

Ayre Acoustics MX-R

Editor:

It's always gratifying when someone appreciates your efforts, but Wes Phillips' review of the Ayre MX-R was truly special. Wes clearly understood our goals and articulated them in a brilliant way: "[the MX-R's] sole purpose appears to be to praise music and to glorify it." That's the kind of appreciation that makes all the hard work worthwhile!

During the four months we spent refining the circuitry by ear, the amplifiers crossed a threshold whereby even previously "unlistenable" recordings became musically engaging. As Wes found, this is the true breakthrough of the MX-R: every single recording in your collection becomes enjoyable, rather than just a handful of audiophile "specials."

Wes also noted that an extended break-in period is required to achieve the full sound potential of these amplifiers. This is primarily due to the ultra-high-speed PCB material used. As can be seen in the photo of the interior, this ultra-low-loss formulation from the Rogers Corporation has an unusual white appearance. (It is also ultra-expensive, costing over 20 times as much as the standard audio-grade glass-epoxy formulation!)

John Atkinson's standard-setting measurements showed the high level of performance that a zero-feedback design can achieve. A bandwidth beyond 200kHz and a distortion level of just 0.015% at 100W into 8 ohms is excellent measured performance by any standard. The engineer in me was also gratified to see the textbook-perfect 10kHz square-wave. This was completely free of overshoot on the leading edge, which leads to an overemphasis of musical transients. Such designs can seem to offer improved resolution in short-term listening, but become fatiguing over the long haul.

As John noted, the gain of the MX-R drops slightly as it warms up. This is due to the change in transconductance in the input J-FETs with increasing temperature. A conventional design would mask this with feedback, but the zero-feedback MX-R showed a 0.4dB drop from "dead cold" to a "worst case: almost too hot to touch" scenario. In normal use, the gain variation is negligible.

Finally, the supplied 10-amp output-rail fuses would normally be changed to 15 amps for a full-power test into 2 ohms. When the undersized fuses blew (at 775W!), one of the driver transistors in the test unit also failed. This was due to an error on my part. The driver transistors are protected by a separate fuse, which in the test unit was a 500mA part instead of the correct value of 160mA. So no need to apologize for breaking the amplifier, John; the fault was mine. I'm only sorry that you didn't have a chance to enjoy listening to the MX-Rs in your own system after completing the measurements. *Charles Hansen*
Ayre Acoustics

P.S. The fact that Wes found the MX-Rs to be "sexy" is no doubt due to our old friend the Golden Ratio. We used the Golden Ratio proportions in the design of the MX-R's chassis; as Art Dudley found when examining Uma Thurman ("Listening," March 2006), these proportions are quite definitely ideal.