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JBL's Summit Ama serves up serious scale



A KYRON AUDIO ROOM BUILT FOR BOND

ISSUE 546

A\$11.95

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Soul Note A-2 Ver2

Integrated Amplifier

- Glorious sonics
- Operational flexibility
- Superb build quality
- Subwoofer output
- Headphone output
- Standby circuitry
- RRP **\$12,250**

This new version of Soul Note's A-2 amplifier, the A-2 Ver2, is more than just a naming update, as major changes have been made both inside and out. Not does it introduce a completely different front panel design, but the internal circuitry has also been completely redesigned. Redesigned so significantly, in fact, that it would likely have been more appropriate to allocate it a completely different model number, rather than just tacking on 'Ver2' as Soul Note has done. What is completely unchanged, however, is the superb quality of the execution of the design, from the superior quality of the finish of the enclosure, to the superior quality of the components used internally and the overall standard of construction. This is no doubt in large part because the Soul Note A-2 Ver2 is not just designed in Japan, but also built entirely in Japan, in a city not too far north of Mount Fuji.

EQUIPMENT

Despite being a full-featured integrated amplifier, there are only three controls on the front panel of the Soul Note A-2 Ver2. There's a single rectangular power button at the lower left, a rotary input source selector

(curiously non-identified only as a 'selector' rather than as an 'input selector') on the left side and, on the right, a rotary volume control.

Both the input source selector and the volume control are connected to relays, rather than directly into the circuit path, so as you rotate either control (both of which have a click-stop action, rather than a smooth rotary one) you will hear these relays clicking from inside the amplifier.

In the case of the volume control, this approach is essential because volume adjustment is accomplished via a relay-based attenuator system that switches high-precision resistors in a balanced configuration. According to Soul Note's chief designer, Hideki Kato, this approach ensures that "Transparency is dramatically enhanced, allowing the soundstage to emerge with three-dimensional clarity. It also significantly improves quality at low volume levels due to the lack of gang error." (Editor's Note: Most amplifiers use rotary potentiometers to adjust volume level. The problem with these devices is that almost all potentiometers do not adjust the volume of the left and right channels equally, so that one channel will be louder than the other depending on the specific setting of

the control. This error most often occurs at low volume levels. Electronics engineers refer to this unwanted difference between channels as gang error.)

The input source selector has six red LEDs arrayed in a horizontal row above it that illuminate to identify the selected input. The knob does not have 'stop' points at either end of its rotation, so if you start at Input 1 and rotate the knob right until you get to Input 6, you'll find that if you then make a further clockwise movement, you'll be returned to Input 1 at the start of the sequence. This makes input selection faster than it would otherwise be, so is evidence of good design.

The other feature on the front panel is of course the display, whose default setting is rather bright. (Although you can't adjust the brightness level, you can switch the display off, via the Ver2's remote control.) This display's only function is to give a visual indication of output volume level, which it does via a two-digit LED readout buried beneath the rectangular block of red Perspex. The display ostensibly reads from 00 to 35, but in fact when 00 is displayed there is no output at the speaker terminals at all, so it's effectively a 'Mute' position rather than a 'lowest gain' position.

REAR PANEL

A glance at the rear panel of the Soul Note A-2 Ver2 will quickly show that inputs 1, 2 and 3 are all balanced types, using standard XLR connectors, whilst inputs 4, 5 and 6 are all unbalanced types, using gold-plated RCA terminals. All six inputs are line-level, so if you use a turntable, you are going to have to factor in the cost of an external phono stage. I see this as a 'plus' point for the A-2 Ver2, because an external phono stage is always going to ensure superior sound quality than a built-in alternative (along with enhanced flexibility) plus there's the fact that if you're not planning to use a turntable, you're not paying for an input you won't use.

Below the input terminals are the speaker terminals, and they're absolutely fabulous, with fully shrouded connections so there is no possibility that stray wires might cause a short-circuit, or that a plug fitting could twist around and short-circuit against another. Another plus point is that these terminals accommodate spade connectors, bare wire and/or banana plugs. There's also the fact that no matter what type of connector you use, the clamping action provided by the each terminal is excellent, which will guarantee a superior electrical connection.

However there's more on the rear panel than just input and output terminals because, like the A-2 that preceded it, the A-2 Ver2 is not just a 'conventional' two-channel stereo amplifier: Its left and right channels can be configured in multiple ways, so that although it can certainly operate as a standard stereo integrated amplifier, it can also be switched through the following configurations:

- stereo integrated amplifier
- bi-amp mono integrated amplifier
- balanced transformerless, mono, integrated amplifier
- stereo power amplifier
- bi-amp mono power amplifier
- balanced transformerless mono power amplifier

In the two balanced transformerless (BTL) modes, the amplifier is reduced to single-channel operation (as it is in the bi-amp modes) but in this mode, that single channel has a rated power output of 160-watts. Note that although you gain power in this mode, using it also means that you should not connect loudspeakers whose nominal impedance is lower than 8 ohms, so it's a classic case of swings and roundabouts.

Switching between modes is accomplished using small slider switches that all sit proud of the rear surface and are very easy to move, so it would be possible to accidentally move one of them to an incorrect position if one were, say, dusting behind the unit. I feel it would have been better for the switches to have been recessed slightly inside the rear panel so they could not be moved accidentally, or maybe a type of switch that needed a tool in order to be moved.

The A-2 Ver2's *User Manual* has a diagram (Page 8) that is supposed to show the various switch configurations that should be selected for each mode, and to which terminals your loudspeakers should be connected to for that particular mode (connections for BTL mode are different from those for Stereo mode). Unfortunately, at the time of writing (May 2026) that diagram is completely incorrect, as was the one available as a download from the Soul Note website. Soul Note has been advised of the issue, and it should have been corrected by the time you read this review. Just in case it hasn't, if the last column has a 'tick' in every box, it's the wrong diagram, in which case I'd recommend using the diagram from the older A-2 User Manual.

One feature you will not find on the rear panel is an output to which you could connect a subwoofer. This is something of an oversight, because the circuitry of the VER2 is such that there's a possibility that connecting a subwoofer to the speaker terminals could result in damage that would not be covered under warranty (the warning on Page 7 clearly states "Do not connect any devices other than loudspeakers").

Although it's likely you will notice this yourself when you unpack the Ver2, I need to mention that rather than fitting the amplifier with the usual four feet, Soul Note has instead fitted only three feet, presumably because if the surface on which you place the amplifier is not flat, the

amplifier will not wobble, because three points describe a plane. However, it also means that if you push down on the front top left or front top right of the amplifier (which you might do if you're leaning over the amplifier to check a rear panel connection), the amplifier will immediately rock downwards on that side, which could come as a surprise if you're not ready for it.

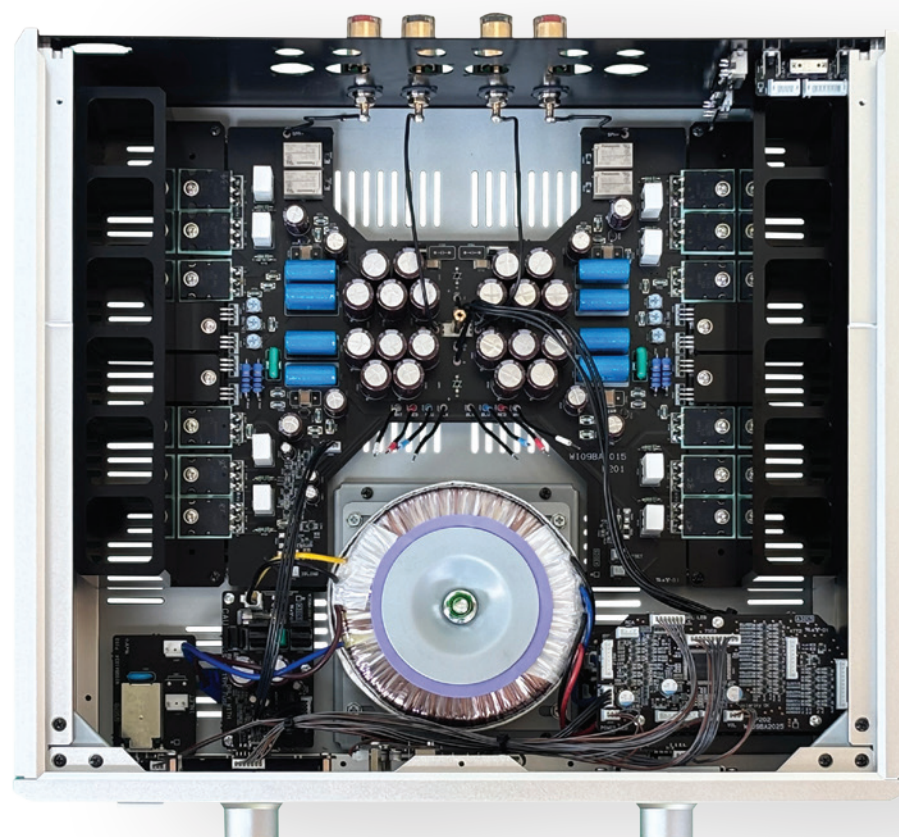
CIRCUIT CHANGES

According to Hideki Kato, the new A-2 Ver2's circuit does not use feedback. The website says "The amplifier circuit employs a completely non-NFB design without feedback loop of any kind. Its structure is deliberately simple — essentially a power amplifier equipped only with a selector and volume control. This approach is essential to prevent any degradation of the audio signal and to preserve its absolute freshness and purity." This is an extremely unusual approach to amplifier design, because almost all audio amplifiers use negative feedback (NFB) of some kind. Negative feedback involves feeding a portion of the output signal back to the input, out of phase, because this has the effect of reducing distortion, linearising the frequency response, and reducing the output impedance for the purpose of maintaining voltage constant across the audio band irrespective of variations in a connected loudspeaker's impedance. That said, many audiophiles are of the opinion that amplifiers that do not use negative feedback sound better than those that do!

Although amplifiers that do not use negative feedback more often than not use pure Class A output circuitry, the Soul Note VER2 is a fairly conventional Class AB amplifier, though one that does use expensive, hand-matched, high-speed, high-power TO-3P transistors in a parallel push-pull Darlington configuration. Soul Note says that the specific transistors used in the Ver2 are the same as those used in flagship A-3, and further that those



On Test Soul Note A-2 Ver2 Integrated Amplifier



transistors are precisely paired [matched] based on their hFE characteristics. This, says Kato, “effectively eliminates the tonal smearing that can occur in conventional parallel push-pull designs.”

Other circuit changes in this Ver2 model, compared to the original A-2, include a newly developed voltage amplification stage that has been significantly simplified over the original, plus refinements to the bias circuitry. Perhaps the most significant major component change, however, is that Soul Note is using a new toroidal power transformer whose secondary windings produce lower voltages than the transformer used in the original A-2. Says Soul Note: “The output voltage has been intentionally lowered. By doing so, priority is given not to maximum output at 8 ohms, but to the ability to deliver instantaneous current under low-impedance loads. This enhances perceived power and grip, resulting in far more powerfulness and grip.”

The reduced voltage translates to reduced output power, so that whereas the A-2 was specified as being able to deliver 100-watts into 8 ohms and 200-watts into 4 ohms in its conventional two-channel mode (and 400 watts into 8 ohms in its monophonic modes), the new A-2 Ver2 is specified as being able to deliver 80-watts into 8 ohms and 160-watts into 4 ohms (and 320 watts into 8 ohms in

its monophonic modes). Although these differences seem to be large if you just look at these numbers, they don't tell the real story when it comes to ‘perceived loudness’ which is how the human ear interprets volume.

Perceived loudness is better described logarithmically, using decibels (dB), and if we describe the output this way, 100-watts into 8 ohms is 20dBw, and 80-watts into 8-ohms is 19dBw... a difference of just 1dB. Looking at the 4 ohm figures, 200-watts into 4 ohms is 23dBw and 160-watts into 4 ohms is 22dBw... so again the difference is just 1dB. The trick here is that a difference of just 1dB is barely perceptible to the human ear. In fact, in order to make a perceptible difference in volume, you'd need a difference of 3dB, and in order to do this, you'd need to double amplifier power. So a 100-watt amplifier has a 20dBw rating, and a 200-watt amplifier has a 23dBw rating. All of which is to say that the difference in output power between the VER2 model and the original is not significant.

Before moving on in this review, I should note that in my review of the A-2, I suggested that readers should read Hideki Kato's design philosophy, which was published on Soul Note's website. When I tried to refresh my memory by re-reading it to prepare for this review, a 404 error informed me that it was “not found on this

server” so unless you're better at internet sleuthing than I am, your next best bet would be to watch the 40-minute, two-part interview with Kato that is on YouTube (A conversation with Hideki Kato, Chief Engineer at Soul Note). It is, unfortunately, auto-dubbed, but you'll get the idea.

IN USE AND LISTENING SESSIONS

As with the earlier version, this Ver2 model includes some operational niceties that don't always appear when an amplifier uses relays for source switching and volume control. One example is the ability to ‘remember’ the last-used input source and the last-used volume setting, which it does even if you have turned off the power to the unit completely at the main. I was also pleased that Soul Note continues to include a ‘fail-safe’ into the volume memory circuit so that if you've been listening at a level which required the volume display to show a value higher than 25, the A-2 will automatically reset itself to ‘25’ whenever it is powered-up.

Embarking on my listening sessions, I immediately established that despite the ‘on paper’ output power being lower than that of the earlier model, I could easily determine that the loudness levels were still far more than will be required in ordinary domestic use, even if you, like me, use inefficient loudspeakers in a larger-than-usual room.

It also seemed to me to be apparent that this newer version of the Soul Note A-2 was somewhat more ‘sweeter-sounding’ than the earlier version. Regrettably, not having access to the earlier version, I was unable to do a direct A-B comparison of the two. However, I was able to listen to the A-2 Ver2 using exactly the same tracks, at exactly the same listening level, using the same speakers and in the same room, and I gained the impression that the Ver2's sound quality was richer, sweeter and more ‘full’-sounding. I could not hear that any trade-offs were made to achieve this result either, as the tonality was balanced across the spectrum, the bass was smooth and extended, and the treble clean and extended.

When evaluating the bass, I settled on Tame Impala's ‘Let it Happen’, the lead single from the band's third studio album, *Currents*, because this was one of the stand-out traits of the earlier Soul Note iteration. I paid particular attention to the airiness of the sound of the echoed vocals after the deliberately deadened

instrumentals, and to the close-out of the track. The ‘airier than usual’ sound was still there, and the solidity of the bass line (guitar with sub-bass beneath) was still delivered perfectly.

Further reprising my previous audition session by playing the Passacaglia and Fugue in C minor, from E. Power Biggs Plays Bach In The Thomaskirche, the VER2, like the original, sustained the sound of the lowest organ pedal notes at any volume that I cared to use. The tonality of the deep bass was exceptional and the sounds of the higher notes on the manual were so accurately delivered that I was able to hear the true sound of each stop, without the ‘shrillness’ that can be introduced by lesser amplification. I judged the musicality of the original A-2 to be ‘first-rate’ and the same is also true of this Ver2.

The improved ‘sweetness’ of the sound is an over-arching effect, rather than one that has a direct impact on individual voices or instruments, as I discovered when playing the late Cyndi Lauper's tribute to the equally late Chris Green, a good friend of mine who wrote for this magazine. Listening to ‘I'm Outta Here’ (both to the version that finally appeared on her album *Nowadays*, and to a version I recorded live) I was impressed by how accurately the Soul Note A-2 Ver2 reproduced not only her distinctive voice, but also her equally distinctive acoustic guitar sound. Essentially, the sound was absolutely true-to-life, and I cannot ask anything more of an amplifier than this!

CONCLUSION

In my review of the earlier version of this amplifier, the Soul Note A-2, I wrote that it was, and I quote, “very powerful, very quiet and — most important of all — sounds absolutely gorgeous”. Although this new A-2 Ver2 is not quite as powerful, it still has more power available on tap than you will ever need, is equally quiet and, I think, sounds even better. **Greg Borrowman**

CONTACT

Brand: Soul Note
Model: A-2 Ver2
Warranty: Five Years
RRP: \$12,250
Distributor: Absolute Hi End
Address: PO Box 370, Ormond, VIC 3204
T: 0488 777 999
E: info@absolutehiend.com
W: www.absolutehiend.com

Lab Report

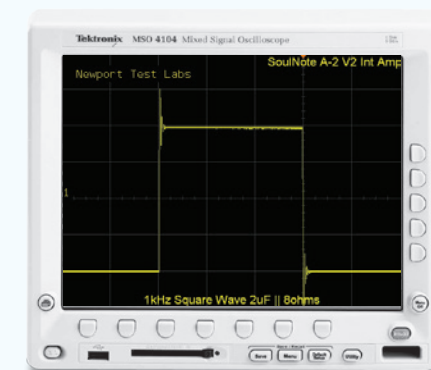
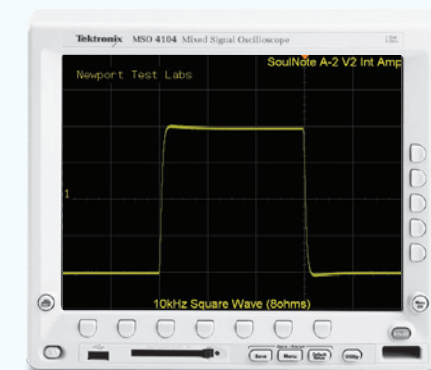
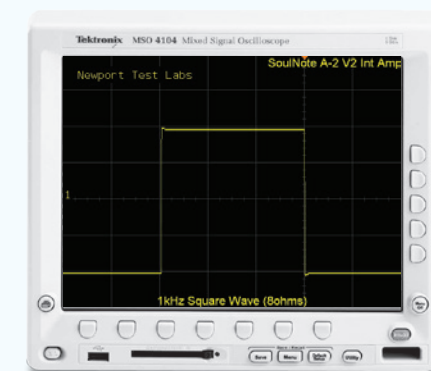
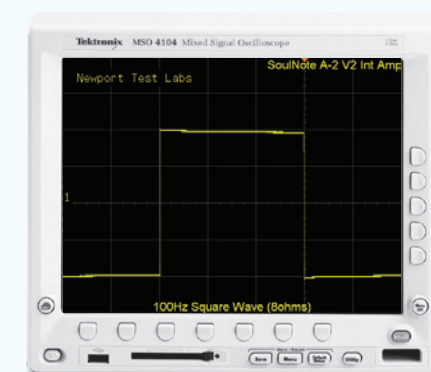
Laboratory Test Report

Readers interested in a full technical appraisal of the performance of the Soul Note A-2 Ver2 Integrated Amplifier should continue on and read the LABORATORY TEST REPORT published on the following pages. Readers should note that the results mentioned in the report, tabulated in performance charts and/or displayed using graphs and/or photographs should be construed as applying only to the specific sample tested.

Newport Test Labs measured power output only for the Soul Note A-2 Ver2's conventional stereo mode, the results of which are shown in the tabulated ‘Lab Test Results’ table that accompanies this review. You can see that at a frequency of 1kHz, with both channels being driven into standard 8Ω laboratory test resistors, the Soul Note A-2 Ver2 delivered 84-watts (19.3dBW) per channel, slightly higher than specification. However at 20Hz and 20kHz, output power was exactly as per specification: 80-watts per channel (19.0dBW). Tested into just a single channel, the Soul Note A-2 Ver2 delivered 99-watts (19.9dBW) per channel into 8-ohms at a 1kHz test frequency, but only 84-watts (19.3dBW) at 20Hz and 20kHz.

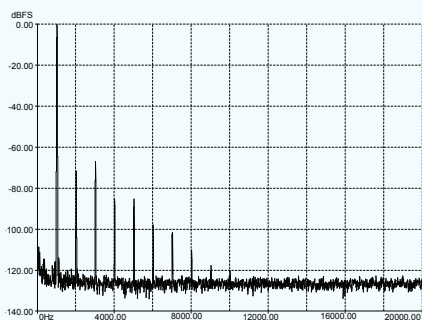
Newport Test Labs measured the frequency response of the Soul Note A-2 into both a standard non-inductive test load (shown as the black trace on Graph 7) and into a load that simulates the one that would be presented by a typical two-way bookshelf loudspeaker (red trace). You can see that the black trace is just 0.18dB down at 5Hz and 0.07dB down at 40kHz, with an even-better characteristic over audio band, being 0.16dB down at 20Hz and exactly 0dB at 20kHz, for a normalised response of 20Hz to 20kHz ± 0.08 dB.

The red trace isn't as linear, as I would expect of a design that does not use negative feedback, but it's

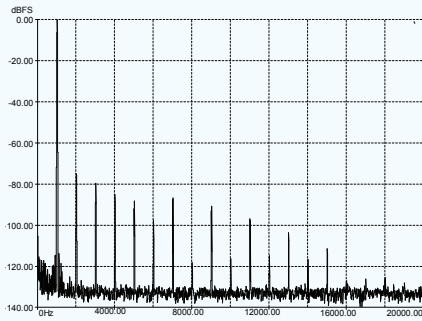


still impressively flat, with the normalised frequency response being 20Hz to 20kHz ± 0.17 dB. Looking at this graph, it would be as well to remember that the vertical scaling has been greatly magnified to enable higher level resolution than most ordinary graphs, such that the top represents just a +1dB rise in level and the

Lab Report Soul Note A-2 Ver2 Integrated Amplifier



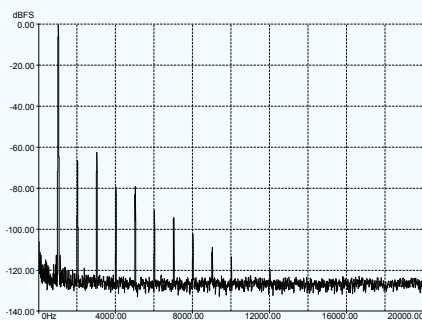
Graph 1. THD at 1kHz at 1-watt into 8-ohm non-inductive load



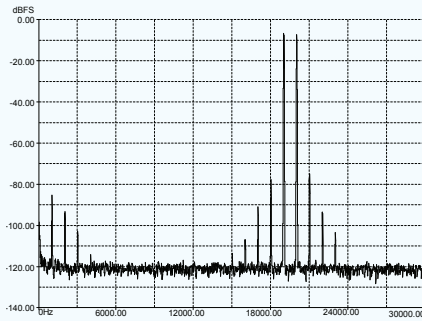
Graph 4. THD at 1kHz at 20-watts into a 4-ohm non-inductive load

bottom a -1dB drop. The overall wideband frequency response measured by *Newport Test Labs* extended from lower than 1Hz to 141kHz -1dB, and from lower than 1Hz to 235kHz -3dB. These figures not only exceed Soul Note's specifications, but are far more extended in the high frequencies than *Newport Test Labs* measured for the original Soul Note A-2.

Graph 1 shows total harmonic distortion at 1kHz when the Soul Note A-2 Ver2 was delivering one watt into a standard non-



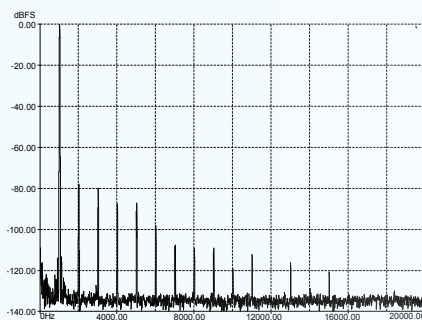
Graph 2. THD at 1kHz at 1-watt into a 4-ohm non-inductive load



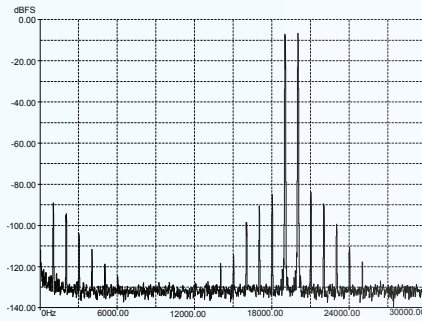
Graph 5. IMD (19/20kHz 1:1) at 1-watt into an 8-ohm non-inductive load

inductive 8Ω load and we can see harmonic distortion components at 2kHz (-72dB/0.025%), 3kHz (-68dB/0.039%), 4kHz and 5kHz (both -83dB/0.007%), and at 6kHz (-99dB/0.001%). As you can see, there are four higher-order harmonic distortion components, one of which is more than 100dB down and the others more than 110dB down (0.0003%).

Graph 2 shows total harmonic distortion at 1kHz when the Soul Note A-2 Ver2 was delivering one watt into a



Graph 3. THD at 1kHz at 20-watts into an 8-ohm non-inductive load



Graph 6. IMD (19/20kHz 1:1) at 20-watts into an 8-ohm non-inductive load

standard non-inductive 4Ω load and we can see essentially all the same harmonic distortion components, in nearly the same relationships, but at very slightly elevated levels. The first two harmonics are still, however, more than 62dB down (0.079%), the second two sitting at -80dB (0.01%), the next two more than 90dB down (0.003%) and the remainder more than 100dB down (0.001%). If, as claimed, the Soul Note A-2 Ver2 does not employ negative feedback these are low levels of

distortion for this circuit type.

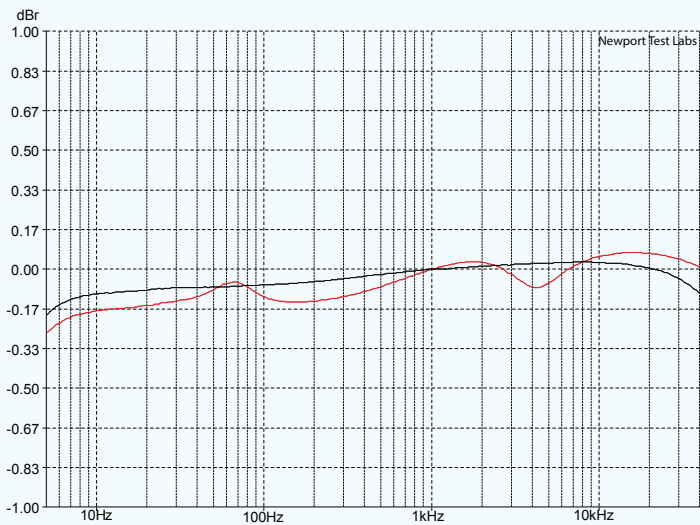
Looking at the noise floors on both Graph 1 and Graph 2, you can see that they are very low down indeed, sitting more than 120dB down across almost the entire audible range of frequencies. Even the noise from the 240V mains and the harmonics thereof (the spikes at the extreme left of the graph) are more than 100dB down. This is excellent performance. Note, however, that this does not mean the overall noise of the A-2 is more than 120dB down, only that the noise at any particular frequency (not counting mains noise) is more than 120dB down. Overall summed noise (the signal-to-noise ratio) referenced to rated output of one watt was measured as 98dB unweighted, improving to 103dB with A-weighting applied (about which more later).

Distortion increased as output power increased, as one would expect and physics would dictate, so that, as you can see in Graphs 3 and 4, the levels of the harmonic distortion components increased, and additional higher-order components were introduced. These graphs also showed slightly lower distortion with a higher-impedance load. Overall, distortion was still relatively low, with the four lowest-order distortion components being at or below -80dB (0.01%) and the higher-order components all below -100dB (0.001%). It's worth noting that the human ear perceives lower-order distortion components as making musical sounds seem 'richer' due to their relationship to the fundamental (the second harmonic of middle C is the C the octave above middle C, for example: play the two notes together on the piano and the resulting sound is much richer than that of middle C on its own, but it's difficult to discern that two different notes are being played simultaneously).

The levels of the individual harmonic distortion components notwithstanding, overall THD+N across the audio band was measured by *Newport Test Labs* as being 0.037%, a test result that is an order

Essentially, the sound was absolutely true-to-life, and I cannot ask anything more of an amplifier than this!

Graph 7. Frequency response into 8-ohm non-inductive load (black trace) and into simulated loudspeaker load (red trace).



of magnitude better than Soul Note's specification of 0.16%.

Channel separation was more than adequate across the audio band, as you can see from the tabulated figures, with a best result at 1kHz of 94dB. The 'worst-case' result of 65dB (at 20kHz) is still more than enough to ensure audibly perfect channel separation, though perhaps a little shy of what's technically possible in audio amplifier design. Channel balance was a superb 0.013dB at 1kHz.

As mentioned previously, the signal-to-noise ratios measured by *Newport Test Labs* for the Soul Note A-2 Ver2 were very good, irrespective of whether they were referred to 1-watt or to rated output, as shown in the tabulated results, but the lab's measurement of 103dB (A-weighted) referred to rated output came up considerably shy of Soul Note's specification of 110dB, so maybe Soul Note uses a different measurement methodology. That said, any triple-digit S/N ratio will guarantee complete circuit silence in any listening room.

Newport Test Labs measured damping factor at 1kHz as being 50, on top of a measured output impedance of 0.16 ohms, which is 'way down on the 133 that was measured for the original A-2 (which had an output impedance of 0.06 ohms), but once again, this is to be expected of an amplifier that does not use negative feedback. It's this lower damping factor that is the reason for the variations in the measured frequency response into a simulated loudspeaker load shown in Graph 7. Although a DF of 50 is not a high figure, no less an authority than Floyd E. Toole wrote a long article stating that it was 'sufficient' because his experiments proved that no-one could hear any difference in sound between an amplifier with this damping factor and one

with a higher damping factor.

The Soul Note A-2 Ver2's performance when reproducing square waves was, as you can see from the oscillograms and, as you'd expect from the measured frequency response, excellent. The 100Hz square wave shows the very slight tilt you'd expect from an amplifier that is not DC coupled, but no bending that would have otherwise have indicated phase shift. The 1kHz waveform is nigh-on perfect save for a tiny glitch that is probably the result of a slight lift in frequency response in the ultrasonic region, one that's so high in frequency that it can be ignored. The 10kHz square wave is very clean, showing a super-fast rise time, thanks to the performance of the transistors used in the A-2 Ver2's output stage. Loaded with an extremely reactive load (2μF in parallel with 8 ohms) the Soul Note remained completely stable and exhibited only a ¼ wave-height overshoot plus some ringing that was very quickly damped within just a few cycles.

The Soul Note A-2 VER2 integrated amplifier demonstrated excellent performance on *Newport Test Labs*' test bench across all measured parameters, meeting or exceeding its manufacturer's published specifications in nearly every case. - Steve Holding

SPECS
Power Output (8 ohms): 80 watts/ch
Power Output (4 ohms): 200 watts/ch
Frequency Response: 3Hz – 240kHz (±1.0dB)
S/N Ratio: 110dB (IHF-A)
THD: 0.16%
Input Sensitivity: 700mV
Power Consumption (Max): 210 watts
Power Consumption (Idle): 70 watts
Dimensions (WHD): 430x160x423mm
Weight: 20kg