

## JAVA HiFi Double Shot Integrated Amplifier

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### JAVA HiFi DOUBLE SHOT INTEGRATED AMPLIFIER REVIEW



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Martin Bell is the owner of JAVA HiFi and if you venture over to their website the first page you come to boldly declares (well, actually it's in a rather nice and fine font for the most part, but it is printed in upper case) "OUR AIM IS TO BRING MUSIC LOVERS CLOSER TO THE MUSIC THEY LOVE".



This resonates with me a great deal and whilst some will spout "facts" and figures and us (you) all day long, the truth of the matter is that at the end of the day all that matters is that whatever bit of kit we put in our system, the main aim is to enhance our connection and enjoyment of the music. I'm sure some review folk might not agree with this and I've seen some scoff at comments like these as being somewhat clichéd, but the truth of the matter is that our little bits of HiFi equipment are no more and no less than Machines For Joy and the sole purpose of their existence is to bring us closer to the music we love...and so my thoughts are very much in line with those of Martin and the JAVA HiFi team.



BRING ALL  
YOUR MUSIC...



TO LIFE  
AURALiC

ALTAIR G1.1 DIGITAL  
AUDIO STREAMER

DISCOVER >

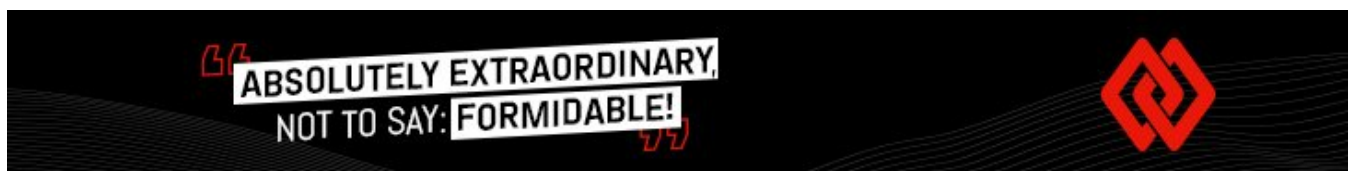
Indulge me a bit on this point, if you would be so kind.

As a consumer, I have absolutely no interest (like absolutely zero interest) in what it takes to make whatever bit of kit I own whether that is audio equipment or a microwave (actually, I don't own a microwave, but you get the picture) perform its function. Yes, I can recognise when a product performs its function in poor, exemplary, or mediocre fashion, but how it gets to that performance interests me not one iota. I'm very much the same with cars; I know where to put the petrol that it requires and I know it needs to be taken for a service every once in a while, but beyond that, my curiosity ends. Why would anyone who is the end user of a product need to know the ins and outs of a product beyond the basic facts? Now, I know there are many readers out there that are interested in some of the details of the inner workings of kit and that's why we strive to give you some basic information in our reviews, but the long and the short of it is that what I look for in an audio product is how it fits in with my world on a practical level (features, functions and aesthetics) and whether or not it brings me closer to the music and behaves as a Machine For Joy (sonic attributes)...or in other words, does it look good, does it work with the kit I have, and does it sound good? The job of achieving that end result is down to the designers and electronics folk and not me, otherwise, I'd be in the profession of building Machines For Joy and not writing and talking about how they sound.

## JAVA HiFi

Martin Bell and his team are based in New Zealand and they make just six products across two ranges; the Single Shot range and the Double Shot range. In each of these ranges, you have a preamplifier, a power amplifier and an integrated amplifier...it's the latter we have here in the Double Shot variety.

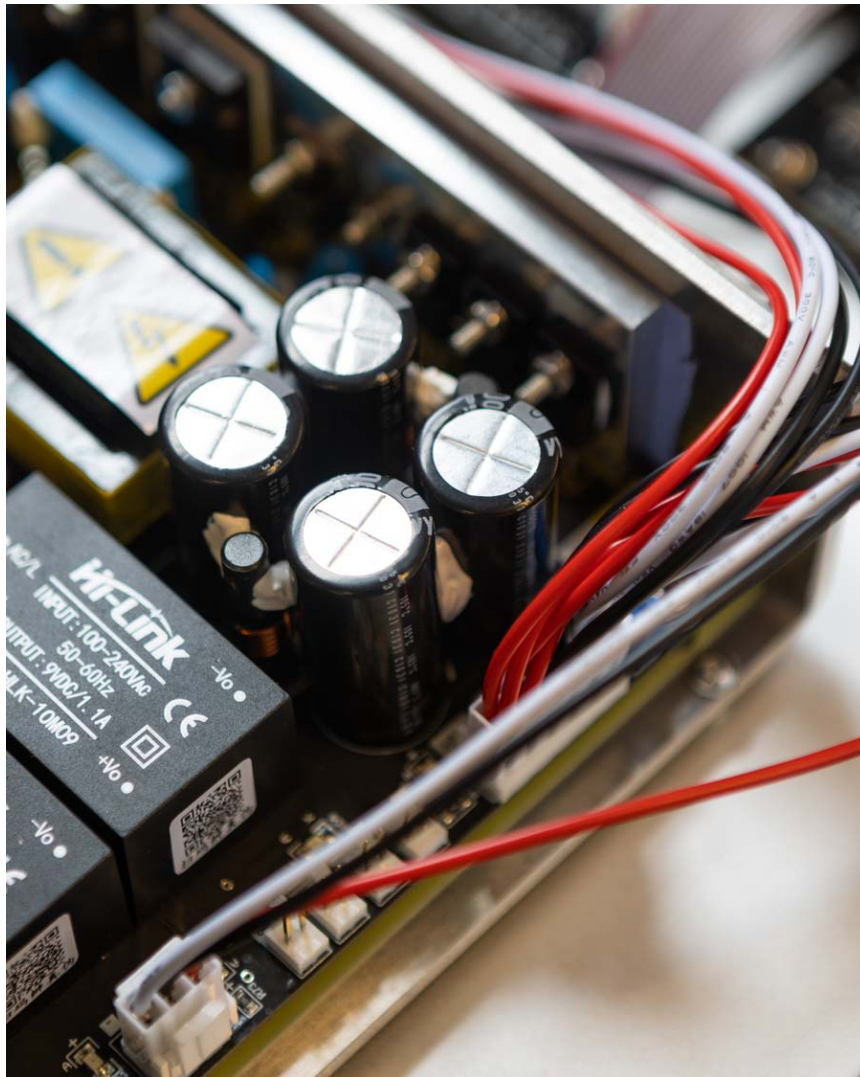
The Double Shot integrated that we have here differs from the Single Shot in that it uses a fully balanced dual mono topology, doubles its output to 400W into 8 Ohms, has XLR (4) line level inputs (it also has fixed and variable XLR outputs), has a high-resolution DAC with USB inputs and the PCB is "inverted" for "vibration and resonance control of audio circuit". Both the Single Shot and the Double Shot integrated amplifiers have GaN FET power amp stages and LDR preamplifier stages, Moving Magnet phonostages, and headphone amplifiers. In short, the JAVA HiFi Double Shot integrated is a fully-fledged proper integrated amplifier that is designed to have all the facilities and features that a modern integrated amplifier should have. Both come with a remote.



I really like that the Integrated amplifiers from JAVA address both the digital side and the analogue side of audio and I think this is a smart move on their part. A modern integrated without a DAC isn't really a fully integrated amp in this day and age, over and above it has a pre and a power amp in one box. I also think that the inclusion of a Moving Magnet phonostage is a sensible option, with the vast majority of people that are likely to buy this and listen to vinyl likely to be users of moving-magnet or high-output moving-coil cartridges. Those that want to get more esoteric with low output MCs can always add the Step Up of their choice.



## AESTHETIC AND FEATURES



The JAVA HiFi products look like no other and they do look beautiful. What's more is you can go onto the website for the company and order any combination of seven casework finishes and three front panel colours. Look at the photos of the amp and you will see that they are encased in a solid wood outer case that has real wood veneers and that the front panel is a 4mm anodised aluminium affair. I love all this stuff and I sometimes wonder why some companies seem to be stuck in the 1970s and insist on bringing out boring black or silver (occasionally "champagne") boxes that are as aesthetically pleasing as...a black or silver (occasionally "champagne") box. At the budget end of the market, I think this is acceptable and I actually do like the "HiFi that looks like HiFi" aesthetic, but in the real world times have moved on and people want HiFi gear that looks good as well as sounding great. You can choose the look of your JAVA HiFi amp with their online configurator, which is pretty cool to play with.

There was a time when every home had a music centre and then the fashion moved to people wanting everything in a rack – a bit of an altar to the Gods of Audio, I always thought – but apart from the minority of people that are really into their HiFi (I guess that is the majority of folk reading this) most people no longer want a tower of boxes sat in their living room and want a more streamlined and pleasing product that will fit in with their lifestyle and homestyle choices. The JAVA HiFi amp in high gloss ebony and black (case and panel) fulfils the brief with regards to looking good...and then some.

As we opened the very nicely presented box there were all the right noises being made for that Christmas morning feel with Linette saying "That's beautiful!". And it is beautiful to look at, with the aforementioned high gloss wooden casing having the wave-like pattern that JAVA use cut into the top panel in a contrasting veneer. The large satin knobs on either side of the front panel set the whole thing off and purely from an aesthetic perspective I have to say that this is the most beautiful bit of audio equipment I have ever had in for review...bar none! I'm reminded of an Eames lounge chair with regard to the look of this amplifier.

The remote is in brushed black aluminium and is nice enough, if not as beautiful as the rest of the package. Perhaps the remote could have a bit of the matching woodwork on it to fit with the amp's case, though I'm well aware this will add to the cost. At least it's not one of the ubiquitous Apple remotes, whatever it has electronically inside it. The remote has mute which works instantaneously, volume up and down, input selector, CAL (I don't know what this does) and a button with a symbol on it that suggests the brightness of the halos around the knobs can be brightened and dimmed...the latter did nothing but I'm told this will be used for further features down the line.



The front panel has two knobs which rotate infinitely, with the left giving you the source and the right being the volume. I prefer selector knobs to have a nice click to them, but that's my personal preference. As you turn the volume up or change the source a halo around the relevant knob lights up. This is tastefully done and adds to the look of the amplifier rather than detracts. However, when you first use the volume knob you realise that it's not responsive in that the relevant halo doesn't light up and the volume doesn't go up/down when you turn it – you need to keep turning it a little for it to work. This was annoying on first use, but you soon get used to it and as a feature, it is quite sensible in that it stops the volume being changed inadvertently.

Apart from the wave motif and a quarter inch headphone jack, that's it for the front panel.

The back panel has all the inputs and outputs I mentioned with the ETI Research speaker binding posts off to either side. Everything is clearly labelled and well set out, and (again) the attention to detail and aesthetics is clear.

Down either side of the amp are the heatsinks and rather than detracting from what they actually add to the overall design of this unit.

Look, it's a beautiful-looking bit of kit and in this finish, it would look gorgeous atop a piece of mid-century furniture that seems to be all the rage these days.

Size-wise the amplifier is 44 x 41.5 x 13 cm (WDH) and it weighs 11.6kg (25.6 lbs). So it's the same size as a normal bit of audio kit (give or take) but it looks so much more beautiful than your run-of-the-mill audio gear.

From the technical perspective, JAVA tells us that their Single Shot integrated amplifier was “the world's first integrated amplifier to use GaN FET (Gallium Nitride) transistors and the world's first audio product to include LDRs (light dependent resistors) and GaN FET transistors in the same circuit.” I'm certainly not going to profess to know what the benefits of a GaN FET device are over and above Silicon-based MOSFETs, but a quick Google search tells me that they are claimed to have better performance with regards to speed, efficiency and operating temperatures. It's beyond the scope of this review to get into their makeup, but Google is your friend if that's your bag. The other change from the norm in this integrated (or rather the preamplifier stage in the amp) is the use of a Light Dependent Resistor. Essentially this, as the name suggests, is a resistor whose conductivity decreases when light is shone on it. A variable light source will allow for variable resistor values and when used as a volume control does away with the need for complicated and potentially sonically detrimental pots.

Again, if this topic interests you then Google is your friend but here is what JAVA HiFi say about this part of the product “Our pre-amplifiers utilise Light Dependent Resistor (LDR) technology to isolate the signal path from other control electronics, providing the delicate audio signal with the shortest, cleanest possible path from input to output. With vanishingly low inter-modulation distortion (IMD) and total harmonic distortion (THD), the next-generation Gallium Nitride (GaN FET) amplifier modules at the heart of the new JAVA Hi-Fi stereo power amplifiers deliver a great leap forward in Class D sound.”

## SOUND QUALITY

The integrated was used in the upstairs system and QUALIO IQ speakers with an Auralic streamer as the digital front end used directly into the DAC and via our LAB 12 DAC, and then in the main system with Audiovector R6 speakers with a Technics 1200G turntable with a VERTERE MM cartridge straight into the amp. I would envision that folk spending 13K (USD) on an integrated amplifier will have the good sense to invest in quality speakers and front end components. I wanted to try the amp with reasonable speakers costing less than ten grand and then speakers costing just shy of 30K so that readers get a feel for where this product sits. The amp was left playing for a day by way of running in and I spent a long time sitting in front of it listening closely to its character.



## WITH LAB 12 DAC AND QUALIO SPEAKERS

With this set up I am expecting to be able to hear the character of the LAB 12 DAC and have the speakers driven properly. As I mentioned, I'd left the JAVA amp playing happily along to itself whilst it ran in. When I went up to the upstairs listening space there was Bill Withers, Al Green and Allen Toussaint tunes playing and so I just sat and enjoyed them for a while.

Sat listening properly (to Captain Moustache “Everything”) the first impression I got from this pairing was that the amp stopped and started very speedily and at all frequencies. The tops were crisp and sharp as they should be and the bass was tight and controlled. The amp was clearly in control of the speakers at the bottom end in control in a way that I liked a lot. I don't know if it's the GaN FET transistors at play or what, but there is a speed and immediacy to the sound that is very satisfying and reminiscent of the very best Class D amplification I've heard... which I personally think is a good thing, though I am aware there is still some phobia around this tech for some folk out there! Even at low volume levels, the detail and clarity of the music shone through and I'd suggest that in this system and with this streamer and DAC the integrated was perhaps better sounding overall than our Merrill

Thor amps and LAB12 preamplifier. In comparison, the Merrill/LAB 12 partnership (which I adore by the way) sounded a (very) little less quick and a little softer around the edges. Not night and day differences, of course, but definitely there.

Turning up the volume is an odd experience. The volume goes up but you don't really notice it going up. That doesn't make sense, because the volume IS going up but the effect (psychoacoustical) is that it isn't until it reaches a point where it is obvious. The clarity and speed of details in the music are still evident, it's just louder. I got to comfortable listening levels at around 11 O'Clock and the sound was as clean, detailed and distortion-free as it was at lower volumes...just louder.

One thing I did really enjoy listening to this amp with the LAB 12 DAC was the bass, on the Captain Moustache record I mentioned above, the bass depth, speed and control was very impressive. I also enjoyed the very low (very) noise floor of this amp and I think this is part of the reason it sounds so clean and detailed.

Overall I thought this combination was truly excellent with whatever I chose to listen to and with the [LAB 12 DAC](#) bringing its own flavour and connection to the party...which is what I bought it for. Long story short is the JAVA amp didn't mask the DAC at all.

## BLUETOOTH

I initially and for no apparent reason had some difficulty in connecting via Bluetooth. I then moved the amp downstairs into the big room and the bigger system and as if by magic I could connect to both my Android tablet and my Android phone.

I did need to turn the volume up on both the amp and the device to get it to volumes as loud as with the regular inputs, but once connected it all works flawlessly!

Do I think that Bluetooth has a place on an amp costing this much money? Well, if you had asked that question a year or so ago my answer would have been very different and I'd have railed against it as being something out of place on a high-end amplifier, but I've changed my opinion pretty drastically on this front and I feel that Bluetooth is a fantastic thing to have on any amplifier, however affordable or otherwise. Bluetooth gives access to a whole load of content on the likes of YouTube and Bandcamp that otherwise we'd only get to experience on our phones or tablets.

It's not the highest fidelity and it's not something I'd listen to all the time (this is the same for all Bluetooth streamed content) but it works and it doesn't sound terrible, by any means.

A useful feature.

## HEADPHONE AMP

Regular readers will know that I'm not much of a fan of headphones. I get them and I do use them on rare occasions but it's not my preferred way to enjoy my music. To this end, it's great (and absolutely correct) to have a headphone amplifier on an amplifier like this and it drove the Senny Peacock headphones I have loud enough and well enough. I liked that the socket was full sized!

Another useful feature to have included.





## USING THE ONBOARD DAC AND STACK AUDIO STREAMER AND AUDIOVECTOR LOUDSPEAKERS

Here I will be listening for the character of the onboard DAC and whether the amp can play nicely with more expensive loudspeakers.

Set up was a doddle; plug the streamer's USB output into the amp's USB input, switch the input on the remote to the relevant one and we have music.

The short answer to the above are that the Java HiFi amp is perfectly at home with this kind of loudspeaker and certainly doesn't feel at all outclassed. The onboard DAC presents music with deadly quiet backgrounds and great detail which was emphasised and highlighted with the decay on the piano on Alan Taylor's track Scotty. The slight reverb on Taylor's vocal can be heard very clearly and I actually thought this was a difficult performance to fault. I suppose what we are looking for in any bit of audio kit is for it to disappear and let us get on with listening and enjoying the music, and this is exactly what this integrated amplifier does. The slightly more complex following track on this album (The Stranger) has the amp and its DAC allowing us to hear the way the steel string guitar is played and to hear movement on the fretboard. There's nothing shouty or "look at me" in the way the JAVA amp delivers this music and I'm looking for words like natural to describe the sound. In more plain speak, the amp and DAC sound neutral and clean. Actually, this is a very nice sounding set up and one I'd be happy to sit in front of for a long time and just lie back and enjoy the tunes. I was particularly drawn to the way the amp and speaker combo let me hear the resonance in Taylor's voice and the way he moved towards and away from the microphone. I did sit and listen to this whole album and enjoyed it a great deal on this set up.

Switching to Westside Boogie, Dram, and AM's "AIGHT" off More Black Superheroes the JAVA let the stripped back production of this tune shine. Vocals were properly forward in the mix with different vocal parts appearing more forward or further back as I assume they were mixed. The kick-bass drum sounded properly hollow and back in the mix. Again, absolutely nothing to report other than that the JAVA let me enjoy the music without getting in the way and stamping too much of its already neutral presentation to the music. Interestingly, I actually preferred the sound of the Stack, Audiovector, and JAVA rig more than when using our own LAB 12 DAC and the QUALIO speakers, though this is a bit of an unfair comparison as I'm well aware the speakers play a good part in this overall sound. Whatever, the JAVA plays VERY nicely with the R6 speakers from Audiovector.

A track that seems to be doing the rounds at the moment at shows around the world is Vini Vici's Make Us Stronger. It's a lavishly produced Psy Trance affair (*my mate and acid techno artist Pierrot the Acid Clown loves a bit of Pside Trance...not*) with all the usual bass kicks and trippy little noises that the genre uses. If you like Juno Reactor then you will love this track. The (I assume) side-chained bass pump of the track can be heard properly and the energy and drive of the track is not lost when played on the JAVA HiFi amp. I wanted to play this track to see what the amp and onboard DAC did with the bass end of the tunes and I'm happy to report that that lower end isn't over-emphasised at all and the whole track remained well balanced and coherent. If anything the bass could be said to be a bit polite, but I actually think that it's not artificially pushed forward and emphasised by the JAVA amplifier.

Motorhead's Bomber off the No Sleep album (I was there when this was recorded at Leeds Queens Hall) sounded suitably and gloriously terribly recorded but still had the speed and energy of Phil Taylor's drums there at the back of the mix and magnificent mess of an ending. Unless you are a fan this record is going to be pretty unlistenable on a decent HiFi as it will highlight and lay bare the wonderfully haphazard production that makes the record what it is. Thankfully, the JAVA amp doesn't guild the lily one bit and it still sounds splendidly awful and brings back memories of that gig and the stench of patchouli mixed with leather and damp Afghan coats. Alright, I admit it, this last album was a bit of an indulgence on my part, but my takeaway is that the DAC and amp are both neutral in what they do to a file and whilst this record is hardly audiophile in its production it serves a purpose. Over The Top recorded at Newcastle is somewhat better recorded and this is clear to hear this on the JAVA amp.

Conversely (or perhaps not), when listening to Manu Katché with Mathias Eick, Trygve Seim, David Torn and Marcin Wasilewski on Playground the DAC and amp let the exquisite recording, playing and laidback production shine out.

So, the DAC works very well and is neutral sounding which marries well with the amp's similarly neutral presentation. My takeaways were speed and attack and a suitably (read correct) flat response with the amp/DAC neither adding a great deal nor taking a great deal away. I'd be happy to have this amp with these speakers on the end of it for sure!



## USING VINYL FRONT END AND ONBOARD PHONOSTAGE

Here I am listening to the phonostage to see if it allows the character of the cartridge to shine.

I'd expected the moving magnet only phonostage on this amplifier to be perfectly serviceable but pretty workaday. However, it's actually very good indeed and a stage I'd be perfectly happy using on a day to day basis with the **VERTERE SABRE** cartridge's bass bounce being retained on Robotiks' My Computer's Acting Strange record. Resolution of what I consider to be the cartridge's slightly warmer sound was retained and whatever records I listened to was an enjoyable experience with no nasties thrown into the mix.

Again, what I got from this amp using vinyl was that it seems to be transparent and speedy across the frequency spectrum with a flat response that lets you hear what is on the record rather than what the amplifier designer's personal preferences in that respect may or not be.

The phono pre is also deadly quiet which is a good thing that allows you to listen deeply into your records.



## QUIBBLES

The remote is OK rather than great, but then a lot better than some I've seen that come with the ubiquitous Apple remote which I tend to lose constantly. It functions as it should!

I had trouble connecting Bluetooth initially and then it all worked flawlessly and without further hitch. I have no idea what was going on but as soon as I brought the amp downstairs it just worked.

Some might want the DAC to deal with DSD and higher resolution files but I'm fine with what it offers and I have very few DSD files, anyway.

DAC is only USB input only.

It's a fingerprint magnet.

I'm not a huge fan of the infinitely rotating knobs and found that it took a bit of getting used to their feel.

No MC phono stage.

## CONCLUSION

Depending on your personal tastes, I would suggest that this amplifier is the best looking amplifier on the market at this time. It has the look and style of an Eames chair and is very nicely finished.

The character of the amp is that it is fast and neutral. It adds very little of itself to the music you are listening to without feeling cold and sterile.

"OUR AIM IS TO BRING MUSIC LOVERS CLOSER TO THE MUSIC THEY LOVE" is JAVA HiFi's slogan and I think they have achieved this with this amplifier, particularly with the DAC stage allied to the amplifier stage. The amp is likely to appeal to those people that are looking for a stylish amplifier with which to enjoy their music rather than those looking to obsess about whether they have all the right boxes or not.

The phono stage section of the amplifier is Moving Magnet only but I think JAVA HiFi have done a good job here and rather than going for adding an MC stage, they have concentrated on getting what they have included as good as possible.

So, I would say that I heartily recommend the JAVA HiFi Double Shot integrated amplifier for those looking for a no-nonsense and zero-faff solution with which to enjoy their tunes. I'm currently and rather obviously in the "many boxes" camp, but I'm increasingly seeing that integrated amps with digital and analogue inputs are actually a much more practical solution for those that don't want to get into the whole obsessiveness of audiophilia.

## AT A GLANCE



### **Build Quality and Features:**

Looks great and has a variety of finishes available that will suit any décor

Well specified but not over the top – there is no DSD provision (they are converted to PCM) and it will handle files only to 192Hz. I don't see this as being an issue!

Onboard DAC, Phonostage, and Bluetooth allied with plenty of inputs make it a versatile musical hub

Remote is good and functional

Knobs are a bit loose feeling but I used the remote most of the time, anyway

### **Sound Quality:**

Fast and nimble across the frequency range

Unembellished sonic signature that lets the sources shine

Compatible with a wide range of loudspeakers from relatively modest to more expensive

### **Value For Money:**

It's not cheap at \$13K but I would suggest that people looking at the JAVA HiFi integrated will be those people looking at buying once and not those looking at endless box swapping. In this sense, it makes a sensible but quality purchase that should sit proudly in your home for many years without you feeling the need to look elsewhere or to "upgrade"

### **We Loved:**

The looks of this unit are fab!

Honest and natural sound that appears to be true to the source

Well featured with all the inputs you could want

### **We Didn't Love So Much:**

The feel of the volume knob

You'll need a microfibre duster to hand as it does show up fingerprints and dust

**Elevator Pitch Review:** The JAVA HiFi Double Shot integrated is \$13K, fully formed integrated amplifier for the modern home with provision to add a streamer and a moving magnet equipped record player. It looks brilliantly modern but at the same time kind of timeless. Sonically it is neutral sounding and fast across the frequencies and adds very little of its own character to the listening experience. It will pair with pretty much any speaker at any price and will appeal to those looking for a stylish but capable HiFi solution for their home.



**Stuart Smith**

**SUPPLIED BY JAVA HiFi**

### **SPECIFICATIONS**

#### **Amplifier**

Output Power: 400W/8Ω (THD < 0.05%)

Dynamic Range: > 112dB SNR and Dynamic Range

Distortion: < 0.01% THD+N (8Ω, 1W, 20Hz to 20kHz);  
0.02 % THD+N (8Ω, 25W, 1kHz)

Output Noise: 105 dB (Unwtd, 400W/8Ω)

Frequency Response: 10Hz – 20kHz (+/- 0.5dB)

Input Impedance: 100kΩ

Common-Mode Rejection: 75dB (20Hz to 20kHz)

#### **DAC**

General:

DAC Chips: Dual flagship Burr-Brown PCM1794As in  
monaural mode

Sampling Rates: PCM up to 192kHz

Bit Rates: Up to 24-bit

Formats: Supports all formats. DSD is converted  
to PCM before playback

Measurements:

Signal-to-Noise Ratio (SNR): 130dB (A-weighted)

Residual Noise: 1.6uV (A-weighted)

Dynamic Range (DNR): 125dB

Total Harmonic Distortion + Noise (THD+N): -110dB  
or 0.0003%

Frequency Response: DC (0Hz) to 22kHz @ 48kHz  
sample rate

Frequency Response: DC (0Hz) to 44kHz @ 96kHz  
sample rate

Frequency Response: DC (0Hz) to 88kHz @ 192kHz  
sample rate

Output Voltage: 5Vrms (+16.2dBu)

Re-clocking:

Crystek CCHD-575 oscillator — ultra-low clock jitter  
of 82fSec

Output stage:

True balanced dual differential output stages

Uses OPA1612s

Low Noise Panasonic Resistors

Proprietary filtering topology