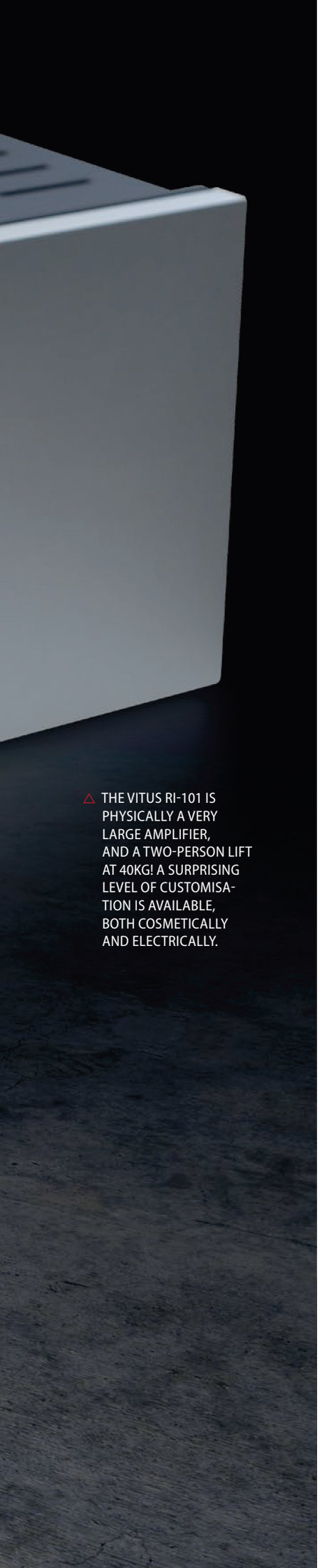
VITUS AUDIO
RI-101

AMPLIFIER

Reviewer Ernest Croft

Eight years is a long time in the high-end audio business. But that's how long Vitus Audio kept the RI-100 integrated in its amplifier line-up, so you'd have to assume that the company's founder and head designer Hans Ole Vitus was so happy with it that he didn't see any need for an update... until now, that is, since he's replaced it with this RI-101.

Not that you'd immediately realise it by looking at the new RI-101, however, because it appears he's using identical casing. Indeed, if you had X-ray vision and could look inside the chassis itself, it even appears as though he's using the same printed circuit boards. And actually, he is doing that… at least for the power amplifier section of the RI-101. Addressing the many similarities between the old and new model, Vitus said: "*The overall design of the RI-101 is the same as the original RI-100, so the main power supply is identical, the output stage ditto. But that's where the similarity stops. Everything around the input stage in the power amplifier section is new, and significantly*



△ THE VITUS RI-101 IS PHYSICALLY A VERY LARGE AMPLIFIER, AND A TWO-PERSON LIFT AT 40KG! A SURPRISING LEVEL OF CUSTOMISATION IS AVAILABLE, BOTH COSMETICALLY AND ELECTRICALLY.

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updated. Even though this does not show directly when comparing the boards, there are many differences."

THE EQUIPMENT

As with the RI-100, the RI-101 is available in multiple finishes. Our review model had a brushed aluminium front panel, with brushed aluminium pushbuttons and the front panel writing engraved into that aluminium, with no fill colour. This gave the amplifier an incredibly clean and stylish finish, if making it a bit hard to read what each control does. You can apparently optionally have the engraved lettering 'blacked-in' to make it easier to read. You can also order black buttons, rather than brushed aluminium ones. You can also order the RI-101 in black or gold… or, indeed in any gloss paint colour.

It's also possible to option an inbuilt DAC with the RI-101. There were two cut-outs on the rear panel of our review model labelled 'Optional DAC Module'. If you do option in this DAC, the left-most of these cut-outs will contain LAN and USB (B) sockets, and the rightmost cut-out will have AES and S/PDIF sockets. Optioning in this DAC will cost you an additional $5990. Initially — and because Input 5 of our review sample was marked 'Input 5/RIAA' — we thought that it was also possible to order the RI-101 with a built-in phono preamplifier, as was the case with the original RI-100. However, when we enquired of the Australian distributor, Absolute Hi End, we were told that it was not possible to fit a phono stage to the RI-101. This being the case, Vitus Audio might consider altering the rear panel artwork so as not to potentially confuse customers about this; it certainly fooled us.

As for the DAC module itself, according to Vitus it uses the most expensive IC available from US-based chip manufacturer ESS Technology. "*Many consider this the best-sounding DAC available, and equally as many find it a bit 'digital and cold', to which I do personally stand somewhere in the middle,*" says Hans Ole Vitus. "*It was chosen initially based on our wish to fully support DoP, which only very few DAC chips do for real. Obviously we created a design around the DAC which gave us the musicality we always strive for, seeking for all those emotions that all music has, but is so often forgotten.*"

When you select any input, it initially shows on the RI-101's orange-coloured front panel display as 'Input 1', 'Input 2' and so on. However, by using the front panel push-buttons you can change these to reflect the component type connected to any input (CD, Tuner etc) by selecting from a pre-programmed list, or by typing in your own personal identifier, such as 'Sondek' or 'Pro-Ject' (assuming you've connected a turntable by using an external phono stage, such as Vitus Audio's own RP-102).

Your ability to customise each input doesn't stop there. You can also adjust the gain of each input by up to ±12dB to ensure that the volume level of your speakers doesn't change when you switch from, say, your tuner to your CD player. Also, if you are not using all five inputs, you can instruct the RI-101 to not show any unused inputs on the front panel display. This is particularly handy because you can't select inputs directly, either from the front panel or via the remote control. If you're using Input 1 and want to select Input 4, you first have to select Input 2, then Input 3 (and *vice versa*).

Yet another option is that you can select a particular volume level for any input, and then 'fix' it, so that this volume level will be used every time you switch to that input. If you do this, however, the volume control will not be operational for this input: the volume level is truly 'fixed'. (Though you can 'unfix' it any time you like, of course.) Although we're sure this feature is primarily to enable the RI-101 to be used in a multi-channel system (likely powering the front main speakers) we can think of other useful implementations. For example, if you 'fixed' all five input levels, you could ensure that a certain volume playback level was never exceeded in your listening room.

Since we're mentioning volume levels, you can also preset a 'default' switch-on volume and a 'resume' switch-on volume. The idea of the 'resume' volume is that if you set it, when you turn on the amplifier from Stand-by, it will not only default to the last input you used, but also to the volume level you programmed. If you don't set the 'resume' switch-on volume, the amplifier will always default to the last input, but the volume will automatically default to –99dB… so no sound at all. The difference between the 'default' and 'resume' settings is that the 'resume' setting will disappear after a 'no power' event (such as the amplifier being unplugged, or a mains power outage) while the 'default' volume setting, on the other hand, will always be retained.

△ POWER SUPPLY STORAGE/ SMOOTHING CAPACITANCE IS 216,000µF PER CHANNEL, UP FROM THE 120,000µF PER CHANNEL IN THE OLD RI-100.

Volume level can be manually adjusted by using the 'Volume Up' button (the topmost of the three buttons to the right of the front panel display), or the 'Volume Down' button (the bottom-most of the three buttons). The button in the middle is 'Mute'.

The three buttons on the other side of the display are (top to bottom): Input/Up, Menu/Select and Standby/Down, and are used for Input Selection and Power Switching, plus selecting and setting the previously-mentioned input options (about which more later).

Still on the subject of volume level control, another internal change on the RI-101 is the volume control circuitry itself, which now uses the same system that's employed in Vitus Audio's SL-103 and MP-L201 (a relay-controlled switched resistor network) but a slightly different implementation of it. Because Vitus encapsulates its power transformers, we were unable to determine if the one in the RI-101 was the same as that in the RI-100, but Vitus Audio says it has "*the same rating*" (which would put it at 1kVA, according to the Vitus website) but that the company has been able to "*improve the efficiency of the transformer*"... but by what means it's been able to do this is unknown. Power supply storage/smoothing capacitance is 216,000µF per channel, up from the 120,000µF per channel in the old RI-100.

One aspect of the circuit design that has not changed is the topology of the output stage, which is bridged (aka 'balanced'), which in this implementation means that Vitus is using two separate amplifiers per channel, with each amplifier powering one leg of a differential signal. This circuit topology means twice as much voltage swing and twice as much power (theoretically four times the power), plus lower noise. However, it also means twice the distortion and twice the output impedance (and therefore half the damping factor).

From a practical viewpoint as an end-user, the bridged design means that the 'negative' speaker terminal is actually carrying voltage, so it is not at ground potential and should never be connected to any earth or any 'negative' on any other electronic component (such as a subwoofer). To its credit, Vitus puts very large warnings on the rear panel of the RI-101 alongside both sets of speaker terminals. However the terminals themselves still use red and black-coloured speaker posts, whereas the convention these days is to use red and blue colours (with the blue colour serving as a visual warning to anyone who can't read English that the terminal is not at earth potential). It is also becoming common to put 'lightning bolt' symbols alongside both speaker terminals of an amplifier with bridged outputs as yet another visual warning.

Although the Vitus RI-101 is physically a very large amplifier, measuring 435×195×435mm (WHD), this doesn't really prepare you for its weight, which is 40kg, making it always a two-person lift. A complicating factor when lifting the amplifier is that the feet underneath are very short, and leave only 13mm of space underneath the chassis at the sides so you can't easily get your fingers right underneath the amplifier to lift it… only your fingertips. Fitting larger feet would make a huge difference. The amplifier's warranty period seems rather short for a product of the RI-101's obvious quality, and the warranty conditions a tad unsettling.

▷ THE REAR PANEL SHOWS THE AVAILABLE SLOTS FOR THE DAC INTERFACE, THE VARIED COLOUR LETTERING AND WARNINGS ABOUT THE BALANCED NATURE OF THE NEGATIVE SPEAKER TERMINALS.

IN USE AND LISTENING SESSIONS

Take a look at our photograph below of the rear panel of the Vitus Audio RI-101 and you'll see that Vitus has been very clever with the lettering printed on it, because all the lettering for the one channel is printed in red paint, and all the lettering for the other channel in white paint. There are no 'left' or 'right' channel indications, but we'd opt for the right channel being the one with the red markings. We did find that under less-than-optimum lighting conditions, it was almost impossible to read the red printing, whereas the white remained visible. (In the event of a future change of heart about the colour scheme of the lettering, Vitus might also take the opportunity to remove that 'RIAA' reference and fix the incorrect spelling of 'Improper' on the ground terminal warning.)

> "...the RI-101 was more than up to reproducing Beethoven's Fifth Symphony at near-concert levels...

All the rear panel terminals are recessed a little, so there's excellent plug protection, but the speaker terminals don't have through-holes, and the terminal heads don't wind off fully. This means bare wires are a little difficult to attach and that you cannot use eyelet-style (ring-style) connections at all. Your speaker cables really need to be terminated in either spade connectors or banana plugs.

We were really impressed by the remote control Vitus Audio provides as standard with the RI-101. It's a sleek, beautifully designed and beautifully-made remote control that looks exactly like an Apple TV remote. It not only looks like an Apple TV remote… it *is* an authentic Apple TV remote, made by Apple itself. Although the RI-101 manual says that it's necessary to 'pair' this remote with the RI-101 before it can be used, ours was usable 'out of the box' so Vitus is obviously doing the pairing at the factory.

Our first task was to set the input labels to match our review set-up, and to set the volume control defaults. This wasn't as easy as we thought it might be, because we found it difficult to navigate through the menus using the front panel buttons (and the remote can't be used for menu navigation). For example, doing something as simple as setting the default 'start' volume for a particular input is a process that requires you to press the 'Down', 'Up' and 'Select' buttons 25 times, in an exact sequence. Then to change the gain on that input requires a further 21 equally precise pushes of various buttons. If you then want to change the name to, say, 'Tuner', you'll be pressing buttons until the cows come home. Vitus has included more than half-a-dozen step-by-step examples of exactly what to do and how to do it in its Owners' Manual. We'd suggest you examine these examples carefully, and plan a leisurely afternoon making adjustments.

One of designer Hans Ole Vitus's stated intentions in re-vamping the RI-100 design to the RI-101 was, in his words: "*To bring the sound a bit closer to the SIA-025 'sound' if you like, and then even of a few technical aspects — like the resolution of the volume control — a bit further!*"

We were left in no doubt that he's certainly advanced the sound quality of the RI-101 a lot

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further in the direction of the SIA-025. Let's look at the bass register just for starters. Whereas in our previous review of the RI-100 we found that the bass register was 'generous' and 'bloomy', and that it brought 'excitement' and 'body' to leaner recordings, we also found that bass-heavy productions could become a tad overcooked.

The new RI-101 retains the excitement and body of the bass delivery, but its performance is now independent of the quality of the recording, so that bass-heavy recordings are still bass-heavy, but never 'overcooked', and likewise recordings that are lean in the bass are kept as lean-sounding as the artist and producer originally intended. The RI-101 does not try to 'fix things in post', as they say.

The low-frequency dynamics and the dextrousness of the transient attack of the Vitus RI-101 are impressive, and its pace, rhythm and timing are absolutely spot-on. Listening to *Black Cockatoos*, which is the opener on Big Merino's debut album 'Suburban Wildlife', you can hear the way PRAT is maintained perfectly, yet the music is still delivered with a lazy, laid-back feel. And when the more rhythmically tight track *How Can You Be So Sure* follows, you can hear the 'feel' of the track tighten.

It's crucial that an amp can deliver the entire vocal range from bass to sopranino with total precision, and we found that the Vitus RI-101 did this effortlessly. We stuck with Suburban Wildlife (a high rotation album here at Esoterica HQ) and the sound of Stuart Davis' vocals on *Turn This Boat Around* was amazingly accurate… it was pretty much like we were listening to him live at the Petersham Bowlo: you can certainly hear how well he honed his vocal skills with Tony Backhouse and The Heavenly Light Quartet.

We listened particularly to the incredible transparency of the RI-101's sonic delivery in the opening bars of *Turn This Boat Around* as well as the superb stereo imaging (and the absolute separation between stereo channels) clearly audible on *Love Letter From A Fool*, a track that also features the delicious sound of guest bassist Jonathan Zwartz, plus some great lead guitar from Alex Craig (who also sings backing vocals).

Between them, Davis and Craig wrote all the tunes on this album, but we couldn't work out whether *Love Letter* was an homage to Leiber and Stoller's famous song *Love Potion No 9*, or just an unwitting imitation. Just listen to Davis singing his lyric '*love hit me from behind*' and compare it to The Searchers' John McNally singing '*love potion number 9*.' Potential kookaburra controversies notwithstanding, this is a great album, made even better by the pedal steel contributions from Michel Rose and brass from James Greening… not to mention the keyboard work of John Gauci.

If your tastes lean more to New Age, you'll be astounded by the way the Vitus RI-101 delivers the incredibly lush soundscapes that are captured on 'Flow', a collaboration between Will Ackerman (guitar and production), Fiona Joy (piano and vocals), Lawrence Blatt (guitars and uke) and Jeff Oster (trumpet, flugelhorn). The acoustic guitars are close-miked, so you can hear fingertips moving on metal strings, as well as the sounds of fretting. And being New Age, there's lots happening up in the high frequencies, including various bird and environmental noises. Joy's piano is recorded very close, with a revealing intimacy. But 'Flow' is not all New Age. *Waiting for Sunshine* is quite bluesy and *Waters Gather* Nyman-like, while *Tenth Life* seems to have Ennio Morricone written all over it. We loved the music and were enraptured by the sonics, particularly as delivered by the RI-101. We could hear all the separate strands of the music as the notes interleaved, and the backgrounds were totally silent, but without that 'blackness' that can deaden the acoustic. This is a noise-less amplifier.

Also an extremely powerful amplifier. There's no way you'll be wanting for more power than it's able to deliver, no matter how demanding your loudspeakers. Orchestral music is perhaps the most demanding on an amplifier's power reserves, but the Vitus Audio RI-101 was more than up to reproducing Beethoven's Fifth Symphony at near-concert levels, with no hint of overload. Even Mahler's Eighth Symphony, with its huge chorus and orchestra, did not faze the RI-101 one iota, with the amplifier delivering an absolutely matchless, intricately-layered sound-field, irrespective of how loudly — or, indeed, how quietly — we decided to play it. Even the more modern mayhem of Red Sea's *Battlescar* (track and album both) could not unsettle the composure… though Pete Kelly's machine-gun drumming certainly unsettled the composure of our loudspeakers' bass drivers! Likewise Kelly's percussion work on *Rapture*, in combination with the driving bass guitar of Attila Murare, all overlaid by the almost ethereal vocal of Erica Bowron piercing through as only she can, was all delivered with a realism that was as jaw-dropping as it was ear-shattering.

CONCLUSION

With all its products designed and built entirely in Denmark, Vitus Audio unashamedly specialises in the über high-end of the audio world, a strategy clearly evidenced by the fact that the RI-101, at $22,000 — or $27,990 if you option in the DAC — is the company's entry-level integrated amplifier. It's also a high-performance integrated amplifier that sounds splendid. Æ

SPECIFICATIONS

VITUS AUDIO RI-101

POWER OUTPUT: 300W per channel into 8Ω
FREQUENCY RANGE: d.c. to 500kHz
S/N RATIO: >100dB
THD+N: Better than 0.01%
INPUT SENSITIVITY: 2.6VRMS unbalanced, 5.2VRMS balanced
INPUT IMPEDANCE: 22kΩ
SLEW RATE: >35V/µs
POWER CONSUMPTION: <3W (Standby)
DIMENSIONS (WHD): 435 × 195 × 435mm
WEIGHT: 40kg
PRICE: $22,000 (Black or Silver finish)
CONTACT: Absolute Hi End 04 8877 7999 or visit www.absolutehiend.com