • **Bluetooth** Yes • **Decodes** Dolby TrueHD, DTS-HD Master Audio • **Subwoofer** Wireless (optional) • **Dimensions (hwd)** 13 x 100 x 11cm • **Weight** 6.4kg

### Rating ★★★★★

**FOR** Build; four HDMI inputs; receives and transmits audio over Bluetooth

**AGAINST** Struggles with dynamics and subtlety; lacks weight and finesse; poor remote

**VERDICT** An ambitious piece of kit which almost pulls it off

### Also consider

**Dali Kubik One ₹1,05,000**

★★★★★

Dali's entry into the soundbar market has a decent smattering of features and boasts excellent sound quality.

**During Stevie Wonder's *Superstition*, percussion stops and starts in all the right places. Saxophone has a distinct tone, but it doesn't sound edgy or hard enough. We just aren't excited enough when we compare the Arcam with rivals**



## REVIEWER'S NOTES...

- 1** Our seating position is slightly above the Solo bar, so we use the small plastic feet supplied to tilt it upwards a few degrees.
- 2** We experiment with the different sound modes and find we prefer the EQ off and either the 'Movie' or 'Stereo' modes.
- 3** The standard plastic remote can be frustrating so we switch to the iOS app, which is much better.
- 4** Once we've paired our iPhone 6 to the Arcam we open Spotify to stream some tunes over Bluetooth which...
- 5** ...turns into late-night listening, so we pair the Arcam to a set of Bose Bluetooth headphones – the set-up works a treat.



**Mission M³ | Speaker package | ₹73,000**

# Mission, almost accomplished

If it's a tiny home cinema system you want, the Mission M³ is a great solution. We were big fans of the original - the M Cube claimed five stars for its style and Performance back in 2005.

Almost a decade on, the new and updated Mission M³ once again is a tempting proposition for those who want a large 5.1 cinema sound but don't have enough space for traditional, boxy speakers. The Mission M³ package comprises five dinky satellite speakers (each small enough to fit into the palm of your hand) and an active subwoofer.

## Driving force

While the M³ speakers retain the same petite dimensions of their predecessors (each measure 9cm cubed), there are a couple of notable changes.

The biggest update is the use of Balanced Mode Radiator (BMR) driver technology. Each M³ satellite has a 75mm-BMR driver, which replaces the NXT panels of the previous model. Mission claims that the BMR drivers help deliver a larger spread of sound as well as being able to receive a full-range signal. This means you can connect the speakers directly to your AV receiver. It's a more conventional design than before, where you had to connect your amp to the sub which in turn linked to the satellites.

The subwoofer has a downward-firing 20cm driver powered by 200W of amplification, and mirrors the cuboid design of the satellites. It's large, but still compact enough to be tucked in a corner. There are volume, crossover and phase controls on the back panel, and the sub is up on metal spikes.

## Black-and-white decision

The speakers are sturdily built, with a soft-touch finish giving a smart, premium look. The package comes in an all-black finish, although there will be a white version available later in the year. The speakers are tiny, but the Mission M³ delivers a surprisingly loud and powerful performance. We're impressed with the weight and punch in the lower frequencies, too. There's muscle



## Satellites of love

satellites come with adjustable stands attached, making them easy to place around your home or inside bookshelves. If you prefer wall mounting, brackets are included too.

**Cohesion between each speaker is seamless, and the spread of sound is impressive. Effects are steered across the room effectively**

to the bass, with satisfying oomph and wallop to explosions and crashes in *Guardians of the Galaxy*. Make sure to give the subwoofer space, as it sounds a little boomy when the action picks up.

Cohesion between each speaker is seamless, and the spread of sound is impressive. Effects are steered across the room convincingly and with a great sense of movement. While it would struggle to fill up a large home cinema room, the Mission M³ has no problem filling up smaller, medium-sized rooms with its bold sound.

Detail definition is respectable, and there's a smoothness to the Mission's presentation that's comfortable to listen to. It's a well-timed, agile performance too.

On the flipside, there's a lack of sparkle to the crunch of shattered glass, while explosions and gunshots don't have that bite we expect. We sometimes have to strain to hear dialogue over the booming power of the subwoofer. While we appreciate the Mission M³ doesn't veer towards a bright, thin sound,



## USE IT WITH X-Men Days Of Future Past

A head-spinning and chaotic time-travel adventure that has plenty of action to get your system firing.

we think the treble is rolled off a bit too much - rivals in this category, such as the new Cambridge Audio Minx S215 system (₹60,000\*), express the balance of frequencies, dynamics and clarity better.

We're hugely impressed by how muscular and integrated the speakers are, and it's a shame it doesn't have an ounce more clarity to gain that fifth star.

Despite its flaws, the Mission M³ remains a likable and convenient speaker package. It's a fuss-free system to install and place in your room, and will suit smaller home cinema rooms nicely. But there are rivals that offer a slightly more engaging performance.

## Rating ★★★★★

**FOR** Big and powerful sound; muscular and punchy low end; great spread of sound; agile and well-integrated; smart finish and design

**AGAINST** Top end lacks bite and excitement

**VERDICT** Petite and powerful, but not quite the all-round performance we hope for

## Also consider

**Cambridge Audio Minx S215**  
₹60,000\* ★★★★★

A small system that gets it right: delivering a big, dynamic and refined sound that's hugely entertaining.

## System builder total build ₹1,52,889

### Television

**Samsung UE48H6400**  
₹1,03,900 ★★★★★

Lovely picture detail, colour balance and a wealth of smarts: one of the best.



### Home cinema amplifier

**Yamaha RX-V377**  
₹34,999 ★★★★★

Powerful and punchy, this entry-level AV receiver will suit the muscular character of the Mission M³ system.



### Blu-ray player

**Sony BDP-S490**  
₹13,990 ★★★★★

An Award-winning Blu-ray player that delivers terrific video and audio performance on a budget.



**Bowers & Wilkins T7** | Wireless speaker | ₹30,000 (approx.)

# Class-leading portable carries the day

It's almost a surprise that a speaker company as renowned and as popular as Bowers & Wilkins doesn't already have a Bluetooth speaker in its increasingly broad range of products. Well, now it does, in the shape of the B&W T7, its first portable Bluetooth wireless speaker.

B&W's Zeppelin Air, A5 and A7 wireless AirPlay speakers led the way in their respective price categories for Apple users wanting wireless music. Now the T7 wants to do the same for portable Bluetooth speakers, opening B&W up to an audience of Android and other device users (and, of course, Apple).

## Thoughtful design

The T7 speaker looks like a B&W product. There's a premium look, and an obvious design flourish which helps set the speaker apart. This is mainly thanks to the Micro Matrix design, which makes for a transparent frame around the main bulk of the speaker, creating a neat honeycomb effect. It's designed to improve the sound by making a solid, resonance-free structure. It also looks smart, twinkling when it catches the light.

At 950g it's light enough to be portable and fit in a bag, yet still feels more solid and robust than you might think when you first pick it up (although it will wobble on its 4cm-deep base given too strong a prod).

On the top edge you'll find four control buttons which let you pair, play/pause and adjust the volume, and there's a blue LED to one side, which shows when you're paired.

Around the back there's a power socket and aux input for non-Bluetooth devices. There's no USB connection for charging your device as you find on some rivals, but we think that's very much a bonus rather than a necessity.

B&W told us the aptX codec was a must to ensure the T7 could achieve the Bluetooth sound quality the company wanted, so that's present and correct.

## Quick hook-up, long playing time

We connect a variety of Apple and Android devices without problem, as well as a MacBook Pro. B&W claims 18 hours of playback (75 per cent volume, rock music) – but suggests you should get much longer, anything up to 40 hours, at lower volume and/or with speech radio. We comfortably get more than 24 hours music playback.

The specs are solid, the features more than sufficient. But what really matters is the sound quality. And at ₹30,000\* it needs to be good. Thankfully, we're impressed. The B&W T7 sound is an easy, pleasurable listen that does a fine job of delivering high-quality sound in a portable package.



**The specs are solid, the features more than sufficient. But what really matters is the sound – at ₹30,000\* it needs to be good. Thankfully, the T7 does a fine job of delivering high-quality audio**

Streaming lossless FLAC files from our aptX-enabled Sony Xperia Z3, music is detailed, nicely balanced and musical. *It Ain't Hard To Tell* from Nas' remastered *Illmatic XX* album has a solid, punchy bass that gets your head nodding, plus clear vocals to help deliver an open, relatively spacious sound from a small speaker.

## USE IT WITH

**Sony Xperia Z3**

A great big-screen smartphone that also offers aptX Bluetooth.



## Realism and rhythm

Instruments sound natural and realistic, with impressive dynamics ensuring notes stop and start punctually, helping to give the sound plenty of attack and rhythm.

Play Bob Marley's *Waiting in Vain* and though some rivals might deliver more bass, it won't sound as tight as it does on the T7. There's no flappiness, no loss of composure at loud volume – instead the T7 doles out bass weight when it's required. And it does go pretty loud. The Loewe Speaker 2Go goes louder and sounds a bit bigger but is never as organised or musical.

**The T7's honeycomb Micro Matrix design aims to create a solid, resonance-free unit**



Play something a little brighter and edgier, such as Metallica's *Until It Sleeps*, and the T7 faithfully delivers the recording's raw flavour. You can, though, push the speaker closer to a wall to take the edge off a little and fill out that bottom end.

The B&W T7 is at the upper limit of what we'd expect most people would be prepared to pay for a compact portable wireless speaker, and beyond it for some. But if you value sound quality, as of course we do, and you've got the budget for it, this really is money well spent.

The T7 looks the part, does everything you'd expect a Bluetooth speaker to do, and sounds comfortably better than any such product we've heard at the price. Bowers & Wilkins has entered the market in style.

## Rating ★★★★★

**FOR** Looks good; impressive battery life; easy to use; detailed, musical sound

**AGAINST** No USB charging facility

**VERDICT** B&W's first Bluetooth effort looks good and sounds great – a genuinely portable speaker that justifies its premium price

## Also consider

**Loewe Speaker 2go**

₹24,000\* ★★★★★

Big, powerful sound and charges your phone, too – but lacks the clarity and subtlety of the T7.



**Dali Rubicon 5 | Stereo speakers | ₹2,43,000**

# Rubicon clearly sparkles

**Dali has long** had a knack of making likeable speakers. All it takes is a short listen to confirm that the Rubicon 5 is yet another. These floorstanders might not be flawless, but they have a sparkle about their performance we can't help but enjoy.

## That extra half-way

Dali tends to do things a little differently. While the 5s are a two-and-a-half-way design, there's a twist: that extra half-way refers to an additional tweeter rather than the more usual dedicated bass driver.

The extra tweeter is a 17 x 45mm ribbon design - it takes over from the conventional soft-dome unit at around 14kHz, with the dual aims of maintaining dispersion at the highest frequencies and improving resolution.

have a fluid way with dynamics, and their energetic presentation makes them happy to belt out Bruce Springsteen's *Radio Nowhere* - even at high volumes.

There's an infectious sense of drive here, combined with plenty of punch. Despite a bit of excess richness in the bass, it's agile enough not to slow things down. Overall resolution is good, making it easy to follow instrumental strands, even though the production is pretty dense. We like the Rubicon's way with voices too. Springsteen's voice is rendered with convincing texture and nuance.

**Moving on to Prokofiev's *Romeo and Juliet* shows off the Dalis' fine stereo imaging. It's wide, nicely layered and well focused. If your kit is talented enough, the 5s won't disappoint**

Moving down the frequencies, the midrange and bass are delivered by a 16.5cm-unit tuned by a rear-firing port. The driver uses Dali's trademark wood-fibre cone material, which is claimed to give a good balance of low weight, rigidity and damping.

The Rubicon 5s are well built, though they feel a little lighter than expected. The white-gloss finish on our review samples is nicely applied and looks classy. Other finish options include gloss-black, rosso-veneer and walnut.

We're happy with the level of fit and finish - it's clear that the company has put in a great deal of effort to ensure the speakers' quality is right. Positioning is easy: just give the Rubicon 5s space to breathe and fire them straight ahead, rather than angling towards the listening position. The speaker's wide dispersion makes this positioning preferable.

Once set up these towers certainly deliver. These are lively performers that

Moving on to Prokofiev's *Romeo and Juliet* shows off the Dalis' fine stereo imaging - it's wide, nicely layered and well focused. Provided the rest of your kit is talented enough the 5s won't disappoint in this respect.

## Flawed, but with appeal

What flaws do we find during our test? There are better options if tonal purity is a priority, and the very best rivals have a transparency the Dalis can't quite match. Neither of these things is enough to upset us too much, however.

There's no shortage of competition at this level, with models from Spendor, ProAc and PMC setting very high standards. Yet the Rubicons have enough appeal to be worth a serious listen.

We doubt you'll be disappointed if you pick up a pair.

**It's clear the company has put effort into the Dali Rubicon 5s' classy build and finish**

## Rating ★★★★★

**FOR** Fast, agile sound; enthusiastic delivery; good bass weight and authority; fine build

**AGAINST** Tonal balance isn't particularly even; no shortage of top-class rivals

**VERDICT** These are fine speakers, but they're up against some mighty competition

## Also consider

**Spendor A6**  
₹2,75,625 ★★★★★

For agility and insight, little at this price can match this Award-winner.

## System builder total build ₹8,98,000

### CD player

**Roksan Caspian M2** ₹1,98,000 ★★★★★

In our opinion the finest CD player available at this price. A 2014 Award-winner for Best CD Player.



### Streamer

**Cyrus Stream XP2-Qx** ₹2,69,000 ★★★★★

This superb streamer has an absolutely fantastic sound and won our Best Streamer Award last year.



### Stereo amplifier

**Roksan Caspian M2** ₹1,88,000 ★★★★★

Remains a top-class amplifier despite its advanced years. It has just the right combination of refinement and drive.



**Bowers & Wilkins P5 Series 2 | Headphones | ₹25,990 (approx)**

# A sequel that surpasses the original

With gorgeous looks and even better sound, the Bowers and Wilkins P5 Series 2 headphones - evolved from the excellent original P5s - have our full attention. With the Series 2, B&W has finally hit the jackpot. This is a fantastic pair of cans that's hugely entertaining to listen to.

## Timing and articulation

We're struck by how precise and articulate they sound. Where the old P5s had a slightly overly rich presentation, the 2s are crystal-clear and have superb timing.

Hans Zimmer's epic compositions are marshalled with authority and subtle dynamics, while the aggressive guitar shredding of Metallica's *Master Of Puppets* is fast, snappy and powerful.

Despite being closed-back headphones, the P5s sound wonderfully open and offer more than enough room for instruments to flourish. It's weighty sound that reveals a staggering amount of detail. The bass is deep and muscular while remaining taut and agile. The top end gives bite and attack, while still leaving plenty of breathing space for a song to reach its soaring crescendo.

Voices are delivered with exquisite detail. Harriet Wheeler's breathy, heartfelt vocals on The Sundays' *Wild Horses* soar, with each inflection and nuance laid bare.

## The ability to adapt

These P5s may not be as forgiving as the smooth and rich Sennheiser Momentum over-ears, but neither do they make a fuss when playing low-resolution MP3s. For all their precision and tight control, the B&Ws never forget to have fun, and you may just find yourself belting along to the rocking melody of Kansas's *Carry On Wayward Son*.

Even if the sound quality didn't impress us, we'd still be drooling over the way the

**It's a rich sound that reveals a staggering amount of detail. The bass is deep and muscular while remaining taut and agile**

## Parts replacement

You can swap out the ear pads for new ones when they wear out, and replace the 3.5mm cable easily (and cheaply) if it gets damaged, instead of having to buy a new pair of P5s.

snug at first, but they will loosen up in time.

The biggest design overhaul lies underneath the surface.

Lift off the magnetic ear-pads and you'll see a brand-new driver design. Taking inspiration from its flagship P7 headphones, B&W has fitted 40mm full-range drivers with a suspended diaphragm - similar to the way a conventional speaker is designed. B&W claims this results in a more open and precise sound. Considering how much better they sound than the older version, we're inclined to agree.

## Cable options

As before with the original P5s, you get two cables in the box: one with in-line microphone and remote control, one without.

While Apple users get the full advantage of playback and volume controls, Android users can only pause and play.

There's some tough competition at this price. The Award-winning Beyerdynamic T51is are the P5s' most pressing concern, and we can't wait for a group test involving both of them (and the much-loved Sennheiser Momentums, too).

If you're looking for a premium pair of headphones that look and sound the part, the new P5s should be on top of your list.

**Smart, comfy and stunningly gifted - there really isn't anything not to like**

## In detail



**Design overhaul** In a move away from the design of the original P5s, B&W has fitted 40mm full-range drivers with a suspended diaphragm

P5s look. They're stunning. The black-and-metal finish is unchanged - B&W has rightly found no reason to mess with such a sleek and classy combination of materials. The headphone market is saturated with plastic-based design, but the stylish P5s feel special in every way.

## Beautifully made

Build quality is exquisite: the aluminium structure is sturdy yet flexible, while the sheepskin leather ear pads (a little thicker than before - hooray) and headband are luxurious and comfortable. The closed-back design offers a degree of noise isolation, too, but doesn't make your ears too hot. Just don't expect them to stay put if you start head-banging to AC/DC's latest. Compact and light, the P5s are perfect for portable use - they do feel a little

## Rating ★★★★★

**FOR** Startlingly clear, precise sound; bags of detail; punchy rhythm; excellent build; comfort

**AGAINST** Nothing of note

**VERDICT** With gorgeous looks and a stunningly impressive sound, the updated B&W P5s are the new headphones to beat

## Also consider

**Beyerdynamic T51i**

₹26,199\* ★★★★★

Our current Award-winners offer considerable space, insight and rhythmic precision.





**Klipsch R-20B | Soundbar | ₹96,000**

# Dynamic duo close to cracking the case

## When 3D doesn't add up

There's a 3D mode on offer with the Klipsch R-20B, and while it provides a wider soundstage when on, it's detrimental to the sound in other ways, making it too thin and bright.

We start with *Gravity* and there's no doubting the power on offer here, even at lower volumes



It's been a while since we tested anything from Klipsch's home cinema line-up, but with its new Reference range hitting the shelves, it seems like the perfect time to take a fresh look. Sitting just below the pricier Reference II Series, the new Reference line-up is made up of a standard home cinema package and two soundbars, the R-10B and R-20B. It's the flagship R-20B we're concentrating on here: a soundbar and subwoofer duo wading in at a price-point to take on Dali and Yamaha in this increasingly competitive world.

## A smart, if not striking, appearance

Design-wise it doesn't stand out like the Dali Kubik One or the Focal Dimension, but it's certainly smart, and its smaller footprint will appeal to those lacking space. That said, the Klipsch does come with a separate side-firing subwoofer, but its wireless nature helps you be more flexible with its placement thanks to its 15m-range.

At just over one metre wide, the R-20B is probably best suited for use with TVs up to around 50in, and since it's not overly tall you might be able to get away with sitting it underneath your screen if you don't have a whole shelf on your rack to give up to it. Of course, it can be wall mounted and there's a template included in the box.

Inside the slender body of the R-20B is considerable power, with four 76mm midrange drivers and two 19mm dome tweeters, supported by a 25cm bass driver in the solidly built sub. The tweeters take on Klipsch's tried-and-tested 'horn-loading' technology, which sees them connected to a horn-shaped device with the aim of more efficient sound transfer between drive unit and air in front of it. Klipsch has also added aptX Bluetooth technology for using the R-20B to playback music from compatible

portable devices, and overall set-up is admirably straightforward: you have the option of an optical or line-in connection, with an optical cable included in the box to get you up and running right away.

Using either of these connections will mean you'll probably need to find your TV speaker settings and switch them off to ensure you're only getting your sound through the soundbar, plus you'll need to program your TV's remote to control it.

## Capable of filling space

No HDMI also means the R-20B won't be able to decode the most advanced of audio codecs either but, for the majority of people and situations, optical should have you covered. Switch the sub on and it connects to the soundbar automatically via Bluetooth. It's seamless, finding the soundbar within seconds; an LED on its back panel lights up to show when it has connected successfully.

We start with *Gravity*, and one of our favourite test scenes: Kowalski and Stone colliding with the ISS. There's no doubting the power on offer, and even at lower volumes it does a good job of filling our test room with full-bodied and detailed sound, if not very subtly.

For example, as Kowalski and Stone are approaching the ISS, you'll feel more of the building tension with the Dali Kubik One than with the R-20B, and that's all down to a touch more insight and transparency.

When it comes to cranking up the drama though, you don't have to ask the Klipsch twice. As the pair twist towards the ISS, with no brakes to cushion their fall, the R-20B jumps into life, and when they do eventually collide there's a real weight and solidity behind impact. In fact, there's

great integration between the bass and the bar that makes their partnership almost undetectable. If we're nitpicking, we'd have the bass a tad more taut to compete with the likes of the Dali, but it's far from a deal-breaker (and there's a ₹10,000 difference in their price tags).

What's more troublesome is a touch of brightness that upsets the balance in the upper-midrange and treble. Switch to *Fast & Furious 6* and while there's no doubt it's an exciting and upfront performance, the screeching of brakes or the zing of bullets have a hint of harshness about them that can become distracting at volume. We notice this edge softens slightly after around 24 hours of running in, but it's still not as tonally balanced as the Dali or Focal.

The Klipsch R-20B is a good soundbar that just finds itself in a field of great competitors at this price. We love its powerful and upfront sound, but talented rivals top it when it comes to out-and-out balance and absolute detail.

## Rating ★★★★★

**FOR** Powerful for its size; exciting character; solid build; easy to use; good sub integration

**AGAINST** Brightness at high volume; bass could be tighter; could have more connections

**VERDICT** A good soundbar by most standards, but some rivals better it for balance and detail

## Also consider

### Dali Kubik One

₹1,05,000 ★★★★★

Dali's first soundbar has an engaging sound and striking design.



The R-20B has its own rather dinky remote. It's not particularly classy, but it is easy to use

## Hi-times

# MQA Sweet streams are made of these?

## Is an era of high-res streaming about to dawn?

**I**t seems like high-res audio and 4K video have been the "next big thing" for a couple of years now, but 2014 felt like breakthroughs had been made.

With 4K, the lack of content had been a key issue in its slow uptake - but internet streaming of Ultra HD video from services such as Netflix and Amazon has now started with the promise of making 4K more accessible. But what about its audio equivalent?

Well, courtesy of Meridian Audio, a new era may be about to dawn for music streaming...

### MQA - the future is now?

Meridian's new technology, Master Quality Authenticated, is a new method of digitally capturing recorded music in a far smaller file than existing formats. The traditional advantage here is storage space - but in the streaming world this also means less strain on your network and data usage.

Crucially, Meridian also claims it doesn't require any of the sonic sacrifices seen in compressed files. Meridian bullishly claims MQA is "about the future of recorded music", and can be used for downloads and, crucially, high-res streaming.

### Higher-res, higher stakes?

Music streaming has seen huge growth in recent years, and no service has arguably done more to bring this about than Spotify.

With over 12.5 million paying subscribers around the world at time of writing, few come close to catching Spotify right now - but India still hasn't got it.

You can only stream music

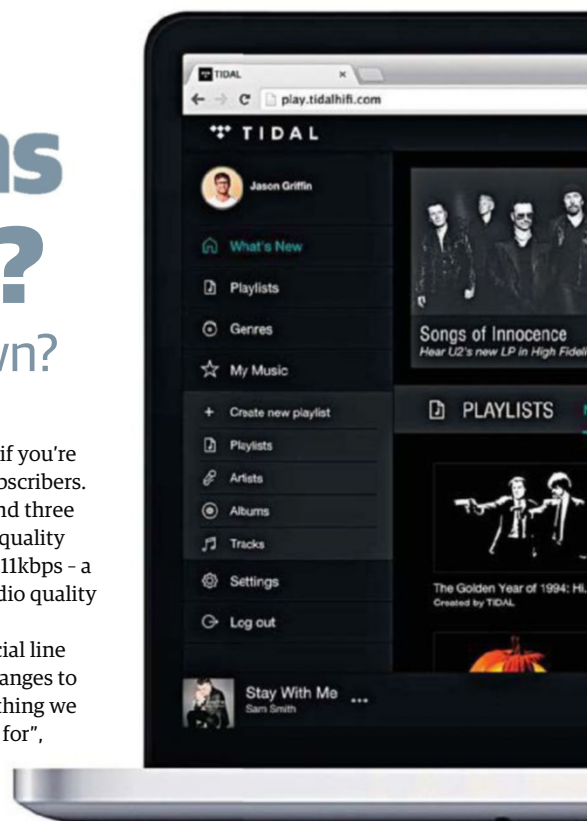
at 320kbps, and that's if you're one of its Premium subscribers. But you can already find three services that offer CD-quality lossless streaming - 1411kbps - a real selling-point if audio quality is your concern.

While Spotify's official line states that "making changes to the bit-rate isn't something we have immediate plans for", CEO Daniel Ek, speaking to Billboard, has hinted lossless audio could be part of a premium deal.

### Hi-fi streaming

Qobuz and the relatively newer

**Master Quality Authenticated is a new method of digitally capturing recorded music in a file that's smaller than many of its rival formats**



Tidal (plus Deezer Elite in the US) offer CD-quality lossless streaming. But with announcements around MQA rumoured for the start of the year, that could soon take a leap in quality. Questions remain over content - for both 4K Ultra HD and high-res audio - but in terms of quality, it looks like the streaming world is about to make a big leap forward.

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#### Transcend MP710

The MP710 player is priced at ₹3999 and has a G-sensor step counter along with a playback time of promised 42 hours.



### Analysis

## Lossless audio is worth the extra – but premium must do more than audio quality

**H**ow much would you pay for high-res audio streaming? And is it worth it? Plenty have already balked at paying \$30/month for CD-quality, lossless streaming (and even \$10 for Spotify and company), so is there room for an even more premium option?

Even for those who have made the jump to streaming, the industry standard £10/month has made paying anything more seem like something of an extravagance. But we'd argue that's really looking in the wrong direction.

If you care about audio quality, then wanting CD-quality or better from your streaming service seems like a no-brainer, provided your system is up to it. In which case, \$20 or more is still great value for, if you like, all the CDs you can handle, at the touch of the button.

Hi-resolution streaming doesn't seem unfairly expensive – but the service must be spot-on



Think about what you're getting: access to pretty much all the music in the world, whenever and wherever you want, at the touch of a button and on a huge variety of devices. \$20/month seems fair to us. And \$10/month for 320kbps seems a fair compromise for those happy to settle for lower sound quality. Of course, more money should mean more money for artists, too, which has to be good.

But if we're going to be paying more, then it's just as crucial that not only is the rest of the service up to scratch – the breadth and depth of tracks, the usability of the apps on computers and mobile, and the availability across partner devices e.g. Sonos – but that the services come up with new content and features to reward premium users.

Lossless streaming audio looks set to kick-start the next big change, and interesting chapter, in the music world – and we're more than happy to pay for it.

## Apple's new streaming service?

For a good few months after Apple completed the \$3bn acquisition of Beats Electronics and Beats Music, we were left guessing what the Cupertino tech giant planned to do.

With regards to Beats Music, we now seem to have a clearer idea – and it's about to catapult Apple into the music-streaming market.

If you're unfamiliar with Beats Music, it's a subscription-based service that launched in the US in early January, but has yet to make it to India.

### Streaming via iTunes

Now, however, it looks as if it will form the backbone of a new streaming service built into iTunes – so instantly accessible to every Apple user. With a drop in digital music sales providing Apple with a minor headache, its entry in to the streaming market seems inevitable. It's likely too that such a move will spell the end for the Beats Music brand as the service comes under the iTunes umbrella. Apple streaming could even be with us as this issue hits the newsstand, if rumours in the US are anything to go by.

But will Apple, which offers 256kbps AAC files for download on iTunes, make the leap to lossless audio when it comes to streaming? We shall see.



### TOP5 New launches

Creative speaker, Merlin Digital projector, Sonodyne Receiver



# CLASSE



## Introducing The New Sigma Series

  
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Email : [avi@audiovisionindia.com](mailto:avi@audiovisionindia.com) **WEBSITE** : [www.audiovisionindia.com](http://www.audiovisionindia.com)





### Kingston HyperX Cloud II

The new HyperX Cloud II gaming headset is out now and features a newly designed USB sound card audio control box featuring 7.1 virtual surround sound.

## EKCO AND CASTLE: VINTAGE HUES

*Both British brands set out to entertain the Indian Audio Industry and are brought to the shore by none other than Mumbai-based Designer Audio Pvt. Ltd....*

If you do something, do it right. That seems to be the mantra of EKCO which saw the face of the Indian market last month through its sole Indian distributors - Designer Audio. Both products, the EKCO EV55SE Valve Integrated amp and the EKCO EV55DP CD player have a vintage hue to them. Infact, the EV55SE Valve Integrated amplifier is the first vintage tube electronic product from EKCO and is designed as a Class AB Push-Pull amplifier. The EV55SE offers a choice between 28W RMS per channel at Triode mode and 55W RMS per channel at Ultra-linear mode. But EKCO isn't the only one breaking news here. Designer Audio has also got the sole Indian distribution for Castle. Castle is rare amongst loudspeaker manufacturers in that it not only manufacture the drive units and electronic components found in its speakers but also the beautifully hand-crafted real wood veneered cabinets used to enclose them. Designer Audio also houses brands such as Wharfedale, Quad, Auddiolab, Byford Audio, Vueguard and many more.



## The LG Music Flow will talk you into playing music

LG has taken the phrase 'Go with the flow' a bit too seriously and we're intrigued by what they've come up with. The LG Music Flow has a couple of USPs according to LG, which include Seamless Music Play, Ultimate Network Stability, Diverse Expansion Choices and All-in-One Music Player. The LGMusic Flow employs Mesh Network Technology and Dual Band Wi-Fi, which help in uninterrupted streaming. It can also sense your smartphone's presence when you are close to your house and will send you an SMS, giving you the option to continue playback on the Music Flow speaker at home. The top Model (H7)-NP8740 is priced at ₹52,990.

## Elite Screens launches screen with 1.1 gain

Oh, you just bought a 4K projector and are using your wall for the screen? Well, the wall is a great option, but let us suggest the Elite Screens AcousticPro-4K. The AcousticPro-4K has an ultra-white front projection screen surface with a 1.1 gain that provides great color neutrality for superb color reproduction along with wide diffusion uniformity. The angular weave is designed to handle 4K (4096x2160) and 1080p (1920x1080) projectors while eliminating the visual artifact known as moiré effect. Didn't understand a thing? Well, in simple words- it's just better than the wall.





## Intex DJ Boss

The Intex DJ Boss delivers a robust power output of 30W+30W and comes with a cordless Mic. It promises big sound and retails for ₹6000.

## Audio Technica ATH-M50x

Our favourite tried and tested AT cans come in a new dark green colour. These pack 45 mm large-aperture drivers and sound amazing.



## Asus wants us to game in 4K and has launched the Asus PB279Q

We always have good news for gamers, and this time it comes in the form of the Asus PB279Q 4K/UHD monitor. Priced at a massive ₹65,000, the monitor sports a 27in, 16:9 aspect ratio display and a pixel density of 163ppi. Not enough? The Asus Goliath has a wide 100% sRGB color gamut and 10-bit color tech. It also packs in the DisplayPort 1.2 and Mini DisplayPort that provide 4K/UHD content support.



## The Microlab MD312 available now

Yup, it does look a bit odd but this is actually a 2.1 speaker system in a single compact sound box. It has Bluetooth 2.1 connectivity and also houses the traditional AUX connection. The Microlab MD312 is highly portable and features a rechargeable battery and a hand grip that lets you lug it about almost anywhere you want it to.



## Mitashi ML 5000 promises good audio

Here's a nifty little speaker from Mitashi. The ML 5000 boasts great bass and a playback time of up to four to five hours through the rechargeable battery. There is Bluetooth onboard to take care of wireless needs along with FM Radio, AUX & Headphone Output and USB/SD (TF) Card Input. You can also answer calls. Yours for ₹3490.



## Vu launches 15 new TVs exclusively on Flipkart

After launching a curvy beast last year, Vu has a whole new range of TVs lined up for spring. In fact, there are 15 of them! Yup, that's no error, you read it right. It is officially the biggest range of TVs Vu has launched and all of them are exclusively available online through Flipkart as you read this. Through market research and customer reviews, Vu has also introduced three new product categories this year - 'Personal TV', 'Affordable Luxury' and 'Hi-Fi 4K Ultra HD'. The Personal TV category hosts television sizes from 19in to 42in. The 'Affordable Luxury' category hosts television sizes from 46in up to 65in. Prices start at ₹9000.



## B&O open doors to first official boutique

B&O, launched its exclusive boutique at DLF Emporio mall in collaboration with their India partner, BeoWorld. The outlet has been designed to provide Bang & Olufsen enthusiasts a complete experience of the brand's large repertoire of audio/visual products. While known for its luxury speakers, televisions, phones etc, the company has also introduced the BO Play range recently, which features more personal gadgets such as speakers and headphones. Its A2 speaker recently became the fastest selling product in the company's history. Entering into a partnership with BeoWorld last year, B&O now aims to provide its products directly to Indian customers. The showroom will house the latest B&O products in sync with international product launches.



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## Tannoy Arena Highline 300 5.1

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## Pioneer BDP-LX55 Blu-Ray player

True cinephiles never settle for anything less than the best. And the BDP-LX55 Blu-Ray player gives you all that you'd ever need, from pristine visuals to an easy-to-use smartphone remote.



## Benq W1080 Home Cinema Projector

The ISFccc certified W1080 serves up vivid and brilliantly detailed Full HD visuals, while features like keystone correction and short throw projection make it perfect for a home theatre of any size.



## Harman Kardon AVR-151 5.1 AV Receiver

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# READY TO ROCK

The audiophile's favourite band gets even better with snapdeal's awesome collection of Hi-Fi speakers, amplifiers, and woofers



## **Bowers & Wilkins Zeppelin Air**

It might be gorgeous but its beauty isn't just skin deep. With AirPlay streaming, smartphone remote control, and a balanced sound, the Zeppelin Air is the last word in docking speakers.



## **Onkyo DX-C390 6-Disc CD Carousel Changer**

This 6-CD changer offers Vector Quantizer Audio DAC technology and 128x oversampling, along with 6 repeat modes and 40 track programming. Just what you need to sit back and enjoy the music.



## **Marantz PM6004N1B Amplifier**

Audiophiles will be in heaven with this Marantz 2-channel integrated amp. A full sound stage, clean audio, and a wide choice of connectivity options make this a can't-miss piece of audio gear.



## **JBL SUB-250P Subwoofer**

The crisp beats of pop or the deep thump of hip-hop, this 10in subwoofer handles it all with aplomb. And with a meaty 200 watts of power, you can turn up the volume as high as you want to.



## **F&D T-80U Floorstanding Speakers**

Its elegant looks hark back to the days when rock gods ruled the concert arenas, but this floorstanding speaker system is thoroughly modern with options like USB and SD Card playback.



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## **Sony MDR 1RBT**

You'll definitely fall in love with this wireless over-ear headset, thanks to its S-Master Amplifier, liquid crystal polymer film diaphragm, and easy NFC pairing.

## **Shure SE215-CL-KCE**

This in-ear set might be just what you need for the gym or long transatlantic flights thanks to its detachable cable and sound isolating sleeves.



## **Fiio X5 High Resolution Music Player**

You'll love the dual microSD slots and the 10-band equaliser, but it'll be the high-res format support and the sound quality that make the X5 your favourite gadget.



## **JBL Go**

The little Go fits into the palm of your hand, and with its 3W RMS output, is just the piece of portable audio kit you'll always find in your overnight bag.

## **Cambridge Audio Minx Go**

Bluetooth audio can't get better than the Minx Go. A five speaker array, on-board DAC, and a long-lasting battery make it the finest portable speaker around.



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#### JBL GO

Available on Snapdeal for a tempting ₹1999, the JBL GO is a wireless ultra-portable Bluetooth speaker with mic including echo & noise cancellation.



**1 Cambridge Audio 851N**  
₹TBA This new flagship network music player features 24-bit/384kHz upscaling from all sources, plus Spotify Connect, AirPlay and Bluetooth, while high-grade components ensure the 'purest signal path'.

## TOP 5 New launches

### 2 Creative Sound Blaster Roar ₹15,999

Packing five drivers into that booklet-size cabinet seems pretty ambitious, but Creative has done it. The Roar is a 5-driver portable wireless speaker and features a bi-amplified design that utilises two amplifiers - one dedicated to driving the lows and mids, and another dedicated to delivering the highs. It also has many other features such as speakerphone teleconferencing, a MicroSD slot for MP3/WMA/WAV playback and audio recording, a siren, Bedtime Mode and Life Saver Mode.



### 3 Merlin Pocket Projector 3D Android ₹65,000

A 3D projector that fits in the pocket? Yes, please. The Pocket Projector 3D is quite a performer at 700 Lumens and promises stunning quality. The display size ranges in the 150in category with a resolution of 1280X800. It has a contrast ratio of 5000:1 and runs on Android 4.2. The DLP projector has a host of connectivity options that include HDMI, AV, USB, WIFI, VGA and WLAN.



### 5 Sonodyne SBP 101 Stereo Bluetooth Receiver ₹6000

You don't see Bluetooth Receivers often on this page of the magazine, but the SBP 101 surely doesn't fail to impress. It provides stereo line level audio output when audio tracks are played via Bluetooth from a laptop, smartphone, tablet or any other device. You have the option to directly stream to an active speaker, integrated amp or an AVR.

### 4 JBL Synchros E40BT ₹8990

With large 40mm drivers and PureBass performance the JBL Synchros E40BT Bluetooth headphone promises to deliver an expansive soundstage with clarity and precision. You can connect it to your smartphone to answer calls via the JBL Pure Konnex tech and can also stream music to another headphone that is Share Me-equipped. With such a price tag, the E40BT is something you can't miss.





STEREO SPEAKERS ₹15,000-₹30,000

# SUPERTEST

## ON TEST

Cambridge Audio *Aero 2*

Dali *Zensor 1*

Monitor Audio *MR2*

Polk *TSx220B*

Q Acoustics *2020i*

Teufel *Ultima 20 mk2*

Wharfedale *Diamond 220*

Teufel



# Giant steps

*If you've just bought a new budget hi-fi system, the chances are you can improve it hugely from the get-go by upgrading the speakers. And there are some stunning options out there...*



**W**hether you're starting out on your hi-fi odyssey or just looking for another pair of speakers, the budget speaker market is in fine shape right now. For two years the much-loved Q Acoustics 2020i battled away all newcomers. But the arrival of Wharfedale's Diamond 220 just before last year's Awards season raised the bar - and put a halt to the winning streak of the 2020is.

Both return here, alongside an array of new contenders from Cambridge Audio, Monitor Audio, Polk and Teufel, all of them jostling for pole position. The brilliant Dali Zensor 1 also returns - aiming to keep their five stars for yet another year.

This test shows that if you've already got decent electronics, then a good pair of standmounters that cost no more than ₹25,000 can really make your system shine. The question is, which speakers will make it shine the brightest? The answer is only a few pages away...





## Cambridge Audio Aero 2 ₹18,000 (approx.) ★★★★★

At first glance, the speaker looks unassumingly traditional - but look closer and you'll see that the 'tweeter' is actually a BMR driver

**We know the** Aero range fairly well. Some of its speakers make up the Aero 5.1 home cinema speaker package that's been our Award-winner in the sub-₹2lacs category for two years on the bounce.

The range's Aero 2 standmounts are not part of that particular bundle, but they are now in the budget speaker market at ₹18,000. You certainly get a lot of cabinet for your money: 37cm tall and similarly deep, the Aeros are chunky, which is not ideal for those short on space. But there are benefits to their size.

### Cabinet discussion

These Aero 2s are not the most distinctive speakers to look at: the standard MDF cabinets are rather bland and straight-edged. Still, the vinyl-wrap finish (in dark walnut or black) is tidy, well applied, and gives a classic look.

Something to note, both aesthetically

and technically, is the speaker face - at first glance the baffle looks unassumingly traditional, but a closer look above the 16.5cm woofer reveals a BMR driver.

### A clean handover

The BMR cover a wider frequency range than a conventional tweeter (250Hz to 2kHz) which moves the crossover point to an area where our ears are less sensitive to the distortions inherent in any driver handover. The result is a cleaner, well-integrated and widely dispersed sound. The soundstage is spacious and involving, filling our largest test room with precision.

The Aero's solidity and sure-footed delivery are impressive too, and the speakers don't need to be placed near a wall for this. If anything, the Aeros benefit from being pulled out slightly for better balance and tighter stereo imaging (30cm or so should do it). Play an epic orchestral track like John Williams's *Duel of the Fates* and the Aeros soar: choral vocals, frenzied strings and dominating French horns are given all the scale, authority and dynamics they require. They also render enough punch and rhythmic drive to get you on your feet during Michael Jackson's *Bad*.

They aren't the be-all and end-all in

vocal expression, however, struggling to match the Wharfedale Diamond 220s' level of insight into Jackson's emotional delivery during *I Just Can't Stop Loving You*. That said, vocals are clear and solid, and projected with such stunning focus and directness that you almost forget about the track's instrumentals.

The large cabinet facilitates the Aero's big bass, which is deep and controlled, if not as articulate as with the Wharfedales. The Wharfedales give more detail across the spectrum, too. So while you don't get the best sound from your music at this price, what you do get is an entertaining listen, especially when paired with big-sounding kit. The Aero 2s can hold their head high in a tough field.

### Rating ★★★★★

**FOR** Vast soundstage; good scale, authority and dynamics; competitive price

**AGAINST** Some rivals have more detail and subtlety; not the classiest-looking speaker

**VERDICT** A competitive performer, but not quite special enough to sit with the top rank

**Play an epic orchestral track like John Williams's *Duel of the Fates* and the Aeros soar. Voices, horns and strings have scale and authority**





## Dali Zensor 1 ₹23,700 ★★★★★☆

The partially-glossy cabinet of the Dali Zensor 1 is small and sturdy, while its design is clean and unfussy

**The superb Zensor 1s** are never far from our thoughts when recommending budget speakers – even now when, after basking in five stars for the past four years, they lose one due to the arrival of even more talented newcomers.

The Dalis remained a front-runner even after the Q Acoustic 2020i claimed their crown in 2012, but now the bar has been raised again courtesy of Wharfedale's Diamond 220s. They no longer have quite the level of subtlety, refinement or dynamics to remain in the top tier. Still, one thing tough competition can't take away from the Dalis is the fact that they're simply a joy to listen to.

### Magic within

There's no questioning their listenability: lively and musical, they make the most of Daft Punk's *Random Access Memories*. The Zensor 1s effortlessly belt out its

funky tunes, firing energy into catchy beats with a potent sense of attack and rhythmic drive. Play one of the album's downtempo tracks, *Within*, and notes emerge with definition and weight. The Dalis sound more solid and sure-footed close to a rear wall (whether stood on stands or wall-mounted) and deliver greater low-end presence when positioned there.

### Wide-open space

Considering the small size of the speakers, the openness of the soundstage takes you by surprise. You'll hear detail and balance, too. Bass is taut, and clean, sparkly highs meet a clear and communicative midrange. Dynamic insight usually makes or breaks speakers at this level, but the Dalis do not stumble. They're slick and agile enough for the piano of *Within* to come through fluidly. However, dynamics need a touch more expression (particularly in the quieter sections) and greater scale to match the Q Acoustics and Wharfedales of the budget speaker world.

The Zensor 1s, though, still have the talent to sit at the front of your system even after you've upgraded the rest of it. Paired with kit one or two price points

above – the Arcam A19 FMJ amp (₹1,68,000) and Marantz CD6005 CD player (₹44,900) combo, for example – they still shine.

Thankfully, build proves as strong as performance: their partially glossy cabinets are small and sturdy, meeting (rather than perhaps exceeding) expectations at this price. Design is clean and unfussy, although you'll have to look to Monitor Audio or Q Acoustics for something flashier.

However, the big selling point of the Zensor 1 is sound quality. And despite going down the pecking order a touch, they have certainly not fallen from grace. Overall, if you're after versatile, energetic little speakers that will entertain for years on end, then you need look no further.

### Rating ★★★★★☆

**FOR** Lively, agile sound; musical: good rhythmic drive; open, spacious soundstage

**AGAINST** Not as dynamically subtle as class leaders

**VERDICT** Although finally outclassed, the Dalis are good all-rounders – very entertaining

**Dynamic insight usually makes or breaks speakers at this level, but the Dalis do not stumble. They're slick and agile as we spin *Within***



## Monitor Audio MR2 ₹29,800 ★★★★★

As with all 'bookshelf' speakers, the MR2s should really be placed on stands to sound at their best. They're not too fussy about room position, though

**It's music to shoppers' ears** when an established hi-fi brand brings out an affordable speaker range. The BR (Bronze Reference) series was Monitor Audio's budget offering until it was replaced in 2010 by the slightly-pricier BX series. A year later, the company decided to redefine its 'meaning of entry-level' by introducing its most affordable range yet: the MR (Monitor Reference) series.

### Back to the future

Essentially, the MR series is based (given a few tweaks here and there) on the old BR range, but at a lower price. We have the larger set of standmounters here and the MR2 packs a lot of technology in for its price tag. Peeping out from underneath a protective metal-mesh grille is the company's long-utilised C-CAM (ceramic-coated aluminium/magnesium) tweeter: a rigid, yet light, composite design

gold-anodised to a specific thickness for improved rigidity and damping, while the MR2s also feature Monitor Audio's patented MMP II mid/bass driver.

Despite being at the affordable end of the company's offering, the MR2s have all the class and style we've come to expect from the brand. Beautifully finished in black oak or walnut vinyl, the front-ported cabinet has nicely rounded-off edges and a smart, yet traditional, fascia. The MR2s should be set on decent speaker stands, but they aren't too picky about placement - sat close to a wall or pulled out slightly, they're nicely balanced, detailed and as precise as they come at this price. They do sound a little less substantial out in the middle of a room, but not disastrously so.

### Delicate notes

There's a maturity to the sound that is rare at this level. As we play Michael Simone's *Any Other Name*, the MR2s shine with insightful delicacy on the intimate piano notes. The sequence is full of variation, and each key is meticulously placed within the soundstage. The MR2s are just as pleasing with vocals too, as Kate Bush proves on *50 Words For Snow*. The Monitor Audios reveal her unique

delivery and emotional nuances well - and this deftness isn't without vigour, either. It's hard to sit still during Michael Giacchino's *Married Life* (from the *Up* soundtrack): the playful, buoyant nature of the track is relayed to a T, delivering the orchestration with gusto and sufficient dynamism to accentuate its drama. Elsewhere, bass is tuneful and controlled. We find these speakers need around a 100-hour run-in for the treble to adequately integrate itself with the frequencies below, but even then they lack the refinement of some of their rivals.

Our new Award-winning Wharfedale Diamonds 220s set the bar for detail and dynamic subtlety the MR2s can't reach. And although this brings them down a level, they still do budget hi-fi very well.

### Rating ★★★★★

**FOR** Precise and punctual; enthusiastic delivery; well built; classic design

**AGAINST** Lack of refinement in treble; more subtle competition

**VERDICT** Not class leaders, but a tempting buy if you like precise and detailed sound

**There's a maturity to the sound that is rare at this level. When we play Michael Simone's *Any Other Name*, the Monitor Audio MR2s shine**





## Polk TSx220B ₹20,000 ★★★★★

The Polks are probably best in a larger room: not only are they big units, but they also sound better-balanced when placed away from a rear wall

**The TSx speaker** range is Polk's new, revamped budget offering, which replaces its long-standing TSi range. Most entry-level ranges offer one speaker under ₹20,000, but the TSx range has two: these TSx220B standmounters, and a smaller version. Three floorstanders are also in the line-up, as are two centre speakers for anyone looking to use the range for a home-cinema set-up.

### Crossover to the other side

The journey from 'i' to 'x' sees bigger drivers (16.5cm, up from 13cm) in most of the models – the layered construction used in the cones mixes pulp and polymer compounds to deliver rigidity without adding mass. Above this is the same 25mm silk/polymer dome tweeter. The crossover uses more advanced components, such as Mylar bypass capacitors (Polk says this helps produce a

detailed treble). This range also sees curved cabinets being introduced. The company claims this makes for a more rigid structure, and also helps reduce undesirable standing waves inside the box, leading to a clearer sound.

The 220Bs look nice – the box's distinct shape and tasteful 'cherry' vinyl wrap on our sample gives an imposing air for a sub-₹20,000 speaker (they're also available in black oak).

### Too edgy

The Polks are big: 37cm tall and 32cm deep. They might pose a problem for those short on space, especially considering they sound better balanced away from a rear wall. They're as solid and heavy as they look – we'd like the sharp corners and edges rounded-off slightly.

Move on to sound and we're amazed (though not hugely surprised, considering their size) at how big and powerful-sounding the 220Bs are.

The Polks blast out the boisterous instrumental in the Philharmonic Wind Orchestra's *Theme from Chronicles of Narnia: Prince Caspian* with power and scale and, given a bit of room, the speakers deliver a tonally balanced sound that's

clean and clear. Flutes soar, and the instrument has just enough separation to prevent the presentation sounding congested.

There's ample bass and good low-end extension too: drums rumble and trombones are deep-seated. Lots of bass can often mean a trade-off for speed and agility, and that's the case here, with the Polks lacking. We want them to gallop through Prince's *I Wanna Be Your Lover*, but they deliver a slow and stodgy canter. Dynamics require more punch and subtlety, too. Vocals have good clarity and focus, but the TSx220Bs can't relay Prince's snappiness.

Ultimately, the Polks rely on first impressions, muscle and scale to impress. Unfortunately for them, class rivals offer a more polished performance all round.

### Rating ★★★★★

**FOR** Big, powerful sound; hearty delivery; clear and well projected; sturdy build

**AGAINST** Lack subtlety; rivals more revealing; sluggish delivery

**VERDICT** With more subtlety and verve, the Polks could be worthy contenders

**There's ample bass and good low-end extension. But lots of bass can mean a trade-off in agility and that's the case here with the Polks lacking**



## Q Acoustics 2020i ₹25,900 ★★★★★

Q Acoustics' Concept 20 stands are a match made in heaven for the 2020is. The cheaper, Award-winning Atacama Moseco 6s are well suited too

**If Q Acoustics** wants to make sure its Award-winning 2020is retain their five stars after being usurped by the new-kid-in-town Wharfedale Diamond 220s, it's going the right way about it. After a price drop, they can now be yours for a tempting ₹25,900, as long as you want them in graphite or walnut finishes (the glossy black or white versions still carry a premium).

### Product placement

Either choice of vinyl wrap makes for gorgeous aesthetics thanks to the solid, curved-cornered cabinet, which is one of the most attractive and well built in the budget market. Compact, and unfussy with placement too, the 2020is should be easy to house. You'll get the best from them if they have a little room to breathe, but despite the rear-firing port they sound quite comfortable close to a

rear wall. Q Acoustics' own Concept 20 speaker stands (actually designed for the more expensive Concept 20s) are a match made in heaven, both performance-wise and aesthetically. If you're upgrading your other components as well, or building a system from scratch, the Marantz CD6005 CD player (₹44,900) and PM6005 amp duo will fit the bill nicely - and all for under four figures.

### With bells on

It's always a treat pressing play with the 2020is at the end of a system - and a quick spin of Broken Bells' eponymous album reminds us why. Their presentation is well balanced and exquisitely musical, demonstrating dynamic punch and agility that's usually only found in pricier speakers. There's plenty of resolution here too.

The wide-open and explicit soundstage is all-encompassing, multi-layered and precise. We play Pink Floyd's *Louder Than Words* and the 2020is deliver the song with aplomb. They give instruments body and texture, and deliver vocals with a wealth of insight. The speakers' midrange is sandwiched

by clear and refined highs, and a full, solid bass. Not afraid to reveal an attacking edge, the 2020is dig into the meaty guitar riffs. But where there's authority and verve, there's also control and poise. Guitars soar through the choir, and instrument differentiation is precise.

It's only in a direct head-to-head with the new Wharfedale Diamond 220s that we realise the Q Acoustics no longer sit at the head of the table. The Wharfedales are a touch more dynamic and subtle, and slightly tighter when it comes to timing and delivering rhythms.

Still, sonically and aesthetically the Q Acoustics are a triumph. Though trumped by slightly more talented competition, they remain exceptional speakers.

### Rating ★★★★★

**FOR** Punchy, musical, open; plenty of verve and attack; solid, compact build; beautifully finished cabinets

**AGAINST** Tough new competition

**VERDICT** The Q Acoustics remain brilliant, beautifully put-together speakers

**It's always a treat pressing play with the 2020is at the end of a system and a spin of Broken Bells' eponymous album reminds us why**





## Teufel Ultima 20 mk2 ₹15,600 (approx.) ★★☆☆☆

The gloss baffle will split opinions with its exposed screws and striking mid/bass driver. The bullet-shaped phase plug at its centre to aid integration

**Teufel might not** be a brand that springs to mind when thinking of hi-fi speakers, but the German company planted its roots in the speaker market more than three decades ago. Its budget Ultima range has been around a while - we reviewed Teufel's floorstanders in 2009. They made an impression for their affordability, and we're pleased to report that same affordability is present in the standmounts too.

### **Punching above their price**

The quality of build and finish on the Ultima 20 mk2s makes you think they belong in a higher bracket than this. Sturdy and built to last, the curvy cabinets are wrapped in a smart black finish that's clearly been applied with care. As design goes, the busy gloss baffle will surely split opinion with its exposed screws and striking mid/bass driver - its

orange-coloured cone has a bullet-shaped phase plug at its centre to help sound integration.

It's a more familiar affair around the back though: a bass reflex port sits above a single set of speaker terminals.

But are the Ultima 20s the bargain we hope they are? In short, no - but they do get the basics right. There's decent body to their sound, and presentation is fairly balanced. The Teufels happily run through everything, from Pink Floyd to Prince, with decent solidity and clarity.

### **Off the wall**

Their talents really stand out with bassy songs. Although bass isn't the tightest or most controlled we've heard at this price, the Teufels are generous. Don't put them too close to a rear wall, though - the presentation becomes a bit bottom heavy. We would put them 45cm or so away from a rear wall for best balance.

Toeing them in slightly gives vocals more focus too: Norah Jones's voice is rich and clear, although we find expression in short supply. The vocal doesn't have the trademark nuance revealed by the best sub-₹25,000 speakers. It seems the Ultima 20s opt for

substance over transparency and, ultimately, a lack of detail across the frequencies is their undoing - they don't possess the subtlety or dynamic insight to challenge the very best.

### **Trouble at the top**

We'd like more refinement in the midrange and top end, too. The midrange can feel shouty, making the presentation sound uncomfortably edgy, while treble can sound scratchy. Couple that with a lack of spaciousness in the soundstage and you have a presentation that is at times troubled by higher volumes, and messy during playback of dense music.

So while the Ultima 20 mk2s show promising foundations (good build, fair clarity and balance) they fall well short of being a product we'd happily recommend.

### **Rating ★★☆☆☆**

**FOR** Rugged build; neat finish; decent bass levels; clear and direct

**AGAINST** More talented competition; lack detail and refinement; not very dynamic

**VERDICT** Good build and striking design can't make up for performance flaws

**The quality of build and finish on the Teufel Ultima 20 mk2s gives the impression they belong in a higher price-bracket than this**

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## Wharfedale Diamond 220 ₹23,000 ★★★★★

The solidity and authority of the Diamond 220s relies on them being placed near a wall. Pulled too far out in the open, and that sure-footedness is diluted somewhat

**Wharfedale took our** one grumble (a poor finish) about the mainly superb Diamond 121s on the chin and rectified it in their replacement, the Diamond 220s. The result? A brilliant-sounding speaker with a neat design that also became an Award-winner, ending the two-year reign of the Q Acoustic 2020is. The prices have come down a bit since our first review, too.

### Smooth finish

The composite cabinet of chipboard and MDF remains from the 121s, but now the smoother MDF panels have been moved to the outside, so the vinyl glues on better. The blackwood vinyl on our sample is ripple-free (walnut pearl, rosewood quilted or white finishes are the other options) and there are other improvements too: below the same 25mm soft dome tweeter is a 13cm woven Kevlar mid/bass driver, now with a bigger

magnet, said to make it easier to drive and improve responsiveness. There's also an improved crossover for better integration.

### Whole lotta Led

Also, the unusual slot-loaded port, first seen on the 100 series, has been tweaked to reduce distortion. Rather than the popular bass-reflex design, this port fires downwards into a small air gap between the cabinet and plinth below, helping port efficiency and making the speakers less fussy about placement. The arrangement pays off: surprisingly for their size, the Wharfedales have the low-end ability to eat up even the thickest basslines (Led Zeppelin's *Dazed and Confused*, for example). Bass is deep and agile too.

There's a sense of power and scale we'd normally expect from a much larger box than the 32cm-tall Diamonds. Their solidity and authority throughout the frequency range relies on placement near or against a rear wall: pull them out too far in the open and that sure-footedness is diluted slightly - bass notes are looser and vocals lose a bit of substance. Talking of vocals, the 220s' clear and candid delivery is very expressive - run through Eminem's *Relapse* album and his choppy raps are

communicated effortlessly. The good news continues where integration is concerned, with everything tying together nicely.

It's the Diamonds' level of insight and dynamic aptitude that really lifts them above their peers. In Grieg's *Piano Concerto*, instruments are packed with variation and subtlety - piano sequences are fluid and telling, violins textured. Dynamic presence in even the quietest sections helps convey the gradual build of the piece. The 220s seem as happy delivering drama - as the orchestration gains impetus, they simply go along with the ride.

The talented Diamond 220s will likely be the jewel in the crown of any budget - or even mid-range - set-up. Would we go as far as saying they're one of the best hi-fi products you can buy below ₹25,000? Without a doubt.

### Rating ★★★★★

**FOR** Agile, far-reaching dynamics; overflowing with detail; deep, controlled bass; balanced; huge scale and authority; neatly finished

**AGAINST** Nothing

**VERDICT** Having ironed out the creases of predecessors, the 220s really are hard to fault

**Surprisingly for their size, the Wharfedale Diamond 220s have the low-end ability to eat up even the thickest basslines**

# TEST VERDICT

## THE WINNER

### Wharfedale Diamond 220

₹23,000 ★★★★★



In a highly competitive field, the **Wharfedale Diamond 220s** manage to retain their title by offering verve, value and plenty of versatility

**T**he budget speaker market is so competitive and dynamic right now that revisiting our favourite models on a regular basis has become imperative. The revised status of the Dali Zensor 1s in this test shows why. Although their five-star standing managed to survive the arrival of the more talented Q Acoustics 2020i in 2012, the Zensor 1s have finally conceded a star – and all due to the even more remarkable Wharfedale Diamond 220s. We still like the Dalis immensely, even if they are ₹700 pricier than the test-winning Wharfedales. The Zensor 1s are bags of fun to listen to: fast, musical, and with a good grasp of rhythms. They're great if you need speakers that must sit against a wall too.

#### Esteemed colleague

The esteemed Q Acoustics, on the other hand, preserve their five stars for ₹25,900. Would we still buy the Wharfedales? Sure, but that doesn't detract from the fact the 2020is are fantastic little speakers – open, punchy, dynamic, and happy to perform wherever they're placed in a room.

Now for the test victor. The Wharfedales keep the title they battled so hard for in last year's Awards season. The Diamond 220s are budget hi-fi at its very best – the speakers have a wonderfully informative, measured, yet musical sound that will make them enjoyable additions for your microsystem or hi-fi separates for years to come. The Wharfedales are comfortable partners with electronics double (even three times) their price, too. Put them to use with transparent speaker cables and decent stands, and they won't disappoint.

#### Best of the rest

Of the speakers that are new to our test rooms, there are good and not-so-good performances. The Monitor Audio MR2 and Cambridge Audio Aero 2 are the best of the rest, with four stars apiece. The MR2s are yet another solid entry from the British company, flying the flag for precision and scale, but lacking absolute refinement in the treble. The Aero 2s, meanwhile, meet our expectations for the company's successful Aero range, and appeal with a big and dynamic presentation.

As with the Dalis, though, neither can quite muster enough detail, nor render the dynamic subtlety needed, to compete with the very best in this group.

#### A lack of get-up-and-go

Moving down the pecking order, we have the Polk TSx220Bs. Demonstrating as much solidity in their rugged build as in their performance, the TSx220Bs are hearty performers. Decent scale and bass are the big plus points, but ultimately they lack enough insight, or the get-up-and-go needed for our music. A low entertainment factor leaves the Polks languishing behind the rest of the field.

Handing out two stars isn't something we take joy in, but the Teufel Ultima 20 mk2s leave us with little choice. Their solid build and big, bassy sound (in a positive way) is outweighed by a dynamically flat, and not particularly detailed or refined, delivery.

In most tests, there will be products we'd give a wide berth to (the Teufels being the case this time) and others we cannot praise highly enough. The Wharfedales earn that distinction.





# Ear me now

We've got a round-up of six of the coolest pairs of over-ears that will have you grinning from ear-to-ear as you take your movies or music on the move





## Audio Technica ATH-M50x

### ₹13,499

1

**Occasionally, you just** want something that gets the job done. That's the case with the Audio Technica ATH-M50xs: no-fuss, portable over-ear headphones, with very good sound.

Beyond the most basic flourish (silver ring and a logo), there's very little song and dance about them. We think of them more as a tool than a fashion accessory, which is just fine.

There's a lot of plastic, but it's the good kind, and it feels strong enough to withstand a lot of punishment. Earcups swivel 180 degrees and can fold inwards too. Now, if only the cable had an inline remote/mic unit...

These headphones offer an enjoyable listen. Vocals and instruments are afforded texture, and are nicely separated on an organised soundstage. It's an immersive experience.

It's not quite perfect, however. We could do with more dynamic punch, and more clarity would help treble sparkle. But if you're looking for a portable pair of over-ears and you like your sound a little warm, for the money the Audio Technica ATH-M50xs are worth checking out.

#### Rating ★★★★★

**FOR** Decent detail; good separation; good sense of life

**AGAINST** Need greater clarity and dynamic punch

**VERDICT** A great effort from Audio Technica: these are a good pair of portable over-ears

## Philips Fidelio M1MKII

### ₹10,999

4

**As the name** implies, these are a second take on the Philips Fidelio M1s. You might not know it, because they look virtually identical, but that's no bad thing, because the M1s were lovely.

The MKIIs have a light yet sturdy body of mostly metal and leather. The earpads of memory foam sit snugly, providing a good deal of passive noise isolation. Internally, the new design boasts a lighter voice coil, extended high frequencies and more accurately tuned bass. It certainly works: while the looks have barely changed, the sound is a clear step up.

There is an abundance of detail, only now it is accompanied by a larger sense of space, with more precision and greater clarity. It's a fun listen. There's plenty of punch, with tight timing and strong dynamics. The bass is weighty as ever, but now it's tauter and better defined.

The high end is natural and sweet, and vocals have room to breathe. If you're looking for great portables under ₹200, you've found them.

#### Rating ★★★★★

**FOR** Smooth delivery; weighty bass; comfy; nice design

**AGAINST** Nothing really at this price

**VERDICT** A superb pair of portables for under ₹15,000 – the MKIIs are everything we could hope for

## Focal Spirit One S

### ₹29,990

2

**Take a look** through the Focal Spirit One S webpage and you'll find a load of stuff about 'digital nomadism'. Don't worry, Focal isn't raising an army of audiophile travellers – it's an erroneously translated statement of intent from the company, about excellent sound on the go.

So, nomadism: these Focals are certainly light enough to be lugged about. And despite the lightweight materials (which don't feel very luxurious), these Focals are solid. Their limited folding and swivelling skills mean they're not as compact as we'd like, but at least you get a cloth bag and chunky, hard case for stowing them.

As for the sound, these are a lovely, easy listen. It's a balanced sound, never leaning too hard on any particular part of the frequency range. Punch and accuracy of timing are good enough to convey a strong sense of energy.

We'd like a bit more clarity and sparkle, though, particularly around the treble, which feels a little closed-in. The Focals also lack some thrust. We like the smooth sound, but feel the Spirit One S's character is at times too laid-back.

#### Rating ★★★★★

**FOR** Smooth sound; decent detail and timing

**AGAINST** Need more oomph; materials lack luxury

**VERDICT** Another fine pair of headphones from Focal, but they are not the punchiest

## Samsung Level-On

### ₹20,400\*

5

**Samsung is not** the first name that springs to mind when we think of headphones. The company is trying to change that. The Level-Ons didn't set our world alight – so will the Level-Ons? Sadly, no. It's not near the level of sound quality we expect for the price. It's not that they do anything particularly badly – it's just, for the money, we expect something special.

Instruments are not as distinctive as they are on similarly-priced rivals. The Level-Ons are not very agile either. We'd also like a greater sense of space and definition. Drumbeats, for example, could be tighter. To make matters worse, these are designed with Samsung Galaxy devices in mind – controls don't work with other devices.

They're well made and comfortable to wear and fold up for stowing away, with a nice zip-up hard case. But our second encounter with the Samsung Level range is a disappointment. They don't do any one thing wrong, but for the money, we expect them to get more things right.

#### Rating ★★★★★

**FOR** Sturdy construction; comfortable

**AGAINST** Not engaging; not that dynamic or clear; price; remote only works with Samsung Galaxy devices

**VERDICT** Disappointing and overpriced

## Grado SR125e

### ₹10,560

3

**When it comes** to Grado, some things just don't change. You have to take them for what they are. Many of our comments about the Grado SR125es will have been said before, and will be again. You won't buy them for their design, which is unashamedly idiosyncratic. They look like a headset for a 1950s shortwave radio.

The SR125es are sturdier than they appear, with swivelling ear cups and detachable foam-pads attached to a thin band of faux-leather, courtesy of some short metal rods.

You won't buy the SR125es for their noise isolation. Indeed, Grado seem to design their headphones with the very opposite in mind. These are about as open as can be. Don't wear these on a bus – the Grados are supposed to be experienced at home, on your lonesome. They're awesomely detailed, with impressive texture. The open back affords them plenty of space, and so the soundstage is very wide.

These Grados pound along with pace and energy: overall, you have great performance for the money, with detail, precision and musicality.

#### Rating ★★★★★

**FOR** Spacious, detailed, well-timed sound; comfortable

**AGAINST** Distinctive looks and leaky sound

**VERDICT** Another talented performer from Grado – just keep them at home

## Sennheiser Urbanite

### ₹TBA

6

**Headphones have become** more flamboyant in recent years. Hence the Urbanites, which promise "urban style on the move".

What you get is a chunky metal headband, part of which is covered in fabric and rubbery plastic. The rest of it has a metallic paint job, which extends to the plastic earcups. These fold inwards, while a flat cable fights tangles. Build quality is strong, overall.

Audio-wise, these Sennheisers have a punchy sound, which is mainly due to the bass, which is somewhat exaggerated. There's an undeniable emphasis on the low end. It's well defined: listen to Lorde and the sparse basslines are taut. This definition means the sound is clear, and there's a decent amount of detail on hand, but we wouldn't go so far as to call it natural. The midrange isn't as expressive as we'd like. Vocals are less detailed, less subtle and less direct.

The Urbanites are a good pair of 'phones by Sennheiser, but not the best around.

#### Rating ★★★★★

**FOR** Strong, well-defined bass; solid build; stylish

**AGAINST** Midrange could be more open and expressive; need more subtlety and rhythmic precision

**VERDICT** Loud in style, sound, but not well-rounded

# JARGON BUSTER

## Loudspeakers

Choosing the right pair of speakers is fundamental to your enjoyment of recorded music, so it may help in knowing a few technical terms so you won't be bamboozled when it comes to making a purchase

### Coloration

Any tonal alterations or distortion added to the original signal can be classified as colouration.

### Crossover

The circuit inside a speaker that splits, or filters the incoming signal, sending high frequencies to the tweeter and midrange/bass to the woofer.

### Dynamics

A speaker's dynamic ability is the way it goes from quiet to loud and back. The best speakers manage this quickly, in a smooth sweep. The difference between the quietest sounds the speaker produces and the loudest is called the dynamic range.

### Sensitivity

A measure of how loud a speaker will go for a given input power. Typical values are around 89dB/W/m. Every 3dB of sensitivity means you'll need only half the amplifier power to go as loud.

### Tweeter

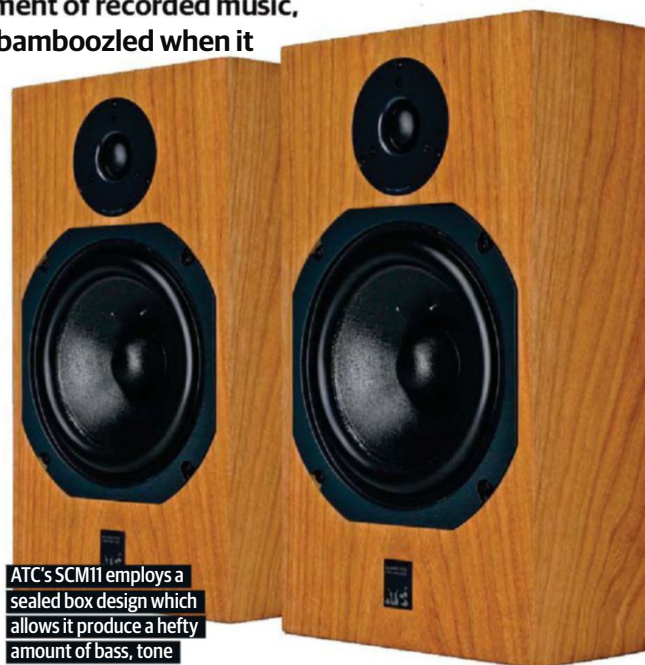
A type of loudspeaker usually shaped like a small dome (but can also look like a cone) that's designed to reproduce the high frequency sounds.

### Bi-wire

Speakers that are bi-wired have two pairs of speaker terminals. This allows for two connections to be made between the amplifier and the speaker; one for high frequency sounds and another for mid/bass frequencies.

### Woofer

Usually the largest drive unit. It's designed to deliver low frequency sounds. Can be used in multiples to increase output.



ATC's SCM11 employs a sealed box design which allows it produce a hefty amount of bass, tone and detail



It's claimed that bi-wiring produces a clearer, expansive sound thanks to high and mid/bass frequencies being sent through two pairs of speaker cables instead of one

## What does a speaker crossover do?

It's one of the inescapable laws of physics – and of hi-fi design – that a loudspeaker containing only one drive unit won't be able to reproduce the entire frequency spectrum as deftly as one with multiple drivers.

Tweeters and mid/bass drivers are designed to handle different parts of the frequency range with the minimum of distortion and the maximum finesse.

However, sending the full frequency range to both of these drivers will stop them working at their best or even cause damage, so a crossover circuit is used to split the incoming signal into frequency bands optimised for the different drivers.

There are two crossover types: passive and active. Passive ones, used in most domestic speakers, are unpowered and deal with speaker-level signals that amps deliver from their speaker outputs. Because the current they have to deal with is so high, they use robust (and so, less precise) components. This can lead to a loss of detail and transparency.

Active designs are powered, and route a low-voltage line-level signal to the drivers' individual power amps. There's less power loss, although they can add noise. But the smaller power-handling needs let them use more precise parts, which gives more control over the sound.



Q Acoustics 2050i, £460





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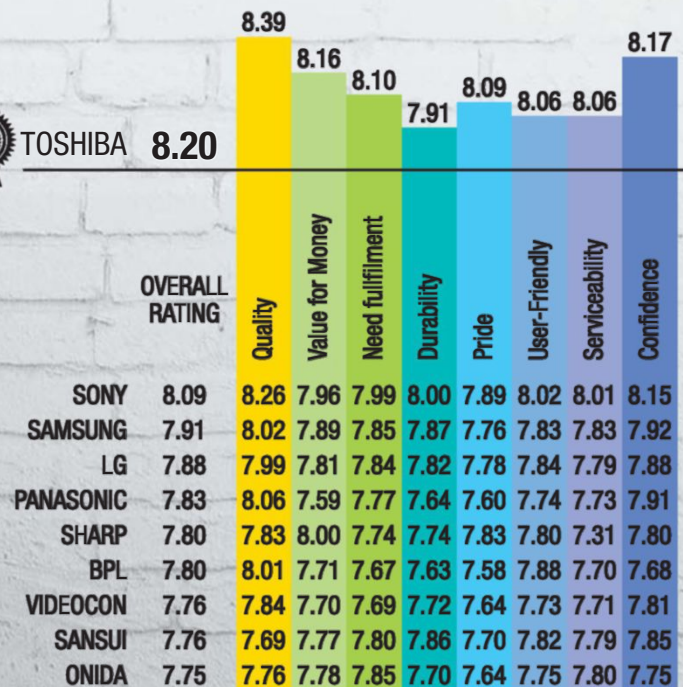
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# All things considered

AV amplifiers are the engine room of your home cinema, and these two Dolby Atmos-toting high-end heroes are at the cutting edge





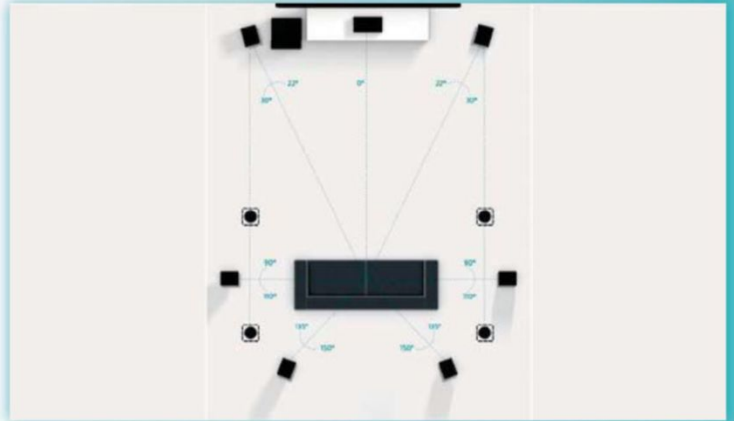
**In this formidable** head-to-head, we're pitting two powerhouse performers against each other. Pioneer and Yamaha have reputations to uphold, after all. They've dominated this end of the market for years, and each is hoping to offer the ultimate home cinema experience with their flagship AV receiver. Both cost around ₹1,80,000, both promise a stunning home cinema sound, and both are kitted out with the latest features - including Dolby Atmos.

We've been eagerly awaiting the arrival of these two amplifiers to get our first taste of Dolby Atmos in a home environment.

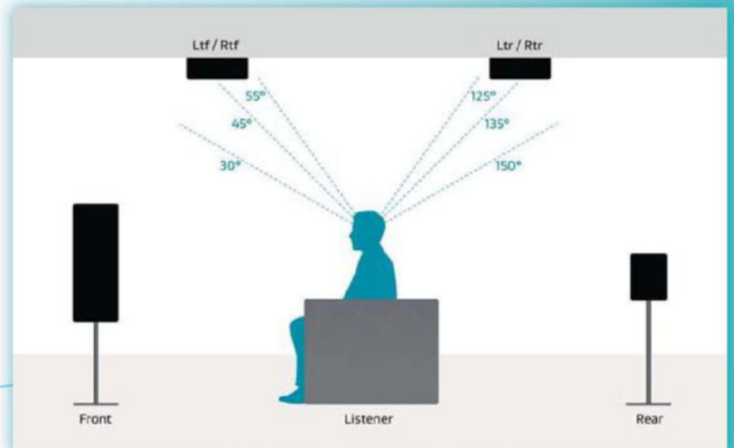
Dolby Atmos adds a whole new dimension to your cinema experience by adding overhead sound to create an immersive, dome-shaped soundfield.



## Dolby Atmos



**Luckily, you don't** have to completely overhaul your existing home cinema system if you want to upgrade to Atmos. You will need a new AV receiver that's capable of decoding Atmos soundtracks - such as the Pioneer SC-LX88 and Yamaha RX-A3040 on test here. But you won't need to replace your Blu-ray player, or your existing 5.1 or 7.1 speaker package. You'll simply need to add matching pairs of in-ceiling or upward-firing speakers to create that dome-like, enveloping Atmos sound.



**The maximum ideal** lay-out for a home Atmos set-up is 7.1.4 - that is, seven surround speakers, one subwoofer, and four Atmos speakers placed above. However, since Atmos is scalable, you can start off with a minimum of 5.1.2, and then add more speakers if you want to expand. The idea is that the more speakers you add, the greater the detail and immersion.

Whether you choose in-ceiling or upward-firing speakers, positioning them in your room is key for delivering a seamless sound around your room. Upward-firing speakers will need to be angled correctly so that sound bounces off the ceiling at the perfect angle to reach your listening position, and give that Atmos-specific impression of sound coming from above.

Spoiler alert! It works, and it sounds fantastic.

### HEAD TO HEAD

#### FACTS & FIGURES

	Pioneer SC-LX88	Yamaha RX-A3040
Rated power	9 x 250W	9 x 230W
HDMI in/out	8/3	8/2
Dolby Atmos	Yes	Yes
3D	Yes	Yes
4K 60p	Yes	Yes
Wi-fi	Yes	Yes
Auto set-up	Yes	Yes
Dimensions (hwd)	18.5 x 43.5 x 44	19 x 43.5 x 47
Weight	18kg	20kg

The SC-LX88 is punchy, taut, and agile. We love its crisp, clean sound and the razor-sharp precision with which it handles a film's soundtrack. It has that satisfying, meaty punch that's missing on the Yamaha



The SC-LX88 builds on Pioneer's traditional AV amp strengths by adding a dollop of controlled heft

Labelling is not great, but the Atmos speakers plug into the 'surround back' and 'front wide' terminals



## How to set up

### Atmos on the Pioneer SC-LX88

Pioneer hasn't labelled the terminals for Atmos speakers clearly, so you'll have to run the set-up and use the on-screen graphics to make sure the speakers are plugged into the right terminals. We discovered the Atmos speakers need to be plugged into the 'surround back' and 'front wide' terminals. In the speaker system menu, choose the 5.2.4 option for a standard 5.1 speaker

package layout with four added Atmos speakers. This works for a 7.1 system, too, although you can opt to use the 7.2.2 layout if you want to add only two Atmos speakers to your existing seven speakers. You can then assign 'Dolby Sp' status to the added Atmos speakers in speaker settings. Finally, make sure your Blu-ray player audio output is set to 'bitstream' (not PCM) before you start playing an Atmos Blu-ray disc.



# Pioneer

## SC-LX88 ₹1,73,990 ★★★★★

**WHAT HI-FI?**  
**TEST WINNER**


**Pioneer goes from strength to strength.** The SC-LX88 carries all the hallmarks of a top-end Pioneer receiver - fast, precise, superb layers of detail - and adds a powerful dose of muscle to make things even more exciting than before.

That surge of power isn't the only exciting aspect of this ₹1,73,990 nine-channel home cinema amplifier. Alongside the extensive streaming, connectivity and file compatibility, the SC-LX88 features Dolby Atmos.

### Atmos hits the spot

We dive straight into Atmos mode with a Blu-ray of *Transformers: Age of Extinction* (there are more titles coming with Atmos soundtracks, but we have to contend with this Michael Bay sequel for now) - and are blown away by just how fluid and dynamic Atmos sounds. The soundfield opens up, the added speakers give a serious sense of height, and the way Atmos is encoded means that objects move around the room more organically than before.

It's subtly done. Effects don't jump out at you from above, instead Atmos simply allows a bigger, more spacious soundfield. You get the sense of drones and helicopters sweeping from the middle of the room and hovering above. Bullets ricochet through you rather than around the outskirts of the room where speakers are positioned. And distant chirps of birds really do feel distant and located somewhere above rather than, say, in the front-right speaker. It's a powerful sound and hugely immersive.

It takes us switching down to a standard 5.1 or 7.1 Dolby TrueHD soundtrack to truly appreciate how much Atmos adds to the cinematic experience. The sound is suddenly smaller and you're aware of the height limit imposed by your ceiling.

### Impressive in standard mode

But that doesn't mean the Pioneer is a slouch with standard 5.1 or 7.1 set-ups. Its core performance is stunningly impressive and capable, Atmos or not.

While it doesn't sound as huge and grand as the Yamaha RX-A3040, the Pioneer amp gets everything else right. It's punchy, taut, and agile. We love its

crisp, clean sound and the razor-sharp precision with which it handles a film's soundtrack. It has that satisfying, meaty punch that's missing on the Yamaha.

With *X-Men: Days of Future Past* playing, we're sucked into the action from the get-go. There are layers of punchy detail keeping us captivated with every scene and line of dialogue. Voices are clear and direct (unlike the Yamaha) and packed with character, even at lower volumes.

The SC-LX88 has a wonderfully even tonal balance - highs sparkle with no hint of brightness, while the low end rumbles with insight. There's depth and complexity to Magento's metal-bending, excitement to the prison break scene, and the beautiful melody of Jim Croce's *Time In A Bottle* in the slow-motion kitchen scene is stunningly immersive.

Pioneer's acute grasp of rhythm and punch lends itself well when playing music. With a live concert on Blu-ray, the Pioneer delivers the plucks, twangs,

Unlike the Yamaha, aptX Bluetooth is built into the SC-LX88, and there's a type-B USB input for directly connecting your laptop. Wired and wireless connections are available (both are stable) and you can, of course, play songs stored on any NAS device or laptop plugged into your home network. File support is extensive, with high-resolution 24-bit/192kHz WAV, FLAC and AIFF files playable via DLNA and USB. It also supports DSD files.

There are eight HDMI 2.0 inputs and three outputs, all capable of playing Ultra HD 4K and 3D content. SACD discs are also supported, and there's even a phono input for your turntable.

Neat, sleek and a great hulking mass of metal - the Pioneer SC-LX88 ticks all the right design boxes. Available in black or silver, the SC-LX88 is beautifully machined, sturdy, and its large display is pin-sharp and easy to read. The dials are responsive and lovely to use, too, as is the responsive remote-control wand.

**We are blown away by how dynamic Atmos sounds. The soundfield opens up, the added speakers give a serious sense of height, and the way it's encoded means that objects move around the room more organically**

thumps and vocals with plenty of style and perhaps a bit more oomph than necessary. We'll take that extra solidity over a thin, coarse sound any day.

Playing songs through USB sounds more solid and cohesive than Bluetooth, although both have a decent sense of excitement, detail and agility. Make sure you've switched to stereo mode when listening to music - it makes songs sound more focused. If you're aiming for long listening sessions, though, we would still guide you towards a dedicated stereo amplifier. The same would apply to the Yamaha.

Befitting a flagship product, the SC-LX88 has an exhaustive selection of streaming features and connections. Apple users can stream using AirPlay, while Spotify Connect and internet radio provided by vTuner opens up a world of music discovery - you'd be hard-pressed to run out of things to listen to here.

We just wish the Pioneer came with clear instruction on how to get Atmos speakers up and running with the amp - you have to explore the manual speaker settings. Our biggest complaint is that the back of the panel doesn't state which terminals are for Atmos speakers.

That apart, we can't stop praising the SC-LX88. It strikes a mature balance between subtlety and power, and offers a wealth of features that blow away the competition. It has a captivating sound that will keep you entertained for hours.

### Rating ★★★★★

**FOR** Stunning detail and clarity; powerful and precise; wide soundfield; build; supports Atmos

**AGAINST** Speaker terminals for Atmos speakers are not labelled clearly

**VERDICT** A staggeringly powerful and entertaining amp that's unrivalled at this price

The Yamaha RX-A3040 has the latest streaming features: Spotify Connect, Napster and vTuner internet radio. Anyone with Apple devices can stream songs over AirPlay, and charge an iOS device with the USB panel



The aluminium-clad Yamaha receiver has a sturdy, well-built chassis, giving a premium feel. It's a hefty unit too

## How to set up

### Atmos on the Yamaha RX-A3040

Plug your four Atmos speakers into the front and rear-presence speaker terminals (if only using two Atmos speakers, pick the fronts only). In the manual speaker settings, set the amp assign mode to 'Basic' if you have a 5.1 or 7.1 speaker package. Delve into the speaker configuration menu for the layout subfolder, where you can tell the Yamaha if your additional Atmos speakers are

upward-firing (labelled Dolby Atmos SP in the menu), in-ceiling or standard height speakers. Run the auto set-up to ensure your Atmos speakers are being recognised and emitting a tone – the on-screen graphics will show if they're in the right position or not. For the Yamaha to decode an Atmos soundtrack, it needs to be set in the surround mode. Press the 'surround decode' button on the remote and the amp is ready.





# Yamaha

## RX-A3040 ₹1,85,000 ★★★★★



**The first impression** we have from the Yamaha RX-A3040 is one of scale. This nine-channel amplifier sits at the top of Yamaha's celebrated AVENTAGE range of AV receivers, and duly shows off its flagship status with a mammoth soundfield. And that's before we even get to Dolby Atmos.

Play the *Edge of Tomorrow* Blu-ray (with 7.1 DTS-HD Master Audio) and the soundfield is huge. You get a real sense of the scale of the battlefield. The distant sounds of fighting, the helicopters overhead and the bursts of gunfire – all are delivered with plenty of detail.

### Transformative sound

Yamaha excels in surround-sound effects, and the RX-A3040 steers the violent whirring of the alien tentacles through each speaker with power and precision. There's a satisfying rumble to basslines, and the quieter moments have space to breathe. If a standard 7.1 soundtrack sounds wide and spacious, then Dolby Atmos sounds even bigger. And taller. We play *Transformers: Age of Extinction* (currently the only Blu-ray film available in the UK with an Atmos soundtrack) and the ceiling of our test room virtually disappears. It's less about what objects you can hear above you, and more about the space that's just opened up for a bigger, more cinematic experience. It sounds more powerful, too.

### Trading subtle for 'big'

But it's not all plain sailing for the RX-A3040. It's not quite as punchy as we'd have hoped. Impacts could be stronger and tauter. Compared with the Pioneer, there could be more detail and refinement overall too. It seems that in going for a bigger sound, Yamaha has traded in some of that finer subtlety and agility for an increase in soundfield scale. This affects voices, too, which aren't as direct or nuanced as with the Pioneer, which does a more successful job with its razor-sharp precision and subtler delivery of dialogue.

A rounded-off, smooth approach is in keeping with its predecessor, the 2013 Award-winning RX-A3030, and makes the RX-A3040 an easy listen. It performs well enough when it comes to music, although our misgivings about rhythmic punch

again come to the fore – the stop and start of notes could be more distinct, and songs played via USB sound a tad more solid and cohesive than streamed over Spotify. Yamaha has a variety of fun sound programs (which are more successful than those of its rivals), but we'd pick 'stereo' mode for the most cohesive performance with music.

The RX-A3040 has the latest streaming features: Spotify Connect, Napster and vTuner internet radio service. And anyone with Apple devices get a good deal – you can stream songs over AirPlay, and also plug your iOS device into the front panel USB for playback and charging features. You can even transfer your device's wi-fi settings to the receiver via USB.

For other devices, you can stream music over your home network. Wired and wireless network connections are both stable, and DLNA certification means you can stream songs stored on a laptop or NAS box as long as they're connected to the same network. The Yamaha receiver

buttons and additional inputs are neatly hidden away under the panel.

Whether you have a standard 5.1 speaker package or are setting up the full Atmos experience, it's imperative you run the auto-calibration to optimise the RX-A3040's sound with your speakers and your home cinema room.

### Atmos instructions would be nice

And on that note, we do wish the amplifier came with clear, detailed instructions on how to set up Atmos speakers. To get everything up and running properly involves delving into the manual speaker settings to choose the correct speaker configuration, assigning your extra speakers as Atmos, and ensuring the amp is set to surround mode.

The standard remote control is nice in hand, and swiftly changes inputs or volume (the remote's 'surround decode' button is crucial when playing Atmos soundtracks). But for those wanting to use their smartphone or tablet, the AV

**Play *Transformers: Age of Extinction* and the ceiling virtually disappears. It's less about what objects you hear above you, and more about the space that's just opened up for a bigger, more cinematic experience**

can handle high-res files of up to 24-bit/192kHz in WAV and FLAC formats over DLNA and USB. Android users can also directly stream HD content using the MHL input on the front panel. Unlike the Pioneer SC-LX88, Yamaha doesn't include built-in Bluetooth. It is possible to get, but you'll have to plug in the YBA-11 receiver (around ₹50) to receive it.

The RX-A3040 has an extensive list of connections: eight HDMI 2.0 inputs are the highlight, all of which support Ultra HD 4K pass-through and upscaling, and Full HD 3D content. There are two HDMI outputs, two dedicated subwoofer outputs, and a host of digital and analogue connections on the back panel. You can plug in older AV kit that don't feature HDMI, with multiple component and composite sockets available, too.

Available in black or titanium, the amplifier has a clean fascia, crisp display, and intuitive control dials. Various control

Controller app is worth downloading and is free for Android and Apple users.

If our judging was based purely on how big and spacious an AV receiver sounds, the Yamaha RX-A3040 would win. It's powerful, but is let down by failing to deliver the subtlest, punchiest and most captivating performance that this money can buy. At this price, that honour goes to the stunning Pioneer SC-LX88. But still, the RX-A3040 is capable of playing Atmos soundtracks admirably. It's well worth an audition.

### Rating ★★★★★

**FOR** Wide, spacious and tall soundfield; powerful and accurate surround steering; build and features; easy to use; supports Atmos

**AGAINST** Could be punchier, tauter and more transparent; no built-in Bluetooth

**VERDICT** A smooth, yet powerful amp



“Mind blowing experience at the WHAT HIFI 2015,  
Auro 3D and JBL Booth.”

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#### Contact Information

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M : +91-0-99670 44276

E : aditya@auro-technologies.com

[WWW.AURO-3D.COM](http://WWW.AURO-3D.COM)



# TV

## ON A STICK

### **T**elevisions are changing.

They're getting alarmingly smart. On-demand content, catch-up services and mobile integration have all become standard features. Soon, TVs might even gain sentience.

But what if you have an old, dumb TV that is still going strong and not in urgent need of replacement? That doesn't mean you deserve to miss out on all the streaming fun. And you don't have to. We've assembled a handful of streamers for you, each offering varying features and price tags. Go on, row your boat this way...

#### **What's on test**

- Apple TV
- Google Chromecast
- Roku 3
- Roku Streaming stick



Apple TV ₹7500 ★★★★★



**It is a** truth universally acknowledged that Apple will always do its own thing. Take media streamers, for example. This sector has changed a great deal in the last year alone, but the folks at Cupertino have done little to the Apple TV.

The company simply calls this the Apple TV. Its real name is the Apple TV (3rd generation) Rev A. That is to say, this is a slightly tweaked version of the Apple TV released in 2012.

Its chipset has been redesigned to use less power. It costs less to produce, and the retail price has come down a little. Essentially, this is a device launched about three years ago. Is it a fossil, or a timeless design?

### Members only

First, some ground rules. This is Apple, so things inevitably fall a certain way. The priority is iTunes and Apple devices. If you don't have an account, or a Mac computer, or an iOS device, you will not get the most out of the Apple TV.

This is Apple's way, which contrasts with the Google Chromecast's welcoming approach to iOS and Android devices alike. It's frustrating, but not surprising.

**It's beautifully made, and a dream for Apple devotees. Others will find little to enjoy**

If you've joined the club, you're in for VIP treatment. The Apple TV can play anything and everything you've bought through iTunes. You can also mirror the screen of your Mac or iOS device using Apple AirPlay over your home's network.

### Bypass your network

The latest firmware allows direct AirPlay between the Apple TV and devices running either iOS8 or OS X Yosemite - with no need for a network.

If that's not enough for you, you can buy or rent films, shows and music right there on the Apple TV. The shop front is right at the top of the screen, in a carousel. You have access to Apple's entire library right there, so you can watch until you dry out your eyes (or bank account). Video quality is good, going up to 1080p. You also get Dolby Digital 5.1 passthrough, where applicable.

Tired of iTunes? There is... not much else. The app offering is meagre compared with others here. The only stars are Netflix, Now TV and YouTube.

We are well familiar with Apple's 'walled garden' approach, but it's hard not to be frustrated in this age of choice.

And it's not like you can bring your own bottle to the party, either: you can't stream from your networked computer or NAS drive, nor add a USB stick.

The device has the following ports: power, HDMI out, microUSB (for service only), optical out, and ethernet. There's wi-fi too. Naturally build quality is faultless, and it gets better still when we caress the remote control, a minimalist wand of aluminium. Operation is typical of Apple: super-slick (although set-up and firmware updates are fiddly).

The Apple TV is a gorgeous piece of kit, and for those who have bought into Apple's way everything is lovely. But we don't think that's enough anymore, especially when similar money buys the versatile Roku 3. Loosen up, eh, Apple?

### Rating ★★★★★

**FOR** Smooth operation; excellent integration (for Apple devices)

**AGAINST** Limited app options; too closed for non-Apple users

**VERDICT** The ideal streaming partner for Apple users, but not much choice for anybody else



# Google Chromecast ₹2999 ★★★★★



**TV on a stick!** That's what Google promised with the Chromecast. And while it has made waves in the US in the past year, it is fairly new to UK shores.

## Cast away your preconceptions

The first thing you need to know is that this is not a streamer in the traditional sense. You do not boot it up and choose from a content menu. Instead, you 'cast'.

Casting is Google's funky new way of streaming, built around the notion that most people have wi-fi at home and smartphones in hand. You begin with a mobile app. Find content you like, tap the 'cast' button, and it pings up on your TV. You don't actually send anything directly from your phone (or tablet) to the screen. It conspires with the Chromecast over your wi-fi network. The phone merely acts as a remote control, while the Chromecast plucks content directly from the internet.

The idea is to do away with boxes under the TV, along with the fight for the remote. Just find what you like on your phone, and push it to the big screen. Easy.

If there is a catch, it is the matter of compatibility: not all apps can cast.

**One small stick for mankind: a new way of accessing all kinds of web-based content**

Chromecast was launched with just Netflix, YouTube and Google Play in mind. Thankfully, Google has an open approach, and more are springing up all the time. Now there is a long list, which includes Now TV, Blinkbox, BT Sport and BBC iPlayer. There's no sign of 4oD, ITV Player or Amazon Instant Video yet, but already the Chromecast offers more choice than the Apple TV.

The Chromecast is also hospitable. It doesn't seem to care whether you use Android or iOS. We managed to control it using both an LG G3 and an iPhone 5 with similar levels of performance.

## Web pages on the telly

Another trick is the ability to cast webpages. Download a free extension on the Chrome browser and you'll be able to mirror individual tabs on your TV. This feature is still officially in beta testing, however - dropouts are not unusual.

The device outputs a crisp, stable picture that goes up to 1080p. It's also capable of Dolby Digital Plus 5.1 sound.

Overall, Chromecast works very well. Casting may seem an odd idea, but it feels perfectly natural - not to mention cool.

Ideally, you'll want a good wi-fi connection. This ensures quality of performance, but also lets your phone or tablet maintain control. If your broadband is a bit sketchy, you'll be treated to adaptive streaming. Picture quality will adjust itself, downscaling to keep moving and avoid buffering.

The real wonder is how Google has crammed it all into a device barely larger than a memory stick. The sole output is an HDMI plug. Power comes by a bundled USB cable, and if you don't have a spare port in your TV you can use the adaptor.

We really like the Google Chromecast. It's a novel idea that works very well, and only promises to get better as developer support increases. For ₹2999 - or even less online - you cannot go wrong.

## Rating ★★★★★

**FOR** Innovative; takes up next-to-no space; simple and intuitive; slick operation; app support is increasing

**AGAINST** Could do with more apps

**VERDICT** An absolute bargain, and a neat and effective way to make your TV smarter

Roku 3 ₹8344 ★★★★★



If **Darth Vader** had a hockey puck, it would be a little like the Roku 3. It's a tiny device that does a lot more than its appearance suggests.

Roku has made several streaming devices, but this is easily the best one we've seen. For starters, it is seriously fast. Whatever command you enter, the Roku 3 will comply with full thrusters.

We manage to wake the device, load up Netflix and start playing something in the time it took for the Roku Streaming Stick to merely wake up. If you have little patience and want your content right now, this will bring a smile to your face.

### Speed and simplicity

It's a good performance, too. Videos load to 100 per cent and Full HD 1080p with little buffering. You can also pass through Dolby Digital 7.1 surround sound if you have an appropriate set-up. It's a very simple device in terms of hardware: there's no power button, because it uses less than 3.5W in standby mode (less than a typical nightlight). It also means the device can update its own firmware when you're not around. The only sign of life is a tiny white LED in the corner.

**The 'Private Listening' feature transfers the TV sound to the remote control**

There is a surprising number of connections, considering the size of the Roku 3 - an ethernet socket makes us happy; wi-fi is handy, but hard-wiring will ensure a more secure connection.

### Remote access

A microSD card slot lets you expand the device's storage, in case you download too many apps and games. A USB port lets you play your own files. File compatibility could be better (MP4, MKV, AAC, MP3, JPG, PNG) but apps like 'Plex' let you stream your own content from a networked computer. Video output is via HDMI. If you have an older TV with only analogue connections, you'll have to look at another streamer in Roku's range.

The remote control is worth mentioning: it communicates wirelessly with the Roku 3, so you can tuck the box away. More impressive, though, is the 'Private Listening' feature. Plug headphones into the remote and the TV will mute, transferring its sound to the remote. Sound quality won't amaze you, but it's better than turning the sound down and switching on subtitles (don't bother with the bundled buds, though).

The remote control also doubles up as a games controller, with extra buttons and motion sensors for simple games.

On to content, and Roku has a good offering: all the big names, Netflix, Now TV, YouTube and Spotify, as well as the UK's four catch-up services. There are more, but they are very niche offerings.

Oh, and one final bonus. The Roku 3 allows basic casting - you can use your phone to send Netflix and YouTube videos to the TV. It's not quite the Google Chromecast's library, but it works well.

We are very happy with the Roku 3. It is pricey compared with rivals, but its list of features is impressive, and leaves the similarly priced Apple TV far behind. Factor in the super-slick operational speeds and Roku is on to a winner.

### Rating ★★★★★

**FOR** Speedy operation; an extensive features list; remote control

**AGAINST** USB-file compatibility could be better

**VERDICT** A small box that's big on features. And it's fast



# Roku Streaming Stick ₹4899 ★★★★★



**It's all in** the name: it's a stick, and it streams. That's about as literal as it gets. We'll start with the 'stick' bit. The size and shape is comparable to that of the Google Chromecast. Think of a chunky memory stick, with an HDMI plug at the end of it, that goes directly into your TV or AV receiver.

## Right end of the stick

At the other end of the stick is a microUSB port for power. The bundled cable goes into a spare USB port on your TV; if you don't have one you can use the bundled mains adaptor. It's not very neat, but you're unlikely to notice it tucked behind your screen. You also get a remote control, which communicates with the Streaming Stick wirelessly.

Now let's get ready to Roku. Fire it up and you're invited to connect to your wi-fi network. You then go to the Roku website and open a free account. Here you choose the apps you want, which are then placed on the stick (don't worry, you can add individual apps too).

The Roku way is straightforward, and is similar across the company's devices, including the Roku 3. The menu opens

**A big plus with the Roku Streaming Service is its ability to 'cast'**

up with three choices: settings, an app market (free and paid for) and your chosen apps (or 'channels', as Roku insists in calling them). You'll find a good selection: Netflix, Now TV, YouTube, Spotify and the UK's main four catch-up services along with hundreds of niche, pointless ones. Sadly, there's no sign of Amazon Prime Instant Video.

## Casting call

There's also 'casting', which is the Google Chromecast's party trick (choosing content on a compatible mobile app and shooting it to your TV screen). The stick fetches the content from the internet, while your phone or tablet acts as the remote control. Video output goes up to a crisp 1080p, but what you actually get depends on the app you use and, most importantly, the strength of your wi-fi. Sound-wise, the Stick supports Dolby Digital Plus 7.1.

All good so far. But things begin to unravel when we compare the Roku Streaming Stick with its big brother the Roku 3, and with the Google Chromecast. These other options highlight a number of flaws here.

Operation is fine, but next to the Roku 3, the Streaming Stick is slower and more hesitant. Try to scroll through 10 titles on Netflix and the Streaming Stick struggles. Its loading times are longer too, both on start-up and when booting up an app.

The disparity between the two Roku devices is due to a difference in processing power, and yes, the Roku 3 is pricier, but it also offers more features. As for casting, the Google Chromecast's expanding library of apps leaves the Streaming Stick well behind. It's also not unusual for the Stick to choke on a cast, while the Chromecast casts effortlessly.

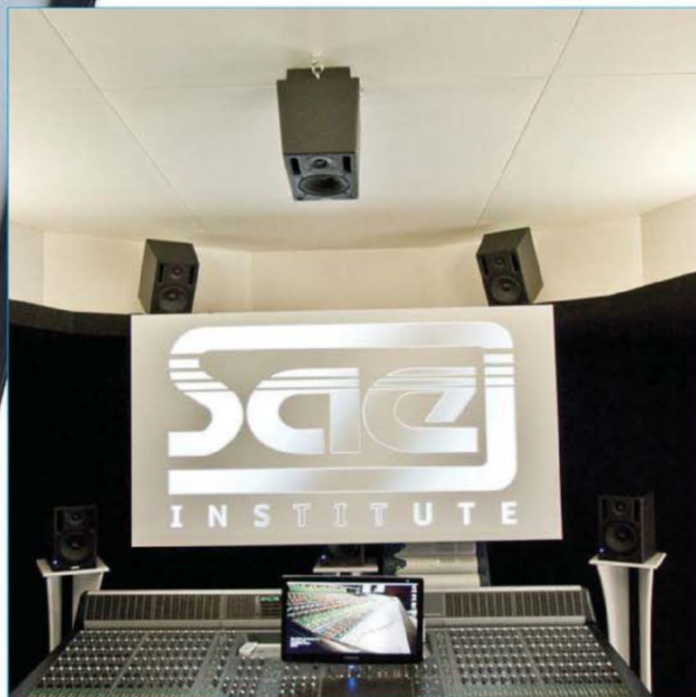
When we first reviewed the Roku Streaming Stick, we gave it five stars. It's still an impressive little package for the money, but there are better alternatives.

## Rating ★★★★★

**FOR** Features are plentiful and versatile

**AGAINST** Operation is not nearly as slick as its best rivals

**VERDICT** Not the smoothest operator around, but the Roku Streaming Service has a good bag of tricks



ROBIN REUMER, Manager, SAE Brussels, on the Sonodyne Auro 3-D install: "There are 2 parts I love about the Sonodynes - the detail they give, and, also considering the small size, the low end ... it has a very nice timbre"

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**TEST VERDICT****THE WINNER****Roku 3**

₹8344 ★★★★★

Affordable options for smartening up your telly are growing all the time but, for the time being, the **Roku 3** tops our list

**W**e just watched a lot of TV. By the end, it was clear that one device had stayed plugged in the longest, by far.

That's the Roku 3. We love it the most for many reasons. Its speed. Its connections. Its laundry-list of features, including the ability to connect headphones into the controller and listen, erm, remotely.

These reasons, combined with a generous selection of apps, make the Roku 3 the most versatile and pleasant box in this selection.

Sure, it's on the pricey side. But so is the Apple TV, which has a weighty price tag despite offering nowhere near as much freedom as the Roku 3. It does

offer excellent build quality, and for Apple users product integration is unparalleled. We only wish Apple would play better with others.

On the other end of the spectrum is the Now TV Box: cheap as two portions of chips but limited in features and specs. It's been outgunned, but remains a good first step into streaming.

Then we have the sticks. We love the Google Chromecast's innovative and intuitive mobile-based antics. It's great to use, with a good number of compatible apps, and that number is only growing. We'd take that over the Roku Streaming Stick, which offers more apps, but costs more and doesn't perform anywhere near as seamlessly.

**SYSTEM BUILDER**

These three – with your existing TV – will help the Roku 3 really shine

**Home cinema amplifier****Yamaha RX-V377** ₹34,999 ★★★★★

Features. Power. Connections. Confidence and punch. Truly a great way to get into surround sound.

**Speaker package****Q Acoustics 2000i 5.1** ₹87,750 ★★★★★

Still a firm favourite at this price three years after its debut. A must-hear for those looking for affordability and style in spades.

**Video streaming service****YouTube** ₹free ★★★★★

If you subscribe to one streaming service, make it this. Good balance of old and new films and TV shows, and near-universal compatibility.

**Total build from ₹1,31,093****Facts & figures****Apple TV**

₹7500 ★★★★★

Output HDMI, optical • **Max Resolution** 1080p • **Sound** Dolby Digital 5.1 Passthrough • **USB** No • **Expandable** Memory No • **Ethernet** Yes • **Size (hwd)** 9.8 x 9.8 x 2.3cm

**Google Chromecast**

₹2999 ★★★★★

Output HDMI • **Max resolution** 1080p • **Sound** Dolby Digital Plus 5.1 P'through • **USB** No • **Expandable** memory No • **Ethernet** No • **Size (hwd)** 7.2 x 3.5 x 1.2cm

**Roku 3**

₹8344 ★★★★★

Output HDMI **Max resolution** 1080p • **Sound** Dolby Digital Plus 7.1 Passthrough • **USB** Yes • **Expandable memory** Yes, micro SD • **Ethernet** Yes • **Size (hwd)** 8.9 x 8.9 x 2.5cm

**Roku Streaming Stick**

₹4899 ★★★★★

Output HDMI • **Max resolution** 1080p • **Sound** Dolby Digital 7.1 Passthrough • **USB** No • **Expandable** memory No • **Ethernet** No • **Size (hwd)** 7.8 x 2.7 x 1.2cm

# The world's most desirable kit

# TEMPTATIONS

## “Pathos filled with majestic grandeur”

■ **Pathos Lògos Mk II** Amplifier (with DAC module)

■ **₹4,28,000** ★★★★★

**W**e can't think of another manufacturer that balances the conflicting demands of aesthetics and performance better than Pathos. This Italian electronics specialist regularly delivers on both counts.

We're already big fans of the original Lògos. It was first released 12 years ago and has enjoyed a steady stream of upgrades throughout its life.

This Mk II version doesn't change in appearance at all - why would you, when the outlandish mix of wood, metal and left-field design still looks so stunning? But the engineers have taken the opportunity to revise its valve-powered preamp stage in a bid to improve its performance.

Its heart remains a pair of ECC83 valves, but the circuit is modified for greater stability and transparency. The power amplifier section is unchanged; it's a Class A/B MOSFET design with an output of 110 watts per channel into 8ohms, and double that as impedance halves.

As far as amplifiers are concerned, that doubling of output into 4 ohms is ideal behaviour, and at the very least suggests the Lògos will be happy driving a wide range of speakers. That certainly proves to be the case. It produces good volume levels with our reference ATC SCM50s and a pair of Monitor Audio PL100s. This integrated is certainly less fussy than just about any all-valve alternative we've tried.

### Hot but not dangerous

Those Pathos-script heat-sinks along each side aren't just for show. Given a couple hours of hard use they heat up notably. It's not dangerous of course, but

**The Pathos Lògos MK II version doesn't change its appearance at all, but why would you when the outlandish mix of wood, metal and left-field design remains so stunning?**

does mean that you need to ensure there's plenty of room for ventilation to prevent heat build-up being an issue.

The other major change in the transformation to Mk II status is the option of having on-board digital-to-analogue conversion circuitry. You can save a bit off the price we've quoted if you leave the digital module out, but we wouldn't. If, like us, you have a fair few digital sources you will find the DAC is a good one. Certainly, it's good enough to justify that outlay.

### A minor complaint

Our only complaint is that there isn't an optical option alongside the USB and pair of coax - it would be handy to have one. The amp will accept 24-bit/192kHz music streams through all its digital inputs, though you need to install dedicated Pathos software drivers to get the USB to work. It's a simple enough process that only takes a few minutes to complete.

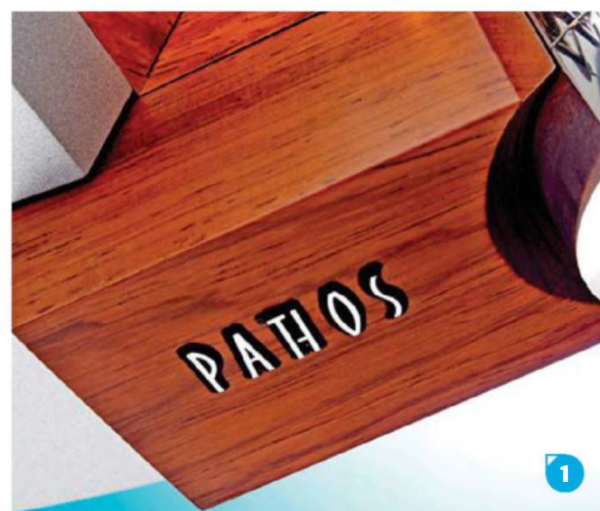
Away from the digital inputs the Lògos conforms to the high-end integrated amp norm. There's a decent supply of line level inputs, including two sets of balanced inputs. You also get a preamp output - for those who feel the need to bolster the amp's power - and a set of high-quality speaker terminals.

We're impressed by Pathos's build quality - the Lògos is solid and well

finished. We really like the attention given to small details such as the carved 'Mk II' on the wooden front section of the amplifier and the rather lovely circular grille holes on the top panel. While some may feel the overall effect is too showy, we doubt whether anyone could criticise the way it's made.

### Unwanted homework

Just as the looks are a little divisive, we think it will take a while before some people feel totally at home operating the Lògos. On the surface it's a simple device, with a couple of front panel





'Listening to a range of Motown, we are struck by the combination of insight, refinement and subtlety'  
See overleaf for more detail...



#### TECH SPECS

Power output 110 watts Integrated Yes DAC Yes  
Line level in 5 USB in 1 Tape loops 1 Preamp out Yes  
Speaker outputs 1 Remote control Yes  
Dimensions (hwd) 17 x 42 x 43cm Finishes 1



1 Evidence of high quality is everywhere, including the finish on this wooden front panel  
2 A pair of ECC83 valves perform pre-amplification duties  
3 The only obvious change from the original version is the MKII logo



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The amplifier's stereo imaging is good too. Instruments are placed with skill and the soundstage is wide and relatively deep

## In detail

**1 Pre-amp output** While not the obvious partner for an external power amplifier, the Lògos can be connected to one. This could be useful if you need a bit more grunt for especially difficult-to-drive speakers.

**2 Digital inputs** This is one of the major differences between this amplifier and the original. The DAC module is a good one and doesn't let down

the talented analogue circuit. You can save ₹450 without it, but we wouldn't.

**3 Balanced inputs** Alongside the standard single-ended option, the Pathos also has two pairs of balanced inputs. It's worth trying these out if your source is suitably equipped. Such a connection is ideal for very long cable runs (say, 5m and above).



buttons, a large volume control and minimalist remote. But the focus on aesthetics has affected usability. Neither of the front panel buttons - power and input selector - are labelled, which in itself isn't a huge problem, but couple that with a frustratingly vague action and things become too hit-and-miss for our tastes.

The Lògos's lovely looking wooden remote isn't perfect either. It may be well-built and neatly arranged with just

The remote is well-built and arranged but we are annoyed by a lack of precision in the button action

six buttons all in a line, but these aren't marked, so you have to learn their functions. Given a couple of days this is easily done - but once again we find ourselves annoyed by a lack of precision in use.

### A sonic cocktail well mixed

Start listening and any misgivings about ergonomics fade quickly. Previously, we haven't always been great fans of hybrid amplifier designs that mix valve and transistor technologies. The idea behind such products has always been to combine the fluidity of valves with the grip and power of solid state. In our experience it rarely works out that way.

Usually these designs compromise the innate strengths of both core technologies, resulting in a rather unsatisfying sonic cocktail. Pathos, in our experience, is one of the few companies to get hybrid designs right on a regular basis, and the Lògos Mk II continues that trend.

### Some soul shows its heart

You can't go wrong with classic Motown tunes so that's where we start. Listening to a range of tracks from The Temptations, Stevie Wonder and Smokey Robinson, we're struck by the amplifier's combination of insight, refinement and subtlety. It really gets to the heart of a track, revealing the emotions involved with ease.

It doesn't forget to have fun either. There's plenty of get-up-and go, and a surprising degree of rhythmic precision. It has us bopping along in quite an undignified manner to songs like *Superstition* and *Papa Was A Rolling Stone* - not a pretty sight, admittedly.

Moving onto something grander such as Tchaikovsky's *1812 Overture* reveals

the Lògos's muscular side. Such music highlights the amplifier's scale and authority, and its composure when pushed hard during the piece's savage crescendos. We're equally impressed by the Pathos's dynamic punch and its forceful yet textured bass.

The amplifier's stereo imaging is good too. Instruments are placed with skill and the soundstage is wide and relatively deep. The staging is nicely layered too and stays stable even when things become busy.

### Sweet but fortunately not sour

Tonally things are a little on the sweet side of neutral, but not enough to skew the overall balance too much. The sweetening is just enough to soften hard-edged treble a touch, making the Lògos less fussy about playing poor recordings than most alternatives.

It's easy for audiophiles to underestimate the likes of the Lògos Mk II. At the higher end of the market, products that place a priority on appearance normally struggle with sound quality. This Lògos Mk II is an exception. Looks, fine sound and excellent build - it has it all.

**Consider if** You value aesthetics as much as sound quality

**Highlight** Has got to be the amplifier's stunning appearance

### Rating ★★★★★

**FOR** Stunning appearance; sweet, balanced sound; fine dynamics coupled with insight

**AGAINST** Controls buttons on the front panel and remote handset lack precision

**VERDICT** This is a case of having your cake and eating it. Combines aesthetics and great sound





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#### NEED TO KNOW

##### CONSIDER IF

Your choices of movies and music include a lot of crashes and bangs

##### YOU'LL NEED

A capable and powerful AV receiver and lots of high-quality speaker cable

##### MAKE SURE

You get the placement of the components right, for the ideal surround sound effect

##### AVOID

Turning the subwoofer volume up too high, it will overpower the speakers

##### HIGHLIGHT?

Punchy, tight bass that makes your room shake every time things go boom

## Cerwin Vega XLS 5.1

₹1,71,000

**Cerwin Vega has built a bit of a reputation for itself, fitting into a niche category and being a favourite among users in that category.** Today, they're known for woofers and subwoofers capable of delivering high SPL output that don't rely on high power input. In other words, bassy, loudspeaker packages which can be powered by a relatively basic surround amplifier, and bring explosions and heavy beats to life.

Opening up the rather massive XLS speaker boxes gives us the impression that this 5.1 package is going to bring all of those famed Cerwin Vega values straight into our listening room. The only small components here are the XLS 6 surround speakers. To call the rest of the package large, especially the XLS 12SEU subwoofer, is a bit of an understatement. You'd better have a lot of space in your listening room.

Our setup was rather simple, with the XLS 28 floorstanders up front on either side of our Sony LED TV, the XLS 6C center speaker sitting right under the TV, the XLS 6 surrounds standmounters placed in the corners of the room on standmounts, while the giant XLS12SEU subwoofer was squeezed into a tight space next to the TV

set, firing forward. All of this was plugged into a Harman Kardon AVR171 receiver using MX flat speaker cable, with a Blu-ray player sending the signal to the receiver using MX HDMI 2.0 cables. Phew!

Seeing as we were putting a bass-heavy Cerwin Vega system through its paces, it only seemed right to pull out one of our boomiest test discs, *The A-Team*. The

**Bass is tight and makes the very sofa you're sitting on tremble in every action sequence**

center speaker's capabilities were put to the test from the very first scene, with attack and drive pushing the system to volumes that were far louder than its size would suggest. The center channel occasionally did lack definition, but more than made up for that with its impact.

Something you'll immediately realise is that the subwoofer is, in typical Cerwin Vega fashion, excellent. Bass is tight and makes the very sofa you're sitting on rumble during every action sequence. Gunshots and explosions throughout the opening scene, especially when the helicopter chase is on, ring through the room. But it soon becomes evident that it is the center speaker and the sub doing a lot of the work. The XLS 28 front speakers often feel like they aren't quite keeping up.

The XLS 6 surrounds do a fair job in maintaining the tonality during surround pans. Keep the channel levels in check and you could create a decent balance in the 5.1 soundstage. Music, unfortunately, is not a strong point for the XLS package. In 5.1 surround mode, music can have a sense of immersiveness, but in pure stereo, there's an appalling lack of clarity and definition. The cabinet is prone to storing a lot of energy and this causes veiling of fine detail and adds muddiness to the presentation.

Looks, too, are not a pro here. They look simple and functional, to say the least. But the Cerwin Vega does its primary job well, and that is to inject life into action movies like nothing else can. If you're looking for loud and punchy, look no further.

### Rating

**FOR** Punchy, powerful subwoofer, good surrounds and center, attack and drive

**AGAINST** Weak performance from floorstanders, package needs a lot of space

**VERDICT** There's no better way to get immersed in action movies at this price

### TECH SPECS

**XLS 6C (Center)** dual 6.5in 2-way, 125W, 10.4kg **XLS 6 (Surrounds)** dual 6.5in 2-way, 125W, 7.2kg each **XLS 12SEU (Subwoofer)** 12in active subwoofer, 250W RMS, 21.7kg **XLS 28 (Fronts)** dual 8in 3-way, 250W, 19.5kg each



**NEED TO KNOW****CONSIDER IF**

Space is limited and your TV sound is way too weak to enjoy movies on

**YOU'LL NEED**

An empty spot close enough to accommodate the bass module

**MAKE SURE**

You place the Acoustimass bass module in the same vertical place as the speaker

**AVOID**

Blocking the port on the bass module as it may end up "chuffing"

**HIGHLIGHT?**

Easy to set-up and plays plenty loud making it great for TV viewing

## Bose CineMate 15

₹50,513

**Part of the newly launched CineMate series of soundbar-based systems**, the CineMate 15 is the smallest and most affordable sibling. The concept remains the same but it's distilled further to suit smaller spaces or even desktops. As with most Bose products, there is a sense of heightened simplicity the moment you unbox the system. Everything sits pretty in its own, well-marked minibox and every cable and power plug you could think of is provided for. Of course, if you're bent towards sound quality more than convenience, a good quality aftermarket digital optical cable wouldn't hurt. This may be small but it's by no means wireless. A proprietary cable connects the soundbar to the Acoustimass module and all other connections like optical, coaxial and analog can be made directly to the soundbar, indicating that this system is more likely to be used close to sources and on the same table as your telly. The diminutive CineMate soundbar packs in quite a bit in terms of tech jargon. It uses TrueSpace signal processing along with four full range drivers, two of which face the sides of the unit. This creates an illusion of a much wider sound space than

what the tiny drivers would be capable of on their own. It also means that the CineMate is not very directional, so don't expect accurate stereo imaging from it. It's narrow width means its sound is more diffuse and that is part of its appeal. For close proximity set-ups, it creates the illusion that you're sitting much farther away. Give or take a few inches.

**Low-end is plentiful if not the most well defined and it serves certain types of music well**

Sonically, the CineMate 15 strikes a balance of woolly, full-bodied sound with an easy listening stride that should do well for background listening. The Acoustimass module doesn't serve up the deepest notes so its critical to placement. Keep it too far away from the soundbar and the location of the bass module gets easily identified, not what you need for a seamless listening experience. We placed it right under the desk, directly below the soundbar and in this location, there was much better integration within the system. George Ezra's wildy appreciated *Budapest* comes across with vigour and the verve and the midrange does sound bigger than it's supposed to. We did miss the level of detail and resolution that a good bookshelf speaker may provide but

the Bose doesn't lack in excitement. The low-end is plentiful if not the most well defined and it serves certain types of music well, especially EDM and house. You can really pump up the volume without the sound falling apart.

Fans of Bose will obviously flock to the CineMate 15 stand in the showrooms for a closer look. It's built well, sized just about right for a basic upgrade to your TV sound and keeps things simple in terms of connectivity. The oversized remote may look out of place but is more comfortable than most. It is the ideal starter system for technophobes and while you will never really be able to appreciate the depth in recordings, it will lift up the sound of any TV right out of its anemic slumber.

### Rating

**FOR** Ease of use, bountiful bass, remote works like a charm

**AGAINST** Lacks seamless integration between soundbar and subwoofer, detail not the best

**VERDICT** As a two-minute upgrade to TV sound, you can't get a simpler soundbar

### TECH SPECS

**Type** Full range drivers x 4 **Surround decoding** No **DSP** TrueSpace **Dimensions** **HWD (soundbar)** 8.5 x 30.5 x 7 cm **(sub)** 36.7 x 22.2 x 48.5 cm **Weight (soundbar)** 670gms **(sub)** 10.6kg



## Micromax Grande 50B5000FHD ₹39,990

**By stripping out all the 'non-essential' (aka 'Smart') features of your TV, Micromax hopes to deliver a large screen (50in) at a price point far lower than what you'd expect.**

You won't find much design flair in the Micromax Grande 50B5000FHD. It's rather plain looking, although the brushed-look bezel helps things a bit. But it's the build that disappoints, and a 50in TV this flimsy is a first. The remote also carries on with the plasticky theme and brings to mind grey-market accessories from a decade or so ago.

Turning to the picture quality, things do get better. The backlit LED panel is quite bright, definitely enough to watch *John Wick* even with the lights turned all the way up. But despite the excellent contrast, blacks never really get black, staying greyish during dark scenes. You'll also need to tweak the settings when watching a movie in dark conditions, as the defaults make the brightness levels harsh and overpowering. Combine that with the weak midtones and lack of smooth colour gradients, and the image comes off as either artificially contrasty or washed out. Motion judder is also noticeable during action scenes, although that's not unexpected for a

**Pull the curtains back while watching the World Cup on a sunny afternoon and the bright panel won't let you down**

budget set. But what left us absolutely shocked was the very basic media player and the unusable subtitle font.

Watching HD TV shows over HDMI, the drawbacks seem far less apparent, and whether it's club football or *Sleepy Hollow*, the wide viewing angles, bright and contrasty image, and clear vocals all work quite well.

Overall, despite the lack of features and image quality quirks, the Grande's low price makes it surprisingly good value, especially for someone who wants a big TV primarily for watching shows over DTH but is on a budget.

### Rating

**FOR** Pricing, picture quality over HDMI, clear vocals, brightness, contrast

**AGAINST** Basic media player, unusable USB subtitles, motion judder, build quality

**VERDICT** The stunningly low price almost makes up for the lack of features. Overall, a good TV for DTH viewing

### TECH SPECS

**Screen Size / Type** 50in / Direct LED **Built-in wi-fi** No **Connectivity** HDMI x 2, USB x 3, PC x 1 **Speakers** 10 + 10 Watt Audio

### NEED TO KNOW

#### CONSIDER IF

If you're on a budget and need a big TV that offers good brightness levels

#### YOU'LL NEED

An HTPC or streaming stick for anything more than satellite or cable TV

#### MAKE SURE

You tweak the picture as the high contrast makes the image seem harsh in dark viewing conditions

#### AVOID

USB playback as the in-built media player is very, very basic

#### HIGHLIGHT

Great pricing, decent picture quality over HDMI, and bright



## V-Moda Crossfade M-100 ₹24,990

**Bling them up with shiny metal plates in every colour or engrave them to your heart's content - these V-Moda over-ears offer an alarming array of customisation.**

They're clearly meant to be flaunted in public, so it's a good thing the M-100s fit the bill for portable use with their compact, snug frame. A collapsible design makes them easy to lug around

- just be careful you don't get your finger trapped in the folding mechanism. We did. A lot. While they grip your head confidently, those with petite head sizes may find them a bit too large, even with the headband on the tightest setting. The curved ear cups also graze against the ears over time.

We're not in the least surprised to hear that the M-100s are big on bass. But where the Beats Mixrs are heavy-handed, these V-Modas have more rhythmic ability and dynamism. The opening bass lines of The Cat Empire's *Fishies* are chunky and

**Where the Beats Mixrs are heavy-handed, these V-Modas have more rhythmic ability and dynamism**

playful, while there's a satisfyingly solid weight underpinning the anthemic *You Give Love A Bad Name* by Bon Jovi.

It's not a particularly airy sound though, and it can get chaotic at times. In fact, the V-Modas hit all notes a little harder than necessary. This ballsy approach just about works with heavy metal, but doesn't bode well for classical or vocal-heavy songs that need a gentler touch. Determined to make an impact, these style-conscious cans are made to be seen more than heard.

### Rating

**FOR** Punchy, weighty and dynamic, plenty of bass oomph, compact and foldable

**AGAINST** Needs more refinement and subtlety, can get a little chaotic

**VERDICT** These stylish cans definitely make an impact, but they need more finesse and detail to truly compete with class rivals

### TECH SPECS

**Style** Over-ear **Driver Unit** Dual-diaphragm 50mm **Frequency response** 5Hz-30,000Hz **Weight** 280g **Sensitivity** 103dB @ 1kHz

### NEED TO KNOW

#### CONSIDER IF

You need a pair of over-ears that are loud and proud in terms of looks and performance

#### YOU'LL NEED

To check them for size in order to ensure they fit just the way they should

#### MAKE SURE

You feed them high-res audio to get the best out of your buck

#### AVOID

Classical / vocal-led tracks. They lack the subtlety to present them properly

#### HIGHLIGHT

A premium build and style that can turn heads





## Fiio E11K Kilimanjaro 2

₹4499

**Most people just plug their headphones straight into their phones or iPods, and that's good enough for them.** But with the audiophile concept catching on, more users are spending big bucks on improving their audio setup to squeeze every last drop of quality out of their music. The Fiio E11K is made for that lot.

First things first, the E11K is not a DAC, just a portable amplifier for your headphones, and is doing less to clear up sound and more to simply increase volume and bass.

To start with, let's talk about the device itself. It'll fit in your palm and weighs just 92g, so it'll neatly slide into your pocket alongside your smartphone or PMP. The metal casing and dials feel premium, and the ports are intelligently at the back of the unit, along with the LED, which we thought was intelligent and thoughtful design.

Despite only being a volume and bass booster, the E11K is impressive in its abilities. We used an HTC One M8 as a source with the excellent Audio Technica ATH-MSR7 headphones, and found that the amp added some smoothness, and eased the strain on our ears even at the highest volume levels. Bass felt tighter as well.

**The amp added some smoothness, and eased the strain on your ears even at the highest volume levels**

In a straight battle for how loud it goes, a direct connection with the E11K is actually a bit louder. But it's impossible to listen at those levels without doing some ear damage, so the E11K will definitely test your ears. Just make sure you don't set the bass gain level too high, because that just makes a mess of everything.

If your headphones and source aren't playing well together or you just like going loud and clean, the E11K earns a hearty recommendation from us. It's available now at [headphonezone.in](http://headphonezone.in).

### Rating

**FOR** Smooth even when loud, bass handling, superb build quality, 16-hour battery life

**AGAINST** Bass gain can shatter eardrums in high mode, volume adjust isn't very linear

**VERDICT** It's a niche product and lacks a DAC, but judged purely on headphone amplification, it does a quality job

### TECH SPECS

**Audio input/output** 3.5mm/3.5mm stereo jacks **Battery** 1400 mAh  
**Size** 91.2x56x13mm, 92g

### NEED TO KNOW

#### CONSIDER IF

Your 'phones don't agree with your source, or you just like going loud

#### YOU'LL NEED

A good source device. A poor one leaves the amp with little to work with

#### MAKE SURE

You increase the volume gradually. It goes very loud, very fast

#### AVOID

The high setting for the bass gain. It's utterly destructive

#### HIGHLIGHT

Going really loud without your ears feeling any of the strain



## Harman Kardon AVR 171

₹59,990

**We don't normally get hung up on the design of an AV receiver, but the AVR-171 looks beautiful.** All smooth, curved edges with a clean and uncluttered fascia, it's an elegant alternative to the boxy amps. The Harman Kardon AVR-171 is certainly up for the challenge. Spin the star-studded space-western Cowboys and Aliens on Blu-ray, and the AVR-171 delivers the explosions, gunshots and spaceship crashes with all the punch and brawn it can muster. It's not the subtlest presentation, though: there's a slight edge to the sound that teeters on brightness. Loud and room-filling it might be, but the Harman can't quite

match the awesome scale of the Yamaha RX-V675. One thing it can do, however, is effortlessly steer the sound effects of a 7.1-channel DTS-HD Master Audio soundtrack. Low frequencies hit with satisfying impact, but more depth of detail would make drama and tension more palpable. Move away from explosion-laden soundtracks to the dialogue-centric *The Perks of Being a Wallflower*, and voices sound clear and direct. It's punchy and powerful sound is enthusiastic enough that big action films are really enjoyable to watch.

There are a couple of sound modes available via the Harman Kardon NSP (Natural Sound Processing) feature, although we'd steer clear of adding any extra processing over a film's soundtrack. The sound modes for movies and music don't add much to the AVR-171's naturally exciting

**If it's a big, muscular sound you want, the Harman's beefy delivery will keep you entertained**

performance. The Harman is packed with streaming features. AirPlay, Bluetooth and DLNA streaming are the big names when it comes to playing your music wirelessly - although the AVR-171 itself needs to be connected to your network via ethernet.

If it's a big, muscular sound you want, the Harman's beefy delivery will keep you entertained. Partner it with a suitable speaker package, and you have fantastic looking/sounding system.

### Rating

**FOR** Explosive, entertaining sound, good with music, streaming option, finish

**AGAINST** Slight hard edge to sound, remote control ergonomics

**VERDICT** A true all-rounder, this budget AVR brings Harman Kardon back to the top of the list!

### TECH SPECS

**Power** 100watts x 7 **Subwoofer Pre-Out** 2 **HDMI Inputs** 6 **Decoding** Dolby TrueHD, DTS Master Audio **Weight** 5.1kg

### NEED TO KNOW

#### CONSIDER IF

You like your home-theatre gear to sound as good as it looks

#### YOU'LL NEED

A 7.1 channel speaker system to fully exploit this AV receivers potential

#### MAKE SURE

You experiment with different wireless modes before settling on one

#### AVOID

Using the DSP modes if you want to achieve a truly accurate sound

#### HIGHLIGHT

The powerful delivery that really entertains for movies and music

# PLAY LIST

The movies, music and games to test your system



## Dracula Untold Blu-ray Out now

★★★★★



### Bonus content

- Luke Evans: Creating a Legend
- Alternate opening
- Deleted scenes
- Day in the life – Luke Evans
- Dracula Retold
- Slaying 1000
- The Land of Dracula
- Feature commentary with director Gary Shore and production design François Audouy

Duration 92m



## Breaking Vlad: Dracula is born

**Poor old vampires.** Once the legendary figures of terror, they have become synonymous with angsty teen fluff. Bram Stoker would turn in his grave.

But now we come full circle to the Daddy of vampires: Dracula. There's quite a lot here about the torture of immortality. None of that sparkly nonsense, thank you.

As the title suggests, you don't know this part of his lore. These are the wilderness years, fleshing out the time before he begins to resemble Gary Oldman.

That's right, we have another prequel-reboot at hand. As is customary with prequels, we join the main man before he sinks his teeth into his eponymous role.

He's a perfectly affable chap – talent for impaling enemies notwithstanding – minding his own business in Transylvania. Naturally, Bad Things soon happen and he gets a bit batty.

This is, of course, the best part. Vlad's transformation into Dracula plays out rather oddly like a superhero origins story. Faltering first steps and a ridiculous number of bats: Gotham City certainly springs to mind.

*Dracula Untold* takes the time to have a little fun with established vampire tropes. Vlad's obligation to dodge sunbeams around town is appreciably more effective than any ceiling-walking in *Van Helsing*.

### Why so serious?

What does every superhero do with new powers? Grow repetitive, of course. The set pieces are a good laugh, but it's hard to cheer Vlad's ability to burst into a cloud of bats for the 10th time.

Then the tone drops off a cliff. There is an abundance of slow motion and floaty choruses, and some risible dialogue about the power of love. Poetry is recited.

Ultimately, *Dracula Untold* lacks the conviction to drive the stake in any direction. By refusing to choose between stylised silliness and Gothic romance, it ends up like the bats: all over the place.

It is best to take this more as a sensory exercise, because it's a good workout for your system.

The picture is a pleasant one. There's plenty of light and dark. The palette offers enough variety – Vlad's red armour looks particularly sumptuous. Special effects are fairly convincing.

On the audio front, you get DTS-HD Master Audio 5.1. Did we mention there are a lot of bats? They are sure to challenge any system's effects-steering prowess.

Whether or not you are a fan of vampires, *Dracula Untold* offers something a little different. Sure, it lacks bite. But unlike poor old Vlad, it's harmless and ends in 92 minutes. Add it to your collection.



## Music highlights

### D'Angelo: Sugah Daddy

14 years is quite the gap between albums, even if D'Angelo has been busy one way or another. But now he's back...

### The Durutti Column: Sketch For A Summer

Featuring a virtuoso guitarist who didn't want his guitar to sound like a guitar, and first track on one of *the* great debut albums.

### Royal Blood: Figure It Out

Deliriously exciting and noisy Jack White-inflected rock action from the South-East coast of England. Turns out perspiration has a sound.

### The Stone Roses: Fools Gold

There isn't a dancefloor in existence, be it in an East Berlin basement nightclub or at a wedding reception in Delhi, that wouldn't enjoy a bit of this.

# Music

## Download, CD, vinyl



### JOSÉ GONZÁLEZ VESTIGES & CLAWS

Out now

★★★★★

Despite the seven-year gap between albums, José González has been as busy as a bee. The time between his previous solo outing (2007's *In Our Nature*) and *Vestiges & Claws* has been filled with a flurry of collaborations – his work with the band Junip, and with The Göteborg String Theory project, is particularly rewarding. But for those for whom González's previous two albums resonate, *Vestiges & Claws* comes not a moment too soon.

It's the immediacy and the intimacy of González's solo work

that's especially resonant. He sets his stall out early with opener *With The Ink Of A Ghost* and from there on out *Vestiges & Claws* is long on warm, organic acoustic nylon-string guitar sounds and close-mic'd vocals, correspondingly short on overdubs or overt percussion. Lyrically he's not the deepest thinker ever to make a record, but musically José González is as articulate as they come.

### Unthreatening intensity

This low-temperature palette of sounds does make a vocal harmony, or a tapped-guitar-body-as-beatbox, arrive like a rainstorm in a desert. And on the likes of *Stories We Build*, *Stories We Tell* and *Leaf Off/The Cave* González manages to build a sort of polite, unthreatening intensity, a kind of insistent knocking from someone you know is too considerate to just boot the door in. If your system's got the breadth of expression and a properly unified frequency range, *Vestiges & Claws* has plenty to give.

### Specifications

**Duration** 42m 52s

**Standout track** *Stories We Build*, *Stories We Tell* Simmering and insistent, in a high-gloss manner.

## Download, CD, vinyl



### PUBLIC SERVICE BROADCASTING THE RACE FOR SPACE

Out now

★★★★★

Retelling the story of the American/Soviet space race of 1957 – 1972 using hard-to-come-by access to the British Film Institute's archive on the subject, Public Service Broadcasting's *The Race For Space* is a collection of potent widescreen sonic paintings liberally studded with snatches of some of the most evocative broadcasts ever transmitted.

Fans of PSB's 2013 debut *Inform – Educate – Entertain* will immediately be at home with this collection of propulsive, atmospheric and

occasionally dancefloor-worthy pieces. The PSB *modus operandi* continues to be a kind of well-supervised collision between Kraftwerk and The Orb (if neither had a phobia of guitars) – consequently *The Race For Space* is quite short on actual songs, but long and luxurious on evocative soundscapes.

### More insistent than it seems

From the wordless-choir-plus-JFK of the opening title track, through the genteel chillout-tent beats of *Sputnik* to the weightlessness of *Valentina*, *The Race For Space* is a more insistent and coherent proposition than 'instrumentals-plus-scratchy-old-voice-recordings' might at first seem. And while it's not the toughest challenge you could present to your set-up, without wide, deep and well-defined soundstaging *The Race For Space* could sound a bit of a mess. Timing is crucial too, plus an explicit midrange is required to fully appreciate all that history.

### Specifications

**Duration** 43m 32s

**Standout track** *Go!* One of the few overtly punchy parts of the album, and none the poorer for it.

## Listen to it this way

### The system

**Apple iPad Air 2 ₹35,900 ★★★★★**

Great display, impeccable interface and outstanding digital sound quality

**NAD D 3020 ₹42,500 ★★★★★**

Everything a stereo amp at this price should be, both in terms of functions and of sound

**Q Acoustics Concept 20 ₹43,000**

★★★★★

In straightforward value-for-money terms, not much in this magazine betters the Concept 20s



*Vestiges & Claws* will revel in this modern, classy system

## Listen to it this way

### The system

**Clearaudio Concept ₹94,600 ★★★★★**

A record player of rare poise and resolution, and a system-match made in heaven

**PMC Twenty 22 ₹2,80,000 ★★★★★**

Power and scale beyond their size, allied to class-leading finesse and articulation

**Roksan K3 ₹1,68,750\* ★★★★★**

Big and bold enough to give PSB's widescreen sound full rein, but packed with detail too



A system to provide the well-defined soundstage required



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# The No.1 source of expert advice. Now, fully updated!

# BUYER'S GUIDE

## We can help

Welcome to India's best guide to TVs, hi-fi, home cinema and MP3, with full specs and ratings for hundreds of products.

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We've put the Buyers Guide through a much needed refresher. All prices and products are now up to date and current, and there are also a few tips and tricks for getting the best out of your kit.



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**3** We offer the most comprehensive list of technical specifications for each and every product we've reviewed.



**Shanth Swaroop**  
Editor, Buyer's Guide

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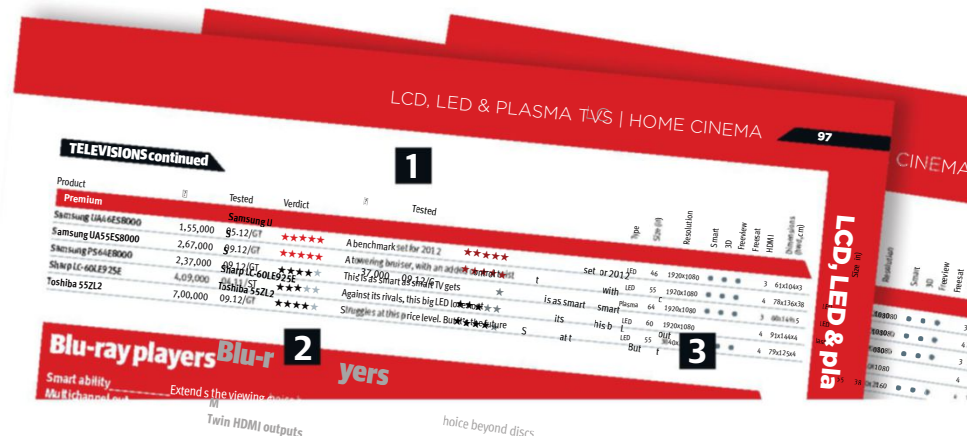
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## AV receivers & amplifiers

Budget	Well-equipped and deliver convincing surround sound
Mid	There are gains in features, build quality and sonic performance
Premium	Real powerhouses that pack loads of features and cinema-style sound

Product	₹	Verdict	Channels /power (w)	HDMI in	HDMI out	Networking	3D passthrough	Dimensions (hwd, cm)
Pioneer VSX-522	NA	★★★★★	5x125	4	1	●	●	17x44x36
Pioneer VSX-922	NA	★★★★★	5x125	4	1	●	●	17x44x36
Yamaha RX-V373	28,990	★★★★★	5x100	4	1	●	●	15x44x32
Yamaha RX-V375	30,990	★★★★★	5x100	4	1	●	●	15x44x32
Denon AVR-1912	45,900	★★★★★	7x90	5	1	●	●	17x44x38
Onkyo TX-NR525	46,000	Not rated	5x160	6	1	●	●	17x44x33
Denon AVR-2113	49,900	★★★★★	7x125	6	1	●	●	17x44x33
Harman Kardon AVR171	59,990	★★★★★	7x100	6	2	●	●	12x44x30
Pioneer VSX-923	55,190	★★★★★	7x150	8	2	●	●	17x44x36
Onkyo TX-NR626	63,000	Not rated	7x175	6	2	●	●	17x44x33
Onkyo TX-NR727	72,000	Not rated	7x185	8	2	●	●	17x44x38
Denon AVR-X4000	1,34,900	★★★★★	7x125	7	3	●	●	17x43x38
Yamaha RX-V673	56,990	★★★★★	7x150	6	1	●	●	17x44x36
Pioneer SC-LX57	1,10,990	★★★★★	9x190	9	3	●	●	19x44x44
Pioneer SC-LX87	1,73,990	★★★★★	9x170	7	2	●	●	17x43x41
Onkyo TX-NR1009	1,30,000*	★★★★★	9x180	8	2	●	●	20x44x44
Yamaha RX-A3030	1,61,000	★★★★★	9x150	8	1	●	●	19x44x47
Onkyo TX-NR828	95,000	Not rated	7x215	8	2	●	●	20x44x40
Pioneer SC-LX56	NA	★★★★★	9x170	8	2	●	●	19x44x44
Arcam AVR750	4,50,000	★★★★★	7x100	7	2	●	●	17x43x43
Yamaha RX-A1010	89,990	★★★★★	7x170	8	2	●	●	18x44x43
Yamaha RX-A1020	89,990	★★★★★	7x110	8	2	●	●	18x43x43
Onkyo TX-NR1010	1,60,000	★★★★★	7x200	9	2	●	●	20x44x59
Onkyo TX-NR3009	1,60,000*	★★★★★	9x200	8	2	●	●	34x61x60
Onkyo TX-NR3010	1,90,000	★★★★★	9x160	9	2	●	●	20x44x60
Onkyo TX-NR5010	2,20,000	Not rated	9x280	9	2	●	●	20x44x46
Pioneer SC-LX86	NA	★★★★★	9x190	8	3	●	●	19x44x44
Yamaha RX-A3020	1,34,990	★★★★★	9x230	8	2	●	●	19x44x47
Yamaha RX-V377	34,990	★★★★★	5x70	4	1	●	●	15x44x32
Yamaha RX-A1030	1,04,000	★★★★★	7x110	8	2	●	●	18x43x43
Pioneer SC-LX87	1,73,990	★★★★★	9x220	9	3	●	●	19x44x44
Arcam AVR450	2,55,000	★★★★★	7x110	7	2	●	●	17x43x42

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## Surround speakers

Full size	Traditional cabinet design that are big but can deliver a great sound
Style	Compact speakers that make a lot of sense in smaller living spaces
Bipole/Dipole	Surround speaker designs that give a more cohesive soundfield

### The shortlist



Awards 2013: Best Traditional Pack (Budget)



Awards 2013: Best Style Pack (Mid)



Awards 2013: Best Traditional Pack (Premium)

Product	₹	Verdict	Front speaker (hwd, cm)	Center speaker (hwd, cm)	Rear speaker (hwd, cm)	Subwoofer (hwd, cm)	Finishes
Boston Ac. Soundware XS SE	33,099	★★★★★	11x11x9	11x11x9	11x11x9	31x28x40	2
Canton Movie 125 MX	39,375*	★★★★★	12x9x10	9x20x10	12x9x10	43x24x42	3
Canton Movie 130	75,000	★★★★★	12x9x10	9x19x10	12x9x10	41x24x42	3
Wharfedale DX-1HCP	45,000	★★★★★	19x12x12	12x29x12	19x12x12	34x29x32	2
Cambridge Audio Minx S215	58,500	★★★★★	8x8x9	8x8x9	8x8x9	22x21x22	1
SKS HT-528	25,000	Not rated	18x10x12	10x27x11	18x10x12	43x23x41	
KEF KHT3005 HD2	1,08,000	★★★★★	25x13x15	13x25x15	25x13x15	38x37x18	1
Monitor Audio MASS	1,03,000	★★★★★	22x13x13	13x22x13	22x13x13	42x38x38	1
Monitor Audio Vector AV10	59,000	★★★★★	24x15x17	15x35x17	24x15x17	37x32x32	3
Q Acoustics 2000i 5.1	87,750	★★★★★	23x15x20	23x16x12	23x15x20	23x16x12	2
Q Acoustics Q7000	95,250	★★★★★	24x10x16	12x21x16	24x10x16	37x51x22	2
Tannoy HTS-101	60,200	★★★★★	16x11x14	11x25x17	16x11x14	42x28x37	1
B&W MT-50	1,91,250	★★★★★	25x11x16	25x11x16	25x11x16	26x26x33	2
B&W MT-60D	3,28,500	★★★★★	25x11x16	25x11x16	25x11x16	34x27x36	2
Cabasse Eole 2	88,000	★★★★★	13x13x13	13x13x13	13x13x13	33x33x36	2
DALI Zensor 1 5.1	1,12,000	★★★★★	27x16x22	16x44x29	27x16x22	31x29x31	3
DALI Zensor 5 5.1	1,55,400	★★★★★	84x16x27	16x44x28	97x16x23	34x37x38	2
Elipson Planet M 5.1	1,05,000	★★★★★	15x15x15	15x15x15	15x15x15	39x32x32	3
Jamo D500 THX Select 2	2,17,000	★★★★★	26x45x13	26x45x13	26x45x13	42x40x42	2
KEF KHT3005SE	1,08,000	★★★★★	25x12x15	13x30x18	25x12x15	39x44x19	2
KEF Q300 5.1	1,26,000	★★★★★	36x21x30	21x63x30	36x21x30	33x34x33	3
KEF T105	89,900	★★★★★	33x14x4	33x14x4	33x14x4	38x37x8	1
Monitor Audio Bronze BX2 5.1	1,60,000	★★★★★	35x19x26	17x46x17	29x28x11	33x32x33	4
Monitor Audio Bronze BX5 5.1	2,75,000	★★★★★	85x17x25	17x46x17	29x28x11	33x32x33	2
Tannoy Rev. Compact 5.1	1,40,000*	★★★★★	27x15x16	15x30x16	39x31x34	32x29x29	2
B&W CM9 Theatre	7,99,875	★★★★★	102x32x37	22x59x28	34x20x28	32x32x32	2
B&W CT800 system	2,01,65,625	★★★★★	110x33x55	33x110x55	110x33x10	48x48x48	1
DALI Ikon 5 Mk2 5.1	3,21,900	★★★★★	81x15x28	15x57x26	38x27x15	45x41x46	2
Cerwin Vega SL Series 5.1	2,36,000	Not rated	84x36x38	17x28x18	91x42x50	45x13x16	1
Cambridge Audio Aero 5.1	1,57,000	★★★★★	98x24x34	15x43x21	18x46x15	34x33x36	2
KEFR100 5.1	2,47,000	★★★★★	28x18x29	17x53x31	28x18x29	37x33x35	4
Monitor Audio Apex	1,68,100	★★★★★	25x14x14	14x61x10	25x14x14	34x34x41	2
Energy Veritas RC Micro 5.1	47,100	Not rated	12x9x9	9x9x15	12x9x9	32x31x27	1
Monitor Audio PL300 AV	14,10,000	★★★★★	111x41x47	22x58x29	37x22x28	45x48x47	2
Mon. Audio Silver RX6 AV12	2,93,400	★★★★★	85x19x25	19x50x20	30x12x25	34x34x41	6
Mordaunt-Short Aviano 5.1	2,50,800	★★★★★	95x21x32	18x46x23	95x21x30	42x31x36	3
Mordaunt-Short Mezzo 5.1	5,27,200	★★★★★	100x22x28	18x49x22	35x22x28	32x34x35	2
Mordaunt-S. Performance 5.1	13,14,000	★★★★★	121x24x37	60x21x22	121x24x37	50x50x50	2
PMC DB1i 5.1	5,00,000*	★★★★★	29x16x23	16x29x23	29x16x23	55x20x55	4
Tannoy Revolution Signature	1,64,500*	★★★★★	85x17x18	17x45x18	27x17x18	37x34x34	2

## CD Players

**Integrated** \_\_\_\_\_ Has both a CD mechanism and digital-to-analogue conversion tech  
**Transport** \_\_\_\_\_ Needs an outboard DAC but can deliver a higher standard of sound

### The shortlist



**AWARD WINNER**

**Marantz CD6005**

Awards 2013: Best CD Player (Budget)



**PRODUCT OF THE YEAR**

**Naim CD5si**

Awards 2013: Best CD Player (Mid)



**AWARD WINNER**

**Roksan Caspian M2 CD**

Awards 2013: Best CD Player (Premium)

Product	₹	Verdict	Integrated Transport	Co-axial out	Optical out	XLR out	RCA out	Headphone out	Co-axial in	Optical in	AES/EBU in	USB in	Finishes	Dimensions (hwd, cm)
Cambridge Audio Azur 351C	30,800	★★★★★	●	1	1	0	1	0	0	0	0	0	2	9x43x31
Cambridge Audio Azur 651C	46,600	★★★★★	●	1	1	0	1	0	0	0	0	0	1	9x43x31
Denon DCD-710AE	27,400	★★★★★	●	0	1	0	1	1	0	0	0	0	2	11x43x28
Marantz CD6004	39,900	★★★★★	●	1	1	0	1	1	1	0	0	0	2	11x44x34
NAD C546BEE	41,000	★★★★★	●	1	1	0	1	0	0	0	0	0	1	7x44x29
Audiolab 8200CD	80,000*	★★★★★	●	1	1	1	1	0	2	2	0	1	1	8x44x30
Cyrus CD T Transport	1,15,000	★★★★★	●	1	1	0	0	0	0	0	0	0	2	8x22x36
Cyrus CD6 SE2	1,25,000	★★★★★	●	0	1	0	1	0	0	0	0	1	2	8x22x36
Naim CD5si	1,25,000	★★★★★	●	0	0	0	1	0	0	0	0	0	1	7x43x30
Roksan Kandy K2	68,500	★★★★★	●	1	1	1	1	0	0	0	0	0	2	10x43x38
Burmester 069	45,00,000*	★★★★★	●	1	0	1	1	0	0	0	0	0	2	13x48x31
Audio Research CD5	6,18,750	★★★★★	●	1	0	1	1	0	0	0	0	0	2	13x48x31
Cambridge Audio Azur 851C	1,23,000	★★★★★	●	1	1	1	1	0	2	2	1	1	2	12x43x34
Cyrus CD 8 SE2	1,82,000	★★★★★	●	1	1	0	2	0	0	0	0	0	2	8x22x36
dCS Puccini	9,50,000	★★★★★	●	1	0	1	1	0	2	0	0	0	2	11x46x40
Parasound Halo CD1	3,00,000	★★★★★	●	1	1	0	1	0	1	1	0	1	2	11x44x34
Naim CD5 XS	2,50,000	★★★★★	●	1	0	0	1	0	0	0	0	0	1	7x43x30
Naim CD555	14,00,000	★★★★★	●	0	0	0	1	0	0	0	0	0	1	11x43x31
Naim CDX2	4,50,000	★★★★★	●	0	0	0	1	0	0	0	0	0	1	9x43x31
Primare CD32	1,63,000	★★★★★	●	1	1	1	1	0	0	0	0	0	2	11x43x38
Roksan Caspian M2 CD	1,98,000	★★★★★	●	1	1	1	1	0	0	0	0	0	2	8x43x33
Marantz CD6005	41,900	★★★★★	●	1	1	0	1	1	0	0	0	0	2	11x44x34
Esoteric K-05	8,50,000	★★★★★	●	1	1	1	1	0	1	1	0	1	2	13x45x36

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## DACs

Digital-to-analogue converters take a digital data stream from its source (such as a computer or CD transport) and turn it into an analogue signal that your amplifier can work with. These devices have become more popular in recent years due to the emergence of computer-based audio

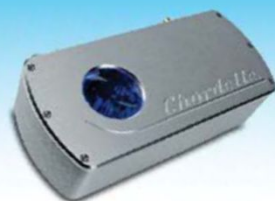
### The shortlist



#### HRT microStreamer

Has beaten our 2012 Award-winner

"Truly captivated us with a stunningly agile-paced performance that reveals layers of subtlety hitherto unheard with just a pair of headphones and a laptop."



#### Chord Chordette QuteHD

Awards 2012: Best DAC (Mid)

"It's simple, looks great – and above all, sounds absolutely fantastic. You'll have to spend twice as much to get something significantly better."



#### NAD M51

Awards 2012: Best DAC (Premium)

"The M51 sounds sensational. In fact, we'd go further than that by saying it's one of the best NAD separates we've heard in recent memory."

Product	₹	Verdict	USB in	Optical in	Co-axial in	AES EBU in	HDMI in	Wireless	Headphone out	RCA out	Balanced XLR out	Dimensions (hwd, cm)
Audioengine D1	11,789	★★★★★		1	1	0	0	1	1	1	0	3x9x10
Audioquest DragonFly	18,900	★★★★★		1	0	0	0	0	1	0	0	1x2x6
Arcam rDAC Wireless	36,000*	★★★★★		1	1	1	0	0	0	1	0	4x16x11
Arcam rPAC	19,800	★★★★★		1	0	0	0	0	1	1	0	3x10x6
Camb. Audio DacMagic 100	18,800	★★★★★		1	2	2	0	0	0	1	0	5x11x13
Camb. Audio DacMagic Plus	38,500	★★★★★		1	2	2	0	0	1	1	1	5x22x19
HRT microStreamer	20,000*	★★★★★		1	0	0	0	0	1	0	0	1x3x6
Meridian Explorer DAC	31,000	★★★★★		1	0	0	0	0	1	0	0	2x3x10
Micromega MyDAC	32,000	★★★★★		1	0	0	0	0	1	0	0	2x3x10
Musical Fidelity M1 DAC	40,500	★★★★★		1	1	1	1	0	0	1	1	10x22x30
NAD DAC 2	25,500	★★★★★		1	0	0	0	0	0	1	0	4x14x7
Cambridge Audio Azur 851D	1,03,000	★★★★★		1	4	3	1	0	0	1	0	12x43x36
Chord Electronics QuteHD	1,00,000*	★★★★★		1	1	1	0	0	0	1	0	7x16x4
Meridian Director	65,000	★★★★★		1	1	1	0	0	0	1	0	3x14x8
Audio Research DAC8	5,30,000*	★★★★★		1	1	1	0	0	1	1	1	13x48x25
Arcam FMJD33	2,34,000	★★★★★		3	2	2	1	0	0	1	2	11x43x37
Burmester 113	4,00,000*	★★★★★		1	1	1	0	0	0	1	1	6x20x17
Rotel RDD-1580	80,000	★★★★★		1	2	2	0	0	0	1	1	6x43x32
NAD D1050	42,500	★★★★★		1	2	2	0	0	1	1	1	19x6x21
NAD M51	1,27,000	★★★★★		1	1	1	1	2	0	1	0	8x44x30
Naim DAC	2,50,000	★★★★★		2	3	3	0	0	0	1	0	7x43x30

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## Hi-Fi speakers

Standmounters	Usually smaller speakers that need to be put on a stand, not bookshelves
Floorstanders	Larger speakers that tend to go louder and deeper than standmounters
Powered	Have built-in amplifiers and need mains power to work

### The shortlist



**Q Acoustics Concept 20**

Awards 2013: Best Stereo Speaker (Budget)



**AWARD WINNER**  
**KEF LS50**

Awards 2013: Best Standmounter (Mid)



**AWARD WINNER**  
**PMC Twenty 22**

Awards 2013: Best Standmounter (Premium)

				Standmount	Floorstander	Powered	Finishes	Dimensions (hwd,cm)
Product	₹	Verdict						
Audioengine P4	18,000	★★★★★	Small in size, huge in sound: a must-audition pair	●		3		23x14x17
PSB Alpha T1	37,000	Not Yet Rated	Not Yet Rated		●	3		91x18x31
PSB Alpha LR1	13,000	Not Yet Rated	Not Yet Rated		●	3		18x12x16
Waterfall Serio	15,000	Not Yet Rated	Not Yet Rated				3	5x5x3
Q Acoustics 2010i	19,200	★★★★★	Set the standard at this price and size level	●		4		23x20x15
Q Acoustics 2020i	25,900	★★★★★	Best stereo speakers (Budget), Awards 2013	●		4		26x17x28
Tannoy Mercury V1i	19,800	★★★★★	An excellent entry-level all-rounder	●		2		30x17x26
Wharfedale Diamond 10.0	11,500	★★★★★	An ideal choice for the easily startled, but a little straitlaced for our liking	●		7		24x15x17
Audioengine A5+	27,980	★★★★★	Bigger, better and more flexible than the originals	●		3		27x18x20
Q Acoustics Q-BT3	39,990	★★★★★	There are few other products as versatile and easy to like at this price	●	●	4		31x19x24
Boston Acoustics A-26	24,600	★★★★★	A beautifully accomplished standmounter	●		2		33x21x27
B&W 685 S2	65,000	★★★★★	A superb, hugely entertaining pair of speakers. Worth the wait? Absolutely	●		2		35x19x32
B&W MM-1	40,000	★★★★★	Still good, but there's better available		●	1		17x10x10
Waterfall Hurricane Evo	31,200	Not Yet Rated	Not Yet Rated				3	11x7x3
Bose Computer MusicMonitor	28,013	★★★★★	Enjoyable sound for a speaker this small	●		2		12x7x12
DALI Lektor 2	37,500	★★★★★	Seriously entertaining speakers and simply stunning at this money	●		2		31x18x22
DALI Zensor 3	33,000	★★★★★	If it's entertainment you crave, these standmounters deliver in spades	●		3		35x21x29
DALI Zensor 1	23,700	★★★★★	These brilliant budget standmounters demand a listen	●		2		27x16x22
Epos Epic 1	32,950	★★★★★	Punchy and exciting but they can't deliver all-round ability	●		2		31x19x25
Focal Chorus 706V	49,999	★★★★★	Thoroughly enjoyable but they may not cut it with dance music	●		3		39x22x29
Focal XS Book	29,999	★★★★★	A potent-sounding speaker that brings hi-fi listening to your desktop.		●	1		28x11x20
KEF Q300	33,000	★★★★★	Product of the year - Stereo speakers, Awards 2011	●		3		36x21x30
Totem Dreamcatcher	33,250	Not Yet Rated	Not Yet Rated			4		11x5x7
Totem Mite	44,750	Not Yet Rated	Not Yet Rated			6		11x6x8
Monitor Audio Bronze BX2	32,000	★★★★★	Best stereo speakers (Budget-Mid), Awards 2012	●		4		35x19x26
Monitor Audio Silver RX1	43,900	★★★★★	Form and function in perfect harmony, these speakers will sit pretty in any home	●		6		31x19x24
Mordaunt-Short Aviano 1	18,000	★★★★★	Still great, but the rivals have caught up	●		1		28x18x27
Mordaunt-Short Aviano 2	23,000	★★★★★	Plenty of bang for your buck, and more besides	●		3		32x21x30
Mordaunt-Short Mezzo 2	37,800	★★★★★	For speakers so small, you get surprisingly full bass	●		2		35x22x28
Q Acoustics 2050i	66,400	★★★★★	Best floorstander (Mid), Awards 2012		●	4		100x32x27
Quad 11L Classic	38,000	★★★★★	Impressive standmounters but lack a touch of sparkle	●		4		31x19x24
Tannoy Mercury V4i	48,200	★★★★★	Best floorstander (Mid), Awards 2011		●	2		97x20x28
Tannoy Revolution DC4	42,700	★★★★★	They may be small of stature but these Tannoys have a huge sonic heart	●		2		27x15x16
Tannoy Revolution DC6	70,300	★★★★★	Best standmounter (Mid), Awards 2012	●		1		36.5x20x25
Triangle Color	49,400	★★★★★	Small, but perfectly formed	●		3		29x17x24
Wharfedale Diamond 10.1	18,500	★★★★★	Fresh competition now offers more for the money	●		4		30x19x28
Wharfedale Diamond 121	20,000	★★★★★	Fabulous sound. For insight and entertainment, the 121s needn't fear any rival.	●		7		32x17x23
Audio Pro LV2e	86,625	★★★★★	Wireless desktop speakers with a hi-fi flourish			3		98x14x24
Audiovector Ki1 Super	TBA	★★★★★	These pint-sized speakers lack far-reaching dynamics, but are easy to live with		●	5		98x14x24
Audiovector Ki3 Standard	TBA	★★★★★	Packed with resolution and speed		●	5		98x14x24



## SPEAKERS continued

Product	₹	Verdict	Standmount Floorstander Powered Finishes	Dimensions (hwd, cm)
Dynaudio DM 2/6	59,000	★★★★★	Best stereo speakers at this price. Just the right amount of sparkle at the top end	● 2 29x17x24
Dynaudio DM 2/7	66,000	★★★★★	A seriously competitive speaker at this price point	● 1 36x22x27
ATC SCM 11	93,000	★★★★★	Best standmounter (Mid-Premium), Awards 2011	● 1 38x21x25
B&W XT2	1,12,500	★★★★★	Classy, sophisticated but the sound lacks bite	● 2 31x15x20
DALI Ikon 6 Mk2	1,26,000	★★★★★	Cleaner, clearer and more insightful than its forerunner	● 3 100x19x36
DALI Ikon 1 Mk2	60,000	★★★★★	Huge sound and good timing, these Dalis are heartily recommended	● 3 33x15x26
DALI Mentor Menuet	84,000	★★★★★	These Menuets are something of a gem	● 2 25x15x23
DALI Zensor 5	54,900	★★★★★	Compact and affordable floorstanders	● 2 84x16x27
Energy Speakers CF70	78,400	Not yet rated	Not yet rated	● 1 103x21x40
Energy Speakers CF50	67,200	Not yet rated	Not yet rated	● 1 98x18x37
PSB Image T5	67,000	Not yet rated	Not yet rated	● 2 94x21x32
PSB Imagine T	1,39,000	Not yet rated	Not yet rated	● 5 94x21x35
Elac BS142	60,000	★★★★★	An organic sounding and entertaining pair of speakers that are fun to listen to	● 1 26x16x26
Elipson Planet L	60,000	★★★★★	Charming in many ways, with good transparency	● 3 40x42x43
Epos Epic 5	66,425	★★★★★	Hugely likeable floorstanders with broad sonic appeal	● 2 92x21x32
KEF LS50	1,10,000	★★★★★	Best standmounter (Mid-Premium), Awards 2012. PRODUCT OF THE YEAR	● 1 30x20x28
KEF R100	73,000	★★★★★	These are extremely talented stand-mounters	● 4 28x18x29
Monitor Audio Bronze BX5	55,000	★★★★★	Easiest floorstanders to live with we've heard in a good while	● 4 85x17x25
Monitor Audio Silver RX2	65,300	★★★★★	A lot of speaker and a lot of sound	● 6 37.5x23x30
Monitor Audio Silver RX6	83,250	★★★★★	A sensational product from Monitor Audio – detailed, dynamic and very attractive, too	● 6 91x28x31
Monitor Audio Silver RX8	1,09,000	★★★★★	If you're addicted to bass, these floorstanders will suit you	● 6 96x28x39
Mordaunt-Short Aviano 6	41,500	★★★★★	A fine all-rounder, with power and bass in spades, and plenty more besides	● 3 95x21x30
Mordaunt-Short Aviano 8	52,000	★★★★★	Great speakers for sure, but too controlled	● 3 95x21x32
Mordaunt-Short Mezzo 6	75,600	★★★★★	Possibly the best in their class	● 2 100x22x28
Mordaunt-Short Mezzo 8	1,09,000	★★★★★	Not the best all-rounders in the Mezzo range, but still very likeable	● 2 107x22x31
PMCD B1i	1,20,000*	★★★★★	Superbly detailed and rewarding small speakers	● 4 29x16x23
Quad 12L Classic	52,000	★★★★★	There's plenty to admire here	● 4 34x21x28
Spendor S3/SR2	84,500	★★★★★	A little less than the sum of their parts	● 4 31x17x18
Spendor SA1	1,35,800	★★★★★	Small, top-class standmounts	● 3 31x17x19
Tannoy Precision 6.1	96,300	★★★★★	Rhythmic, detailed speakers but a lack of solidity leaves them sounding unbalanced	● 2 33x22x26
Tannoy Precision 8D	60,000*	★★★★★	Solid active speakers that sound good	● 1 44x27x37
Tannoy Revolution DC6T	1,03,700	★★★★★	Best floorstander (Mid-Premium), Awards 2011	● 1 95x26x29
Tannoy Revolution DC6T SE	1,10,000*	★★★★★	Best floorstander (Mid-Premium), Awards 2012	● 1 100x31x28
Tannoy Rev. Sig. DC4	40,000*	★★★★★	DC4s are still appealing across the board	● 2 27x17x18
Tannoy Rev. Sig. DC6T	1,20,000*	★★★★★	Expensive but fully justify the price tag – expertly balanced performance	● 2 14x9x9
Totem Rainmaker	59,500	★★★★★	Hugely musical, and a pleasure to listen to	● 4 36x17x23
Triangle Color 123	77,000	★★★★★	A brilliant desktop speaker package	3 14x14x14
Triangle Comete Anniv.	1,24,000	★★★★★	Ideal for injecting energy into your music	● 1 42x20x34
Vienna Ac. Haydn Grand	85,920	★★★★★	Beautifully built, they pack a sweet sonic punch that's focused and purposeful	● 5 36x17x27
Wharfedale Denton	52,000	★★★★★	Relaxed yet engaging sound has a lot of appeal	● 1 32x20x31
Neat Iota	85,000	★★★★★	Attractive, but with a hefty sound too	● 5 13x20x17
Elac FS249	2,40,000	Not yet rated	Not yet rated	● 115x26x36
JBL Project Everest DD6000	16,16,999	Not yet rated	Not yet rated	● 2 44x38x18
JBL Synthesis 4700	7,04,599	Not yet rated	Not yet rated	● 1 43x20x15
Neat Motive SX1	2,20,000	★★★★★	Charming, unique speakers - they lean backwards	● 4 93x16x20
PSB Synchrony One	3,47,000	Not yet rated	Not yet rated	● 3 109x23x33
PSB Synchrony One B	1,49,000	Not yet rated	Not yet rated	● 3 99x19x28
ATC SCM 100A	10,99,000	★★★★★	Massively talented and proportioned	● 4 107x40x56

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## SPEAKERS continued

Product	₹	Verdict	Standmount Floorstander	Powered	Finishes	Dimensions (hwd, cm)
ATC SCM40	2,20,000	★★★★★	Among the best at this price level, but is your system good enough?	●	1	97x23x32
Harbeth P3ES-R	1,74,027	Not yet rated	Not yet rated	●	4	30x19x20
Harbeth Compact 7ES-3	2,46,089	Not yet rated	Not yet rated	●	4	52x27x32
Harbeth Super HL5	3,00,181	Not yet rated	Not yet rated	●	4	64x32x30
B&W 800 Diamond	26,71,875	★★★★★	An exceptional performer, and a fine showcase for B&W's range of technology	●	3	118x45x65
B&W 805 Diamond	5,34,375	★★★★★	Good, but easier to admire than really love	●	3	42x24x35
B&W PM1	2,79,000	★★★★★	Best standmounter (Premium), Awards 2011	●	1	33x19x30
Burmester B10	5,60,000	★★★★★	Well built, well refined and an engaging listen. We're in love	●	3	39x22x28
Neat Motive SX2	1,75,000	★★★★★	Cohesive, authoritative and downright exciting	●	3	39x21x37
DALI Fazon F5	2,49,000	★★★★★	Stylish deliverers of audiophile sound	●	3	92x28x32
DALI Mentor 6	2,55,000	★★★★★	Dynamic floorstanders that are really fast and agile	●	1	40x8x15
Dynaudio Excite X32	1,94,000	★★★★★	These pack an eloquent, expansive sound	●	4	92x17x27
Dynaudio DM 3/7	1,48,000	★★★★★	Plenty of positives in this mid-range floorstander	●	2	96x20x27
Dynaudio Focus 160	1,88,000	★★★★★	Just do the job and don't intrude on the entertainment	●	6	35x20x29
Dynaudio Excite X12	80,000	★★★★★	They get enough right to warrant the full five stars	●	4	29x17x26
Focal Diablo Utopia	8,99,999	★★★★★	When it comes to levels of insight, little at this price even comes close	●	Any	43x26x43
Jamo R907	4,98,000	★★★★★	The innovative R907s are stunningly capable speakers	●	1	119x44x19
KEF Reference 207/2	12,50,000	★★★★★	Big, bold and stunningly built, they major on bass	●	4	123x40x69
Linn Akurate 242	6,74,860	★★★★★	Very impressive speakers, and ideal in a Linn set-up	●	2	100x21x38
Monitor Audio PL100	2,13,000	★★★★★	For those who want sonic delivery and insight	●	3	37x23x29
Mon. Audio Platinum PL300	4,78,000	★★★★★	Its been a long time coming, and it is well worth the wait	●	3	111x41x47
Mordaunt-Short Perf. 2	1,56,000	★★★★★	Not all-rounders, but exceptional in some areas	●	3	49x24x36
Mordaunt-Short Perf. 6	2,68,000	★★★★★	Among the most realistic-sounding speakers ever	●	2	121x24x37
Neat Petite SX	1,75,000	★★★★★	Small and perfectly formed standmounters	●	6	31x20x18
Neat Ultimatum XLS	6,20,000	★★★★★	An entertainer of the highest order if partnered with care	●	9	38x22x37
PMCD15-All	2,20,000*	★★★★★	They may not look it, but these PMCs sound like every penny's worth	●	1	29x16x28
PMC Fact 3	4,20,000*	★★★★★	Hugely capable but a touch overcontrolled	●	4	54x16x30
PMC Fact 8	5,00,000*	★★★★★	These PMC floorstanders are quite simply magical - even at this price	●	4	103x15x38
PMCFB1i	2,50,000*	★★★★★	Great all-rounders. They have real long-term appeal	●	4	100x20x30
PSB Imagine Mini	49,000	★★★★★	Tiny speakers with a surprising amount of heft. Good for a small room	●	5	23x14x21
PMCPB1i	6,50,000*	★★★★★	Simply excellent speakers: big, bold and accomplished	●	1	108x20x40
PMCTwenty 22	2,20,000*	★★★★★	<b>Best standmounter (Premium), Awards 2012</b>	●	4	41x18x37
PMCTwenty 23	3,25,000*	★★★★★	<b>Best floorstander (Premium), Awards 2012</b>	●	4	92x15x33
ProAc Response D18	1,49,625	★★★★★	Best floorstander (Premium), Awards 2011	●	6	93x19x27
ProAc Studio 140 Mk2	1,16,275	★★★★★	An entertaining and dynamic performer	●	4	104x19x28
Quad ESL 2805	5,40,000	★★★★★	Exceptional electrostatic speakers	●	1	104x70x39
Quad ESL 2812	on request	★★★★★	Still a terrific electrostatic speaker, in certain respects it remains unmatched	●	1	107x69x38
Spendor A6R	2,25,000	★★★★★	An outstanding pair of speakers that do very little wrong	●	5	88x19x28
Sonus F. Cremona Auditor M	4,83,750	★★★★★	One of the best standmounts money can buy	●	2	35x20x37
Spendor A5	1,63,000	★★★★★	The most accomplished speakers for this money	●	4	79x17x25
Spendor A6	2,06,000	★★★★★	Brilliant speakers for the money - a class-leading combination of insight and naturalness	●	4	88x19x28
Spendor A9	4,06,000	★★★★★	Best stereo speakers (Premium), Awards 2010. Stunningly capable	●	4	103x21x35
Spendor D7	3,18,000	★★★★★	The finest Spendors in years	●	6	95x20x32
Spendor SP100R2	6,28,500	★★★★★	Can still compete with the best at this price level	●	2	70x37x43
Spendor SP2/3R2	2,24,500	★★★★★	They're wonderfully natural with a seamless presentation	●	1	55x28x33
Tannoy Definition DC8	2,81,500	★★★★★	Capable of seriously controlled sound	●	3	47x27x26
Totem Mani-2 Signature	2,49,900	★★★★★	When it comes to outright enjoyment we can't think of any rival speakers we prefer for this money	●	442x21x31	
Triangle Quartet	2,48,400	★★★★★	Hugely entertaining premium floorstanders	●	2	123x37x39
Wharfedale Jade-5	1,52,000	★★★★★	Floorstanders that pack immense power and poise	●	3	106x25x40

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## Stereo amplifiers

<b>Integrated</b>	These amplifiers combine a preamp and power section in one box
<b>Power output</b>	A higher number usually means louder, depending on speakers
<b>Digital inputs</b>	Some amplifiers now have a DAC built in, which could be useful

### The shortlist



AWARD WINNER

NAD D 3020



PRODUCT OF THE YEAR

Arcam FMJ A19



AWARD WINNER

Naim Nait 5i

Product	₹	Verdict	Power (w)	DAC	Line level in	MM phono in	MC phono in	USB in	Tape loops	Preamp out	Speaker out	Tone controls	Headphone out	Remote control	Finishes	Dimensions (hwd, cm)
Arcam FMJ A19	72,000	★★★★★	Picky about partners but wonderfully talented	50	6	1	0	1	2	2	2	2	2	1	1	9x43x28
Cambridge Audio Azur 351A	TBA	★★★★★	Worth considering if you prefer an energetic approach	45	5	0	0	1	2	2	2	2	2	1	1	9x43x34
Cambridge Audio Azur 651A	43,000	★★★★★	Meaty and powerful, but not the most refined	75	5	0	0	1	2	2	2	2	2	1	1	12x43x35
Cyrus 6a	1,24,000	★★★★★	<b>Best stereo amp (Mid), Awards 2012</b>	40	6	0	0	0	2	2	2	2	2	2	2	7x22x36
Denon PMA-710	29,700	★★★★★	The most enjoyable Denon amp we've heard in ages	50	5	1	0	2	2	2	2	2	2	2	2	12x43x21
Denon PMA-720AE	34,900	★★★★★	Entertaining and capable, but sonically stubborn	50	4	1	0	1	2	1	2	2	2	2	2	12x43x31
Marantz PM6005	41,900	★★★★★	A shot across the bow to Marantz's rivals. An excellent system	45	5	1	0	1	2	2	2	2	2	2	2	11x44x37
Marantz PM6004	39,900	★★★★★	Product of the Year - Stereo amplifiers, Awards 2011	45	5	1	0	1	2	2	2	2	2	2	2	11x44x37
Marantz PM8003	56,700	★★★★★	Built like a battleship and delivers most of the goods	70	5	1	0	2	2	2	2	2	2	2	2	12x44x36
NAD C326BEE	38,000	★★★★★	A really musical amplifier to grace any budget system	50	7	0	0	2	2	1	2	2	2	1	1	10x44x29
NAD C356BEE	57,000	★★★★★	A party animal of an amplifier	80	7	0	0	2	2	2	2	2	2	1	1	13x44x34
Naim Nait 5i	1,00,000	★★★★★	The Nait 5i gets all the basics right and more	50	4	0	0	1	1	1	2	2	2	1	1	7x44x31
Onkyo A-9030	25,000	★★★★★	Proof that Onkyo knows how to build good stereo gear	65	4	1	0	1	2	2	2	2	2	2	2	14x44x33
Onkyo A-9050	35,000	★★★★★	Lean presentation, but there's plenty to like	75	5	1	0	1	2	1	2	2	2	2	2	14x44x33
Roksan Kandy K2BT	1,30,000	★★★★★	Full of power and punch, but some heart and soul is missing	140	5	1	0	1	2	1	2	2	2	2	2	11x43x38
Roksan Kandy K2	82,600	★★★★★	Best stereo amp (Budget-Mid), Awards 2011	125	5	1	0	1	2	1	2	2	2	2	2	10x43x38
Rotel RA-04SE	45,000	★★★★★	A startling upgrade to an already strong performer	40	4	1	0	1	2	2	2	2	2	2	2	7x44x34
Rotel RA-06SE	91,125	★★★★★	A forceful, articulate listen. Could do with more detail	70	5	1	0	1	2	2	2	2	2	2	2	9x44x34
Rotel RA-10	55,125	★★★★★	<b>Best Stereo Amp (Budget), Awards 2012. PRODUCT OF THE YEAR</b>	40	4	1	0	1	2	2	2	2	2	2	2	27x43x34
Rotel RA-1520	1,05,750	★★★★★	It's got good looks, a good spec, and a great sound	60	5	1	0	1	2	2	2	2	2	2	2	9x43x269
Cyrus 8a	1,82,000	★★★★★	Everything we've come to expect and love about Cyrus	70	5	0	0	1	2	2	2	2	2	2	2	7x22x36
Cyrus 8 DAC	2,19,000	★★★★★	Meticulous and engaging amp and DAC combo	70	6	0	0	0	2	2	2	2	2	2	2	7x22x364
Denon PMA-2010AE	1,39,900	★★★★★	Listen to this amp in full flow and it's a monster	80	4	1	1	2	2	2	2	2	2	2	2	18x43x449
Naim Nait XS	1,75,000	★★★★★	Still a top class premium amplifier	60	3	0	0	2	2	1	2	2	2	2	2	7x43x30
Quad II Classic Integrated	3,80,000	★★★★★	A fine integrated amplifier with a hefty price tag	25	3	1	1	1	1	1	1	1	1	1	1	20x31x38
Roksan Caspian M2	1,80,000	★★★★★	<b>Best stereo amplifier (Premium) Awards 2012</b>	85	5	0	0	1	2	2	2	2	2	2	2	8x43x332
Unison Research Preludio	2,40,000	★★★★★	Rubs shoulders with the very best at this price	14	4	0	0	1	1	1	1	1	1	1	1	20x40x38
Unison Research S6	2,90,000	★★★★★	In the right system, the S6 is truly magical	33	5	0	0	1	1	1	1	1	1	1	1	21x35x49
Unison Research S9	6,45,000	★★★★★	We can't help but love this quirky valve amplifier	35	4	0	0	0	1	1	1	1	1	1	1	25x41x57
Unison Research Simply Italy	1,50,000	★★★★★	A well-engineered valve amplifier at a sensible price	12	5	0	0	1	1	1	1	1	1	1	1	26x19x35
NAD D3020	42,500	★★★★★	<b>Best stereo amplifier (Budget) Awards 2013</b>	30	2	0	0	0	0	1	2	2	2	2	2	19x6x22
Naim Nait 5si	1,25,000	★★★★★	<b>Best stereo amplifier (Mid) Awards 2013</b>	60	3	0	0	1	1	2	2	2	2	2	2	7x43x31
Cyrus DACXP Signature	TBA	★★★★★	With the signature update, the DACXP remains a fine product	70	2	0	0	1	2	1	2	2	2	2	2	7x22x36

## Preamps

Preamps are also known as control units. On a most basic level, they perform two functions: source selection and volume control. Most powered preamps also amplify the signal slightly in order to make matching to a power amplifier easier. Some include phono stages.

Product	₹	Verdict	Line level in	MM phono in	MC phono in	Tape loops	Preamp out	Balanced out	Headphone out	Tone controls	Remote control	Dimensions (hwd, cm)
ATC CA-2	1,43,000	★★★★★	A matchless preamp when paired with the P1 power amp	5	0	0	1	●	●	●	●	9x44x32
Cyrus DACXP+	3,28,000*	★★★★★	Massive ability in a small box	2	0	0	1	●	●	●	●	7x22x36
Linn Akurate Kontrol	4,18,600	★★★★★	Part of the Linn Akurate system - and truly awesome	4	1	1	1	●	●	●	●	9x38x38
NAD C16SBEE	75,000	★★★★★	A brute of a preamp	4	1	1	2	●	●	●	●	8x44x29
Naim NAC 152 XS	1,25,000	★★★★★	It's good, but could do better with dynamics	5	0	0	0	●	●	●	●	7x43x30
Quad Elite Pre	79,000	★★★★★	Doesn't blow us away, but it's still worth consideration	6	1	1	1	●	●	●	●	7x32x31
Rotel RC-1580	1,59,750	★★★★★	A likeable, fully featured performer that delivers much for the money	5	1	1	2	●	●	●	●	10x43x34
Audio Research LS27	7,31,250*	★★★★★	A fine preamp but struggles to shine in comparison to the Reference 75	6	0	0	1	●	●	●	●	13x48x34
Burmester 808 MK5	25,00,000*	★★★★★	A beautifully constructed, highly versatile preamp for serious devotees	Opt	Opt	Opt	Opt	●	●	●	●	95x48x33
Chord Electronics CPA 8000	20,50,000	★★★★★	A magnificent preamp, but not quite the masterpiece its price demands	0	0	2	●	●	●	●	●	31x42x36
Naim NAC252	6,50,000	★★★★★	Makes a magical combination with the NAP250 power amp	6	0	0	0	●	●	●	●	9x43x31

## Power amps

These are effectively the powerhouse of the system. They deliver the high currents necessary to make a loudspeaker work. They can be configured as a stereo unit, or monoblocs, where the circuitry for each channel is housed separately. Don't judge a power amp by its output level.

Product	₹	Verdict	Type	Power (w)	Phono in	XLR in	Dimensions (hwd, cm)	Weight (kg)
ATC P1	2,16,000	★★★★★	A matchless power amp when paired with the CA-2 preamp	Stereo 150	1	1	14x44x35	26
Cyrus Mono X300	3,28,000*	★★★★★	Exceptionally fluid and agile. Recommended	Stereo 235	1	1	7x22x36	73
Linn Akurate 2200	3,33,795	★★★★★	A fine product with a distinctive sonic signature	Stereo 111	1	1	9x38x38	6.5
NAD C275BEE	99,000	★★★★★	A great power amp, best matched with the C16SBEE preamp	Stereo 150	1	0	13x44x35	15
Naim NAP 155 XS	1,50,000	★★★★★	It's a good performer, but not the last word in dynamics	Stereo 60	0	0	7x43x30	7.5
Naim NAP 250	3,75,000	★★★★★	Paired with the NAC252 preamp it's magical	Stereo 80	0	0	9x43x32	16.5
Quad QSP	95,000	★★★★★	Needs to be auditioned - a confident listen	Stereo 140	2	0	15x33x27	14
Rotel RB-1582	1,80,000	★★★★★	Great when paired with the RC-1580 preamp	Stereo 200	1	0	14x43x41	33
Audio Research Reference 75	9,00,000*	★★★★★	A fabulous power amp, match it with care and you'll have sonic magic	Stereo 75	0	1	22x48x50	21
Burmester 911 Mk3	35,00,000*	★★★★★	Awesome price, awesome bit of kit	Stereo 535	0	1	22x48x48	31
Chord SPM 14000 MkII	19,75,000	★★★★★	An awe-inspiring monobloc, yet not quite as sonically rounded as we'd like	Mono 700	1	1	31x48x69	75

## Instant expert... hi-fi separates

### 1. Why matching pairs are a winning combination

We advocate separates over all-in-one systems. Sound-wise, separates tend to perform better, but when buying we still suggest you demo the same maker's matching amp and CD player. The kit usually shares the same design team and will sonically complement each other: if you like the sound of the amp, you'll probably enjoy the CD player, too.

### 3. Position before you listen - and don't stack it, rack it

You've bought your shiny new system. But you're not going to stack your new amp, CD spinner and turntable on that rickety table, are you? And don't even think of putting the kit on the floor. To sound it's best, hi-fi kit needs a dust-free, level and secure base. Invest pounds in a dedicated rack, and the sonic (and visual) rewards justify the outlay.

### 2. Listen to your favourite music, not the dealer's

Hi-fi dealers should have a decent CD and vinyl collection for demo purposes, but we suggest you take your own. Take tunes you know so you can concentrate on how the kit is performing, rather than on the new music. And don't just take your 'good'-sounding CDs. If you listen to lots of compressed pop, take it and hear exactly how it sounds.

### 4. Give your amplifier room to breathe

Well done for buying that nice equipment rack, but before you undo all your good work, make sure you give your stereo amplifier room to breathe. These machines get hot, and the chassis vents shouldn't be covered up. The top shelf of your rack is ideal, but if you also own a top-loading CD player and/or turntable you'll need clearance for all.

### 5. Keep on running, keep on improving

Hi-fi units are also (sort of) like Spanish footballers. No, not constantly feigning a blown fuse, but happiest playing in the heat. New kit can take weeks to reach optimum levels. Once run-in - unless you have an environmental conscience - we suggest you leave your kit on. Otherwise, give it around half-an-hour to warm up before you hit play.



## iPod docks

**Docks with power** These are ready-made systems for your iPod; usually include speakers

**Docks without power** These integrate an iPod into an existing system as a line level source

### The shortlist



**Bowers & Wilkins Zeppelin Air**



**AWARD WINNER**  
**Epoz Aktimate Micro**



**JBL OnBeat Venue LT**

Product	₹	Verdict	AirPlay	Bluetooth	Dock type	Aux	Power (w)	Dimensions (hwd, cm)
Arcam rCube	42,300*	★★★★★			iOS	●	90	20x20x20
Bose SoundDock II	14,513	★★★★★			iOS	●	n/a	17x30x17
Epoz Aktimate Micro	27,500	★★★★★			iOS	●	40	24x15x20
Gear4 AirZone Series 1	19,900	★★★★★	●		iOS	●	n/a	18x33x19
GenevaSound Model S	24,990	★★★★★			iOS	●	30	14x24x19
JBL OnBeat Venue LT	15,990	★★★★★		●	iOS	●	30	13x42x14
Logitech S715i	9995	★★★★★			iOS	●	20	6x39x13
Logitech UE Air Speaker	TBA	★★★★★		●	iOS	●	n/a	17x53x15
Monitor Audio i-deck 100	20,000	★★★★★			iOS	●	90	25x32x21
Monitor Audio i-deck 200	TBA	★★★★★			iOS	●	140	25x55x21
Revo K2	30,000*	★★★★★			iOS	●	40	33x11x11
B&O BeoSound 8	92,000	★★★★★			iOS	●	n/a	24x66x16
Bose SoundDock 10	48,263	★★★★★		●	iOS	●	n/a	22x43x24
B&W Zeppelin Air	48,000	★★★★★		●	iOS	●	150	17x54x21
Epoz Aktimate Maxi	56,450	★★★★★			iOS	●	60	32x21x265
Geneva Lab Model L	1,10,000	★★★★★			iOS	●	100	29x45x37
Geneva Lab Model M	54,990	★★★★★			iOS	●	50	20x37x25
Geneva Lab Model XL	2,00,000	★★★★★			iOS	●	600	79x55x37
JBL OnBeat Xtreme	24,990	★★★★★		●	iOS	●	120	23x44x24
Loewe AirSpeaker	TBA	★★★★★		●	iOS	●	4x20	13x24x244
Marantz Consolette	75000*	★★★★★		●	iOS	●	150	26x54x21

## Wireless speakers

**Bluetooth** Universal wireless system that's incorporated into most sources

**AirPlay** Apple's proprietary wireless system; works over your home network

Product	₹	Verdict	AirPlay	Bluetooth	Aux	Charging	Battery	Dimensions (hwd, cm)
B&O Beolit 12	66,600	★★★★★	●	●	●	●	●	19x23x13
B&W A5	38,000	★★★★★	●	●	●	●	●	18x30x20
B&W A7	62,750	★★★★★	●	●	●	●	●	22x36x16
Bose SoundLink Air	23,513	★★★★★	●	●	●	●	●	17x31x10
Bose SoundLink W'less Mobile	20,138	★★★★★	●	●	●	●	●	13x24x5
Cambridge Audio Minx Air 100	36,100	★★★★★	●	●	●	●	●	18x35x12
Cambridge Audio Minx Go	12,500	★★★★★	●	●	●	●	●	23x24x6
JBL Charge	9990	★★★★★	●	●	●	●	●	18x7x7
Bose SoundLink Mini	16,200	★★★★★	●	●	●	●	●	5x18x6

# Headphones

**Ear tips** Most in-ears come with these. Experiment with sizes to get the best fit.  
**In-line remote** Mostly for Apple devices, but Android-friendly units are growing. Handy.

## The shortlist



**AWARD WINNER**  
SoundMAGIC E10



**PRODUCT OF THE YEAR**  
AKG K451



**AWARD WINNER**  
Sennheiser Momentum

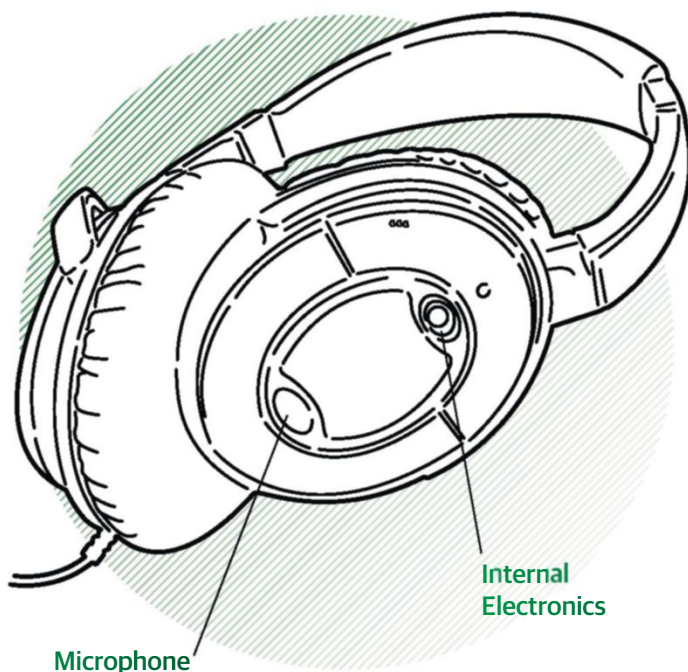
Product	₹	Verdict	In-ear	On-ear	Type	Noise cancelling	Wireless	Weight (g)
Audio Technica ATH-CK550	TBA	★★★★★	●		Closed			8
Audio Technica ATH-CKS55i	TBA	★★★★★	●		Closed			6
Audio Technica ATH-T400	TBA	★★★★★	●		Closed			260
Beyerdynamic DTX101IE	6795	★★★★★	●		Closed			11
Nokia BH-504	6500	★★★★★	●		Closed		●	108
Panasonic RP-HJE170	799	★★★★★	●		Closed			3
Panasonic RP-HTX7	3999	★★★★★	●		Closed			153
Sennheiser CX 300-II	3490	★★★★★	●		Closed			4
Sennheiser CX281	2790	★★★★★	●		Closed			16
Sennheiser HD 202	2290	★★★★★	●		Closed			130
Sennheiser MM 70i	7490	★★★★★	●		Closed		●	12
Sennheiser MM50	4990	★★★★★	●		Closed			7
Sennheiser PX100-II	3990	★★★★★	●		Open			80
Skullcandy Full Metal Jacket	3559	★★★★★	●		Closed			13
Skullcandy Icon 3	1949	★★★★★	●		Closed			45
SoundMagic E10	2500*	★★★★★	●		Closed			11
SoundMagic PL30	1486	★★★★★	●	●	Closed			10
SoundMagic PL50	2730	★★★★★	●		Closed			8
Sony MDR-570LP	2990	★★★★★	●		Closed			110
B&W P7	33,990	★★★★★	●		Closed			290
Audio Technica ATH-ANC1	TBA	★★★★★	●		Closed		●	100
Audio Technica ATH-ES55	TBA	★★★★★	●		Closed			120
Audio Technica ATH-ES7	TBA	★★★★★	●		Closed			160
Audio Technica ATH-ES88	TBA	★★★★★	●		Closed			130
Audio Technica ATH-EW9	TBA	★★★★★	●		Closed			33
Audio Technica ATH-M50	TBA	★★★★★	●		Closed			284
Audio Technica ATH-W1000	TBA	★★★★★	●		Closed			350
Audio Technica ATH-W1000X	TBA	★★★★★	●		Closed			350
Audio Technica ATH-WS55i	TBA	★★★★★	●		Closed			165
AKG K3003i	1,00,000*	★★★★★	●		Closed			10
AKG K370	8000	★★★★★	●		Closed			4
AKG K451	5000	★★★★★	●		Closed			120
AKG Q701	19,990	★★★★★	●		Open			236
AKG Q460	TBA	★★★★★	●		Closed			120
Beyerdynamic DT880	22,399	★★★★★	●		Open		●	340
Beyerdynamic DTX80	4999	★★★★★	●		Closed			12



## HEADPHONES continued

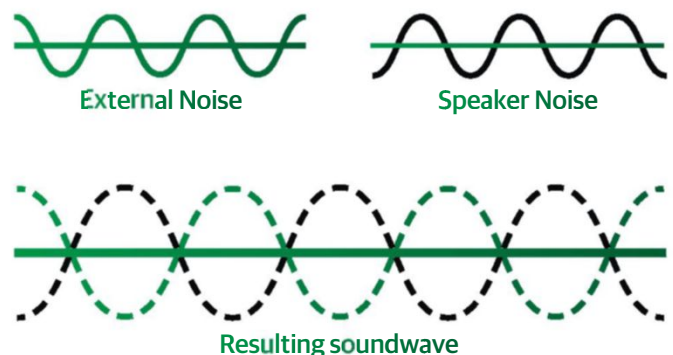
Product	₹	Verdict	In-ear	On-ear	Type	Noise cancelling	Wireless	Weight (g)
Beyerdynamic MMX 101iE	4750	★★★★★ <b>Best in-ears (Mid), Awards 2012</b>	●		Closed	●		11
Beyerdynamic T1	1,00,000*	★★★★★ Best home on-ear headphones (Premium), Awards 2010.		●	Closed			350
Beyerdynamic T50P	11,800	★★★★★ <b>Best portable on-ears (Premium), Awards 2012</b>	●		Closed			174
Bose Around-ear 2	8663	★★★★★ Packed with clever technology and work well		●	Closed			142
Bose MIE2i	7650	★★★★★ A perfect headphone meets microphone solution		●	Closed			19
Bose Mobile in-ear headset 2	8213	★★★★★ Unobtrusive in place, but lacking in excitement		●	Closed			18
Bose QuietComfort 15	17,550	★★★★★ <b>Best noise-cancelling headphones, Awards 2012</b>	●		Closed	●		227
B&W P3	16,500	★★★★★ Stylish and sonically talented on-ear headphones		●	Closed			130
B&W P5	23,500	★★★★★ Aesthetically beautiful and aurally accomplished too		●	Closed			195
Focal Spirit One	19,999	★★★★★ Refined enough, but not the most exciting		●	Closed			225
Grado SR80i	12,000*	★★★★★ <b>Best home on-ear headphones (Budget-Mid), Awards 2012.</b>	●		Open			200
Harman/Kardon CL	9990	★★★★★ An impressive headphone debut for Harman/Kardon		●	Closed			195
Klipsch Image One	6600	★★★★★ Perfect for those who enjoy a lot of bass		●	Closed			138
Klipsch Image X5	9750	★★★★★ Still a great buy, with a very balanced sound		●	Closed			11
Klipsch Image X10i	12,000	★★★★★ Best in-ears (Premium), Awards 2011		●	Closed			320
Klipsch S4i	4490	★★★★★ These Klipschs are great all-rounders, with an exciting edge		●	Closed			12
Logitech UE9000	31,995	★★★★★ Could be more refined, but make up for this with bundles of energy			Closed		●	378
Martin Logan Mikros 70	TBA	★★★★★ If you like your music to be presented with a matter-of-fact approach, these are just the job		●	Closed			13
Monster Beats by Dre iBeats	15,000	★★★★★ For smooth, bassy sounds they're ace		●	Closed			n/a
Monster Beats Pro by Dre	38,000	★★★★★ Brilliant at what they do well		●	Closed			299
Oppo PM-1	79,999	★★★★★ Oppo's first pair of headphones are a resounding success		●	Open			395
Philips Fidelio M1	16,000*	★★★★★ <b>Best portable on-ears (Mid-Premium), Awards 2012</b>	●		Closed	●		166
PSB M4U2	28,000	★★★★★ PSB's first headphones are truly brilliant. Hear them now!		●	Closed			362

## How Does Noise Cancelling Work?



This kind of design is usually battery-powered and will reduce background noise. They contain microphones that pick up external noise, and then invert its waveform electronically before outputting it to your ears. This inverse wave works against the original, and greatly reduces the amount you hear.

It works best on continuous low-frequency sounds such as plane engines and Brian Blessed humming. It's not unusual for such designs to tweak tonal balance to improve things, although some add a degree of hiss in the process.



## Try these

**Bose QuietComfort 15** ★★★★★ ₹19,013

"The noise-cancelling is so effective it can feel like silence is being pushed into your head. Mid-tune, it's almost as if the outside world disappears completely."

**Logitech UE9000** ★★★★★ ₹35,000

"They could do better in terms of refinement - but if it's energy and entertainment you're after (as well as Bluetooth), they're pretty much spot-on."

**PSB M4U2** ★★★★★ ₹28,000

"If you want to turn your office, flight or train journey into a private listening experience of exceptional quality, these are the headphones to get."

## HEADPHONES continued

Product	₹	Verdict	In-ear On-ear Type	Noise cancelling Wireless	Weight (g)
Sennheiser HD 380 Pro	9990	★★★★★	● Closed		220
Sennheiser HD 25-1 II Adidas	3990	★★★★★	● Closed		140
Sennheiser HD 800	84,990	★★★★★	● Open		350
Sennheiser IE 8i	24,990	★★★★★	● Closed		18
Sennheiser IE 80	27,990	★★★★★	● Closed		5
Sennheiser MM 400-X	17,990	★★★★★	● Closed	●	105
Sennheiser Momentum	24,990	★★★★★	● Closed		190
Sennheiser PXC 450	27,990	★★★★★	● Closed		240
Sennheiser RS 160	13,490	★★★★★	● Closed	●	226
Sennheiser RS 180	21,990	★★★★★	● Open	●	204
Sennheiser RS 220	29,990	★★★★★	● Open	●	329
Sennheiser X 320	7990	★★★★★	● Closed		280
Shure SE115	8200	★★★★★	● Closed	●	30
Shure SE310	21,000	★★★★★	● Closed		7
Shure SE420	29,000	★★★★★	● Closed	●	29
Shure SE535	31,000	★★★★★	● Closed	●	272
Shure SRH1840	49,778	★★★★★	● Open		268
Sony MDR-1R	TBA	★★★★★	● Closed		240
Sony MDR-Z1000P5	19,990	★★★★★	● Closed		270
Sony XBA-3iP	7990	★★★★★	● Closed	●	7
SoundMagic HP100	15,000*	★★★★★	● Closed		228

## Headphones Jargon Buster

## OVER-EAR



The most popular hi-fi headphone design (also called circumaural), these cup your ears completely, usually with semi-air-tight earcups. You'll notice cans of this type used as monitors in recording studios: depending on the type of design they use they can be extremely effective at cutting out the outside world.

## ON-EAR



Supra-aural or on-ear designs tend to be smaller and lighter than circumaural models. They sit on your ear rather than over it, usually pressing on to it as well. Some listeners find them lighter and easier to wear for extended listening than over-ear models, but they do tend to allow in more sounds from outside.

## IN-EAR



Gone are the days when everyone else needs to hear your music. In-ear buds are a great way to isolate yourself in sound. Nowadays, in-ears usually come with rubber tips, which provide a good seal and help the music travel only down your ear canals. A better fit means better sound, so experiment with tip sizes.

## Try these

## AKG K550 ★★★★★

"The K550s are sweetly communicative, handle tempos in a natural, unforced manner and punch into and out of low-frequency information with precision."

## Philips Fidelio M1 ★★★★★

"A rounded, refined presentation. Vocals have room to breathe, while high-frequency sounds are natural and don't harden up when you crank the volume."

## Sony XBA-2iP ★★★★★

"Agility and precision is up there with the very best at this price, and the spacious delivery allows for plenty of detail all the way up the frequency range."



## Stereo systems

This category includes a wide range of products including all-in-one packages where the speakers are part of the system, through to micro systems where the electronics are housed separately from the speakers. A streaming option is available on many newer systems.

### The shortlist



**PRODUCT OF THE YEAR**

#### Denon D-M39DAB

Awards 2012: Best Micro System



#### Ruark R4i

Awards 2012: Best All-In-One Music System



#### Onkyo CR-N755

Awards 2012: Best Networked Micro System

Product	₹	Verdict	CD	Streaming	Internet Radio	DAB	FM	Analogue inputs	Digital inputs	Headphone out
Denon CEOL Piccolo	39,900	★★★★★	No matter what the source, the CEOL Piccolo will play all your music in superb style	●	●			●	●	●
Denon D-M39	44,900	★★★★★	<b>Best micro system, Awards 2012. PRODUCT OF THE YEAR</b>	●	●	●	●	●	●	●
Marantz M-CR502	31,758	★★★★★	Exceptional precision and timing, and better value	●		●	●	●	●	●
Onkyo CR-N755	32,000*	★★★★★	<b>Best networked micro system, Awards 2012</b>	●	●	●	●	●	●	●
Marantz M-CR610	54,900	★★★★★	<b>Best music system (premium), Awards 2013. PRODUCT OF THE YEAR</b>	●	●	●	●	●	●	●
Arcam Solo Mini	87,000	★★★★★	Best CD system (Mid), Awards 2010	●		●	●	●	●	●
Arcam Solo Neo	1,38,000	★★★★★	Extra functionality over the original Solo - great buy	●	●	●	●	●	●	●
Denon CEOL (RCD-N7)	39,900	★★★★★	Smooth and detailed, with great features	●	●	●	●	●	●	●
Linn Majik DSM	3,85,000	★★★★★	A thoughtfully designed system and a pleasure to use	●	●	●	●	●	●	●
Marantz M-CR603	39,900	★★★★★	Best microsystem (Premium) Awards 2011	●	●	●	●	●	●	●
Naim Uniti 2	3,25,000	★★★★★	Best Network Music Player (Premium)	●	●	●	●	●	●	●
Naim UnitiQute 2	1,25,000	★★★★★	Systems Product of the Year	●	●	●	●	●	●	●
Ruark Audio R4i	60,000*	★★★★★	<b>Best all-in-one music system, Awards 2012</b>	●	●	●	●			

## Media streamers

These access the music or video files you have stored on your network. Check for file compatibility and decent control apps that improve usability.

Product	₹	Verdict	HDMI out	Optical out	Co-axial out	HDMI in	Optical in	Co-axial in	USB in	Wireless	Resolution (bit/kHz)	Video
Apple TV	8900	★★★★★	1	1	0	0	0	0	1	●	16/48	●
Asus O!Play HD2	8595	★★★★★	1	1	1	0	0	0	3		20/48	●
Cambridge Audio NP30	38,400	★★★★★	0	1	1	0	0	0	2	●	24/96	
Denon DNP-720AE	29,990	★★★★★	1	0	0	0	0	1		●	24/192	
Camb. Audio Stream Magic 6	69,700	★★★★★	0	1	1	0	1	1	1	●	24/96	
Cyrus Lyric 09	4,40,000	★★★★★	0	0	0	0	2	2	3	●	24/192	
Pioneer N50	NA	★★★★★	0	1	0	0	1	0	1		24/192	
Rotel RT-09	NA	★★★★★	0	1	1	0	1	1	1	●	24/192	
Cambridge Audio MinxXi	55,500	★★★★★	0	0	0	0	1	1	1		24/96	
Cyrus Stream X2	1,45,000	★★★★★	0	0	1	0	2	3	1	●	24/192	
Cyrus Streamline2	1,75,000	★★★★★	0	0	1	0	2	3	1	●	24/192	
Cyrus Stream XP2-QX	3,08,000	★★★★★	0	0	1	0	2	3	1	●	24/192	
Linn Kiko	3,20,000	★★★★★	1	0	0	4	1	0	0	●	24/192	
Naim NDX	3,50,000	★★★★★	0	1	1	0	0	1	1	●	24/192	
Naim Uniti 2	3,25,000	★★★★★	0	0	0	0	3	2	1	●	24/192	
Naim UnitiLite	2,00,000	★★★★★	0	0	0	0	3	2	1	●	24/192	

## Tablets

Android	Offers great flexibility and innovation
Apple iOS	Fantastic ease of use; massive choice of quality apps
Windows	New kid on the block. Watch this space

### The shortlist



Apple iPad Air



Apple iPad Mini Retina



PRODUCT OF THE YEAR  
Google Nexus 7

Product	₹	Verdict	OS	3G	Screen size (in)	Resolution	Storage (GB)	Dimensions (hwd, mm)
Amazon Kindle Fire HD 16GB	14,590	★★★★★	Android	●	7	1280x800	16/32	241x186x9
Apple iPad 2 16GB Wi-Fi	24,500	★★★★★	iOS	●	9.7	1024x768	16/32	241x186x9
Apple iPad Mini 64GB Wi-Fi	33,900	★★★★★	iOS	●	7.9	1024x768	16/32/64	200x135x7
Apple iPad 4 32GB Wi-Fi	37,900	★★★★★	iOS	●	9.7	2048x1536	16/32/64	240x190x9
Asus Eee Pad Transformer	49,999	★★★★★	Android	●	10.1	1280x800	16/32	271x177x13
Asus Eee Pad Trans Prime	42,999	★★★★★	Android	●	10.1	1280x800	16/32	181x263x8
Google Nexus 7	9999	★★★★★	Android	●	7	1280x800	16/32	99x120x11
Google Nexus 10	34,413	★★★★★	Android	●	10	2560x1060	16/32	264x178x9
Amazon Kindle Fire HDX 7	25,000*	★★★★★	Android	●	7	1920x1200	16/32/64	186x128x9
Apple iPad Mini/Retina display	28,900	★★★★★	iOS 7	●	7.9	2048x1536	16/32/64	200x135x7
Apple iPad 4 16GB Wi-Fi	31,900*	★★★★★	iOS	●	9.7	2048x1536	16/32/64	240x190x9
Apple iPad Air	35,900	★★★★★	iOS 7	●	9.7	2048x1536	16/32/64	240x170x8
Google Nexus 7 (2013)	20,999	★★★★★	Android	●	7	1920x1200	16/32	200x114x9
Samsung Galaxy Note 10.1	49,470	★★★★★	Android	●	10.1	2500x1600	16/32/64	171x243x8
Sony Xperia Tablet Z	46,990	★★★★★	Android	●	10.1	1920x1200	16/32	72x266x69

## Things to consider: tablets



### Camera

Most tablet cameras are decent, but they won't be able to beat a dedicated camera in terms of picture quality. Think long and hard if you're looking to capture footage as quality can be inconsistent.



### Apps

iOS is the king of apps, but Android is hard on its heels and Windows is catching up. If apps are your thing then your choice may come down to which ones are available on each platform, rather than quantity.



### Keypad

Want to increase productivity? On-screen keypads are a mixed bag, but some have optional (and expensive) physical keyboards. Keep that in mind if you're looking to do some work on the go.



### Ecosystem

iOS, Android and Windows 8. Each one is better (or worse) than the other, in some way. Apple has the apps, while Android is customisable and Windows offers a lot in terms of functionality.

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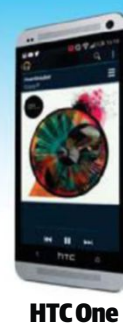
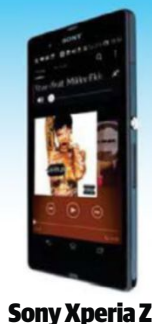
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# Smartphones

Android	Offers great flexibility and innovation
Apple iOS	Fantastic ease of use; massive choice of quality apps
Windows	New kid on the block. Watch this space

## The shortlist



			OS	4G	Screen size (in)	Resolution	Storage (GB)	Dimensions (hwd, mm)
Product	Verdict							
Google Nexus 5	★★★★★	A powerhouse of a smartphone in every respect	Android	●	5	1920x1080	16/32	138x69x9
Apple iPhone 5	★★★★★	Faster, lighter and better: iPhone gets its annual facelift	iOS	●	4.0	1136x640	16/32/64	124x59x8
Google Nexus 4	★★★★★	A top performer and a brilliant realisation of Android power	Android		4.7	1280x768	8/16	134x69x9
HTC One Max	★★★★★	A fine performer but could make better use of its big screen	Android	●	5.9	1920x1080	32	146x71x9
HTC One X+	★★★★★	Well worth considering: good for music and a joy to use	Android		4.7	1280x720	32/64	
LG G-Flex	★★★★★	All the pros of the G2 and more, but with a low-res screen	Android	●	6	1280x720	32	161x82x8
Nokia Lumia 920	★★★★★	A promising start for Nokia's flapship	Windows	●	4.5	1280x768	32	130x71x11
Nokia Lumia 1520	★★★★★	Apps still disappoint, but this is the best Windows Phone yet	Windows	●	6	1920x1080	32	163x85x9
Oppo N1	★★★★★	Quirky and flexible, this is a great effort from a promising brand	Android	●	5.9	1920x1080	16	171x83x9
Samsung Galaxy Note III	★★★★★	The original phablet. Updated and still among the best	Android	●	5.7	1920x1080	16/32	151x80x8
LG G2	★★★★★	Unbridled power and thoughtful design. A fantastic phone	Android		5.2	1920x1080	16/32	139x71x9
Samsung Galaxy S III	★★★★★	Best smartphone, Awards 2012	Android		4.8	1280x720	16/32	137x71x9
HTC One M8	★★★★★	Improves considerably on its predecessor. Does very little wrong	Android	●	5	1920x1080	32	146x71x9
Sony Xperia Z1	★★★★★	Sony fans will love it. A speedy, sleek and impressive smartphone	Android	●	5	1920x1080	16	144x74x9
HTC One	★★★★★	A true marvel in terms of smartphone tech	Android	●	4.7	1920x1080	16	
Apple iPhone 5S	★★★★★	Best smartphone, Awards 2013. PRODUCT OF THE YEAR	iOS	●	4.0	1136x640	16/32/64	124x59x8
Google Nexus 5	★★★★★	A powerhouse of a phone in every respect	Android		4.95	1920x1080	16/32	138x69x9
Nokia Lumia 925	★★★★★	The best Windows Phone yet	Windows	●	4.5	1280x768	16/32	129x71x9
Samsung Galaxy S4	★★★★★	Better than its predecessor but not as good as its rivals	Android	●	5.0	1920x1080	16/32/64	137x70x8

## Consider these

Wired cans sound better, but wireless is catching up. Here are the best on offer



### Logitech UE9000

Solid build and effective noise-cancelling features make the UE 9000 a fine proposition. The wireless connection is a tad unrefined but the energy produced is excellent. Good for six hours' use.



### Parrot Zik

Stylish and advanced, the Zik features the 2.1 A2DP variant of Bluetooth which doesn't quite match aptX. Still, with NFC on board and a detailed sound to boot, the Zik should be on your list.



### Philips Fidelio M1BT

Our 2013 Award-winners boast aptX compatibility and easy-to-use controls. Its in the sound where they really shine, showing off an excellent turn of pace with bags of detail. Good for 10 hours' use.



### Sennheiser MM400-X

A compact, portable design and low(ish) price make these cans quite enticing. Vocals have plenty of detail and directness, and with aptX along for the ride too, these are some capable headphones.

## HDMI cables

Digital cables that carry both picture and sound. These carry control signals as well, so they can integrate the operation of components in your system.

Product	₹	Verdict	Length as tested (m)	HDMI type
Audioquest Pearl	2100	★★★★★ <b>Best HDMI cable, Awards 2012</b>	1	1.4
Chord Company Supershield	5000	★★★★★ Still a class-leading cable, but now it's 1.4 too	1	1.3
Kimber Kable HD-09	6500	★★★★★ Picture quality is up with the best and it creates a wide sound field	2	1.3
Profigold SKY HDMI Ethernet	2999	Not rated <b>Not rated</b>	2	1.4
QED Performance HDMI-e	7410	★★★★★ Perfectly good cable that just falls down in its pricing	7	1.4
QED Profile HDMI	2225	★★★★★ Now with 1.4 status, this is still a worthy cable	1	1.4
Wireworld Chroma 6	1589	★★★★★ Best HDMI cable, Awards 2010. Great upgrade cable for higher-end systems	1	1.4
Audioquest Cinnamon	6600	★★★★★ A top-notch HDMI that's a credit to any system	2	1.4
Audioquest Forest	9300	★★★★★ A true and worthy rival to Chord's Supershield and again	5	1.4
Bridge Connect BPE105	3399	Not rated <b>Not rated</b>	1	1.4b
Chord Co. Active Silver + HDMI	9500	★★★★★ An impressive successor to the old Active cable	1	1.4
Chord Co. Supershield (5m)	9000	★★★★★ A punchy award winner that defies its low price tag	5	1.3a
QED Reference	7740	★★★★★ An assured, but expensive, performer	5	1.3ab
van den Hul Flat HDMI (3m)	10700	★★★★★ One of the best HDMI cables we've ever heard	3	1.3
van den Hul Ultimate	13000	★★★★★ It's pricey, but has good performance	1	1.3

## Digital interconnects

<b>USB</b>	An increasingly common way to connect your computer to your hi-fi
<b>Optical</b>	Digital cable that uses light to transmit sound between components
<b>Coaxial</b>	Sends audio via an electrical signal between your hi-fi and AV kit

### The shortlist



**QED Performance Graphite**  
Awards 2012: Best Optical Digital Cable

"The sound through this cable is incredibly detailed and startlingly clear. There's a good grasp of dynamics, too."



**QED Performance**  
Awards 2012: Best Coaxial Digital Cable

"The QED is good at conveying subtleties. There's a good sense of energy too, with plenty of attack."



**Supra USB 2.0**  
Awards 2012: Best USB Cable

"It helps deliver impeccable timing and plenty of energy, both of which translate into a tangible sense of fun."

Product	₹	Verdict	Type	Length tested (m)
Profigold SKY Optical	2299	Not rated <b>Not rated</b>	Optical	2
QED Performance Digital	4135	★★★★★ <b>Best coaxial digital cable, Awards 2012</b>	Co-axial	1
QED Performance Graphite	2760	★★★★★ <b>Best optical digital cable, Awards 2012</b>	Optical	1
Supra AnCo (coaxial)	4700	★★★★★ Ideal if you like it meaty and beaty - it revels in low-end stuff	Co-axial	1
Wireworld Nova 6	1059	★★★★★ Like and up-and-coming band: unrefined but likeable and energetic	Optical	1
Wireworld Ultraviolet USB	1324	★★★★★ <b>Best USB cable, Awards 2010. If you use digital kit, this needs to be on your audition list</b>	USB	1
Chord Company Optichord	3300	★★★★★ Confident, competent and extremely likeable. Highly recommended	Optical	1
Bridge Connect BEA562	2599	Not rated <b>Not rated</b>	Optical	2



## Analogue interconnects

These carry audio signal from source to amplifier, or between pre-amplifier and power amplifier. Some use a shielding construction to reduce external electrical interference.

### The shortlist



AWARD WINNER

#### Atlas Element Integra

Awards 2012: Best Analogue Interconnect

"Improves on many of the things that the former champ did right. The Element Integra is highly recommended."



#### Furutech Alpha-Line 1

"If your current soundstage sounds a little loose and disorganised, this can help to snap everything back into place. Best for owners of midrange systems."



#### Chord Company Chameleon Plus

"Give your kit a serious shot in the arm – an overly dull system would certainly benefit from its ability and verve. One of our long-time favourites for high-end set-ups."

Product	₹	Verdict	RCA phono 3.5mm-to-RCA XLR (balanced)	Length tested (m)
Wireworld Luna 6	979	★★★★★	●	1
Belkin Mini-Stereo Cable	649	★★★★★		1.8
Chord Company Crimson Plus	2800	★★★★★	●	1
Profigold PRO13301	899	★★★★★		1
QED Performance Audio 2	4770	★★★★★	●	1
QED Profile	1855	★★★★★	●	1
Wireworld Oasis 6	2914	★★★★★	●	1
QED Profile J2P	1590	★★★★★	●	1.5
QED Reference Audio J2P	3290	★★★★★	●	3
van den Hul The Name	8000	★★★★★	●	0.8
Bridge Connect BEA423	2499	Not rated	●	3
Chord Co. Chameleon Plus	8300	★★★★★	●	1
QED Signature Audio S	23,535	★★★★★	●	1
van den Hul The Wave	15,900	★★★★★	●	1

## Speaker cables

These carry the audio signal from your amplifier to your speakers. Bi-wiring uses two runs of cables per speaker and can lead to improvements in the speakers' performance.

Product	₹	Verdict	Biwire
Atlas Equator 2.0 OFC	750/m	★★★★★	
SCP 16/20FC-HD-WT	174/m	Not rated	
Chord Co. Carnival Silv. Screen	380/m	★★★★★	
Chord Company Leyline	160/m	★★★★★	
QED Silver Anniversary XT	668/m	★★★★★	
Wireworld The Stream 16/2	2119/2m	★★★★★	
Wireworld The Orbit	4239/2m	★★★★★	●
QED Revelation	1908/m	★★★★★	
QED Silver Anniv. XT Biwire	1336/m	★★★★★	●
van den Hul CS122	2050/m	★★★★★	●

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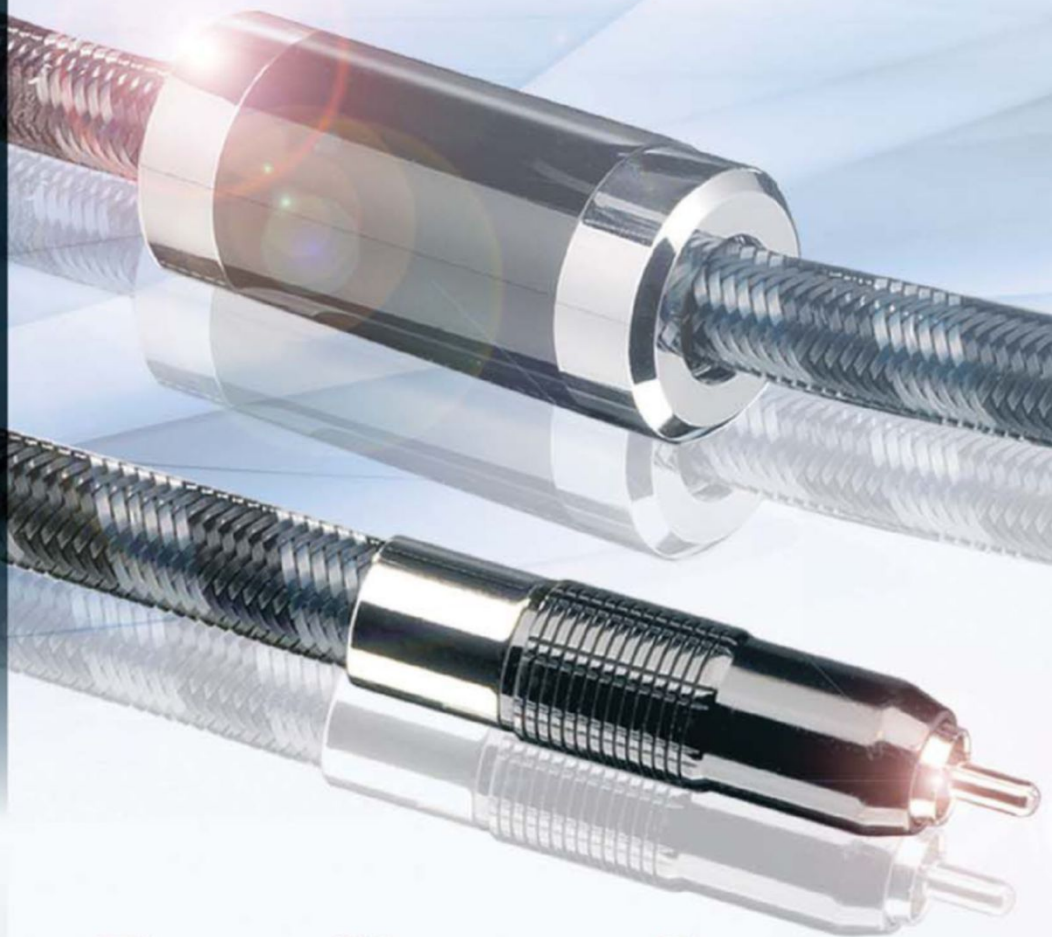
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# TOP SHELF

## Show time!

The third edition of the *What Hi-Fi* show saw more brands, and more AV thrills. While the ones who attended relished on what was at display, we eyed the ones we could lay our hands on for a review!

**WHAT HI-FI?** SOUND AND VISION **SHOW 2015**



**W**e can safely tell you that we have had a cracker of a show yet again. The *What Hi-Fi* Show 2015 was home to the best of the best AV gear you could lay your hands on, take a look at, or lend a ear to. There was no dearth of dream-worthy purist two-channel or home-theatre equipment, two of which, we will speak about this time and cover in a detailed review in the coming months.

The first in the list is the Denon AVR-X7200W, which is really the company's way of telling the competition to bugger off. Why is the new, very expensive Denon AV hub so very enticing? To kick it off, the X7200 features the best of both worlds when it comes to handling future surround sound formats. Meaning, you get built-in support for Dolby Atmos and for a few thousand rupees more, you are good to go with Auro-3D support once the upgrade kit is released.

What's more? Denon has also assured hardware upgrade to a full HDMI 2.0/ HDCP 2.2 (the must-have spec to play 4K-ready Blu-rays as they release

this year) compliance. Let's talk specs. On tap, you have 9.2-channels of surround that you could expand to 11.2 channels via the built-in pre outs. There's 150W of power per channel, 8 HDMI inputs and more crucially, 3 HDMI outs. Built-in WiFi, Bluetooth and the capability to streaming via DNLA, Apple Airplay and more take care of the wireless generation. We have already got our hands on a review sample and a full test should be coming up soon. Next up it is a brand from the Netherlands that you might not have heard of much but is highly respected in the AV circles for its potential.

Mola Mola showed off its pre-amp named Makua to much intrigue from the visiting crowd. The aim is to provide rich natural sound that an audiophile ear would beg for. The product features 5 balanced and 5 unbalanced inputs, all of them are routable through optional processor boards and the Makua also has room to fit a DAC and a phono stage as optional extras. If you couldn't make it to the show for any reason, a full report will be out in the next issue so watch out for that.



Peer any closer in to the massive block of circuitry inside the Denon X7200W AVR and you almost get the feel of flying over a futuristic city. Also seen below it is the a





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