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JOHN ATKINSON

MBL Corona C15

MONOBLOCK POWER AMPLIFIER

A year or so ago, in my review of the Pass Labs XP-30 preamplifier,[1] I wrote that the heart of an audio system is the preamplifier, in that it sets the overall quality of the system's sound. But it is the power amplifier that is responsible for determining the *character* of the system's sound, because it is the amplifier that must directly interface with the loudspeakers. The relationship between amplifier and loudspeaker is complex, and the nature of that relationship literally sets the tone of the sound quality.

I first became aware of the significance of a system's amplifier with one of the first reviews of mine ever published: of the Krell KSA-50 amplifier, in the August 1983 issue of British magazine *Hi-Fi News & Record Review*. By May 1988, when I reviewed the awesome Mark Levinson No.20 monoblocks for *Stereophile*, I had become convinced that while a great amplifier can wrest great sound from modest loudspeakers, a modest amplifier will *not* do the same for great speakers. For the past few years, therefore, I have had on long-term loan an arsenal of monoblock amplifiers to try with the speakers I review: Lamm M1.2 Reference, Classé CTM-600, MBL Reference 9007, and Pass Labs XA60.5;[2] and, every couple of years, I drag out that original KSA-50 that I purchased following my 1983 review.

1 See www.stereophile.com/content/pass-laboratories-xp-30-line-preamplifier.

2 The Classés have since been returned—I felt guilty for having hung on to them for so long. I've offered to return the Lamms, which I've had for almost as long, but Vladimir Lamm has told me that he's okay with extending the loan period. I held on to the Pass Labs and MBL 9007 amps specifically to use as references for this review.

3 See www.stereophile.com/solidpoweramps/906mbl/index.html.

The four monoblock models are all great amplifiers, but each imposes on the system's sound a different character. The Pass Labs XA60.5s excel at soundstaging and image palpability, but lack the iron grip on a loudspeaker's bottom end exerted by the high-dynamic-range Classés; the Lamms' forceful sound lacks some of the MBLs' subtlety, though the 9007s' low frequencies lack a little by comparison in terms of ultimate authority. Which amplifier I prefer has depended on the loudspeaker I'm reviewing.

The MBL 9007 was reviewed for *Stereophile* by Michael Fremer in September 2006[3]—an eternity ago in amplifier years. So when, at the 2013 Consumer Electronics Show, MBL North America's Jeremy Bryan showed Larry Greenhill and me the German company's new Corona C15 monoblock ($25,000/pair), I put it on my "must review" list.

The Corona Line

"Corona stands for the ideal fusion of high end sound & and innovative design concept. . . . [a] perfect match for almost any type of room interior," says MBL in its literature. The Corona C15 certainly looks very different from the high-end norm. There are none of the usual black heatsink fins, as the C15 uses a cool-running class-D output stage. Instead of the ubiquitous rectangular box, this modestly sized amplifier comes in an elegant white- or black-gloss–finished case, its center section finished in gold, or a chrome-like finish MBL calls Palinux. No fasteners are visible. Although its case is made of 4mm-thick aluminum (the vented rear panel is steel), the C15 is surprisingly heavy for a class-D design, at 48.5 lbs. This is due to the use of extensive internal magnetic

SPECIFICATIONS

Description Solid-state monoblock power amplifier. Inputs: 1 single-ended (RCA), 1 balanced (XLR). Outputs: 2 pairs binding posts. Rated power output (1kHz at 1% THD+N): 280W into 8 ohms (24.5dBW), 480W into 4 ohms (23.8dBW) (originally 500W, 24dBW), >500W into 2 ohms (>21dBW). Peak output voltage: 85V peak. Peak output current: 28A peak (originally 36A). Absolute polarity: non-inverting (RCA; XLR, pin 2 hot). Voltage gain: 26dB (RCA), 26dB (XLR High), 20dB (XLR). Frequency range: <10Hz–50kHz. Input impedance: 20k ohms (XLR, XLR High), 10k ohms (RCA). Input sensitivity, 1W into 4 ohms: 100mV (RCA), 100mV (XLR High), 200mV (XLR). Input sensitivity, 500W into 4 ohms: 2.2V (RCA), 2.2V (XLR High), 4.4V (XLR). Distortion: typically 0.01% at 5W, 20Hz–20kHz. Signal/noise: 127dBA ref. 500W into 4 ohms, 100dBA ref. 1W into 4 ohms. Damping factor: >100. Power consumption: <0.5W in standby, <50W in idle, <900W at 500W into 4 ohms. **Dimensions** 17.7" (450mm) W by 5.7" (145mm) H by 17.5" (445mm) D. Weight: 48.5 lbs (22kg). **Serial numbers of units reviewed** C00451, '452. **Price** $25,000/pair. Approximate number of dealers: 10. **Manufacturer** MBL Akustikgeräte GmbH & Co. KG, Kurfürstendamm 182, 10707 Berlin, Germany. Tel: +49 (0) 30 2300584-0. Fax: +49 (0) 30 2300584-10. Web: www.mbl.de. US distributor: MBL North America, Inc., 85 Island Drive South, Ocean Ridge, FL 33435. Tel: (212) 724-4870. Fax: (212) 724-4871. Mobile: (917) 306-7588. Web: www.mbl-northamerica.com.

The LASA design maintains a consistent output impedance, meaning that the rolloff above 20kHz is identical into all loudspeakers.

ERIC SWANSON

shielding of mu-metal, an alloy of nickel, iron, copper, and chromium (or molybdenum).

A turquoise, fluorescent, alphanumeric display is set into the 16mm-thick front panel. In conjunction with three small buttons above it, this display allows the user to choose the input, access the setup menu, and switch the C15 in and out of Idle mode. A button at the bottom left of the front panel brings the amplifier out of Standby mode. At the front of the top panel, a circular, 40mm-diameter button bearing the MBL logo and illuminated with a white ring allows the display to be dimmed in three steps or turned off completely.

On the rear panel are RCA and XLR input jacks, two pairs of high-quality binding posts, an SD card slot for firmware updates, a master on/off switch, the IEC AC input, and two RJ45 jacks for MBL's SmartLink, to allow communication among system components. The C15's rated output power is 280W into 8 ohms or 480W into 4 ohms,[4] and its gain can be switched between 20dB balanced, labeled "XLR" on the display; and 26dB balanced or single-ended, respectively indicated by the display as "XLR High" and "RCA."

Design

Although I've said that the Corona C15 has a class-D output stage, MBL's chief engineer, Jürgen Reis, refers to the design as a "Linear Analog Switching Amplifier Design" (LASA). As he explained in an e-mail, "the only thing our LASA concept has in common with typical class-D is the low heat radiation. Nothing else. LASA stands for the *complete* concept, not only for the switching core module." The C15 uses a version of the well-respected Hypex class-D module, designed by Bruno Putzeys, but Jeremy Bryan, clarified via e-mail that "the boards that contain the UCD modules are made for MBL to our proprietary specification. They are *not* standard boards available to any consumer or other OEM customer." Reis confirmed that MBL's OEM modules "differ from the regular one in parts, measurements and sound . . . This work with Hypex modules started about 7 years ago. Those [first modules] were good, but it needed time [for me] to understand what parameters influence the sound . . . and to change the good basic concept [to the point where it matches] our 'house sound.' . . . [W]e changed the modulator behavior in order to get our requested THD performance and changed the input parts to get the tonal balance required."

The LASA concept includes using a linear power supply rather than the switch-mode supply that many companies use. "Our power supply consists of a toroidal power transformer that has mu metal shielding to prevent magnetic

4 While I was preparing this review, Jürgen Reis e-mailed me to let me know that the specifications in the Corona C15's manual were based on initial production, and that two things have since been changed: "We improved the power transformer behavior to have a better common- and differential-mode suppression against the mains (which improves the sound), but that reduces the power output a tiny bit from 500W into 4 ohms to 480W. We also made the current protection a bit safer and reduced the maximum output current (depending [on] the time width of the impulses) from 36A to 28A. This reduced the steady-state output power into 2 ohms, but not for impulses shorter than about 100ms."

MEASUREMENTS

I performed a full set of measurements using *Stereophile*'s loan sample of the top-of-the-line Audio Precision SYS2722 system (see www.ap.com and the January 2008 "As We See It," www.stereophile.com/content/measurements-maps-precision). The Corona C15 has a switching output stage, which produces ultrasonic noise that would overload the Audio Precision's input circuitry. To eliminate this noise, I carried out most of the tests using, ahead of the analyzer, Audio Precision's AUX-0025 passive low-pass filter (see http://ap.com/products/accessories/aux0100).

Before performing any measurements, I ran both MBL Corona C15s for an hour at one-third the specified maximum power of 280Wpc into 8 ohms. This is thermally the worst case for an amplifier with a class-B or -AB output stage, but is an irrelevant test for an efficient class-D amplifier, which uses almost all the power drawn from the wall to create the output signal. At the end of that period, the C15's chassis was only mildly warm, at 85.6°F (29.8°C), though I was sure that the amplifier was now fully warmed up for testing.

The MBL's voltage gain at 1kHz into 8 ohms was to specification, at 26dB for the XLR High and RCA inputs, 19.95dB for the XLR input setting. Both the balanced and unbalanced inputs were non-inverting, the XLR jack being wired with pin 2 hot. The input impedance was also close to the specified values at low and middle frequencies, measuring 19.6k ohms balanced and

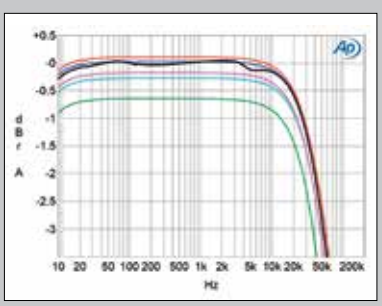

Fig.1 MBL Corona C15, frequency response at 2.83V into: simulated loudspeaker load (gray), 8 ohms (left channel blue, right red), 4 ohms (left cyan, right magenta), 2 ohms (green) (0.5dB/vertical div.).

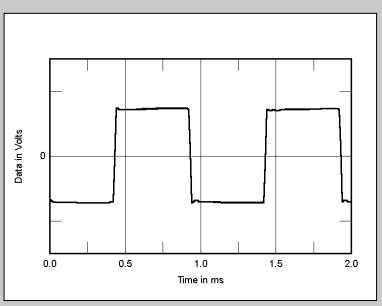

Fig.2 MBL Corona C15, small-signal 1kHz squarewave into 8 ohms.

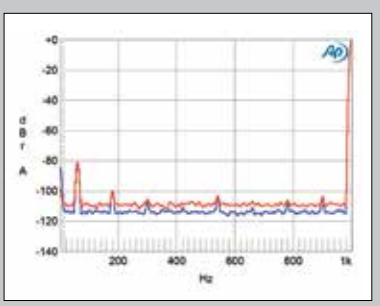

Fig.3 MBL Corona C15, spectrum of 1kHz sinewave, DC–1kHz, at 1W into 8 ohms (left channel blue, right red, linear frequency scale).

disturbance from the mains [from entering] the unit," Reis explained, adding that the transformer also has electrostatic shielding, "to prevent any stray coupling between mains and the unit." There are separate power supplies for the control and audio circuits, and complete galvanic isolation between all the supplies. MBL also uses low-drop, fast-recovery rectifiers to give a low level of power supply-generated noise.

In terms of sound quality, of primary importance in the LASA concept is that, unlike a conventional class-D design, its level of distortion doesn't rise as the frequency increases (see my "Measurements" sidebar). The distortion level is also claimed to vary very smoothly with output power. Together, these factors mean that the character of the amplifier's sound should not change with different musical instruments and/or at different loudnesses. The C15 also features "soft clipping," said Reis: "even in the moments when the signal goes into clipping, the sound doesn't get aggressive or too bright and always remains in the balanced tonal character."

Of equal importance, said Reis, is the fact that the C15's output impedance doesn't increase with frequency (again, see "Measurements"). Because a class-D amplifier generates high levels of ultrasonic and RF energy, a typical class-D amplifier uses a passive low-pass filter between its output devices and output terminals. This filter needs to be tuned to a single load impedance, meaning that with speakers that have a different impedance, the amplifier either prematurely rolls off the top octave or peaks above the audioband. The LASA design maintains a consistent output impedance, meaning that the rolloff above 20kHz is identical into all loudspeakers, and that there is no ultrasonic peaking.

With the Rogers LS3/5As driven by the MBL C15s, there was an extraordinary evenness to the sound of Jerome's bass.

Sound Quality

I used the Corona C15s for several months of loudspeaker reviews, alternating them with the amplifiers mentioned earlier. Unless otherwise stated, my comments on sound quality are a portmanteau of my experience with all of those speaker models: Vivid Audio Giya G3, Joseph Audio Perspective, and Rogers BBC LS3/5A, the last two also used with the

measurements, continued

9530 ohms unbalanced. These figures dropped slightly at 20kHz, to 19k ohms and 6760 ohms, respectively. The output impedance was very low for a class-D amplifier, at 0.1 ohm at 20Hz and 1kHz, rising slightly to 0.13 ohm at 20kHz. (Both figures include 6' of speaker cable.)

With this low and consistent output impedance, the modulation of the amplifier's frequency response by the Ohm's law interaction between this impedance and that of our standard simulated loudspeaker was minimal (fig.1, gray trace). What is also significant about the traces in this graph is that, unlike typical class-D amplifiers, in which a low-pass filter on the output must be optimized for one specific load impedance, the C15's low-pass function into 4 ohms (cyan and magenta traces) and 2 ohms (green) is very similar to its 8 ohm behavior (blue, red). Usually, the mismatch into loads other than the one for which the amplifier's filter has been optimized results in ultrasonic peaking. (See, for example, fig.1 in my measurements of the Mark Levinson No.53 amplifier, http://tinyurl.com/n55ayyf.) The C15's output is down by just 0.5dB at 20kHz into 8 ohms, and the amplifier's reproduction of a 1kHz squarewave into that load (fig.2) was superbly well defined, with just a trace of critically damped leading-edge overshoot. I haven't shown the 10kHz squarewave, because I couldn't get sufficiently consistent triggering to average enough captures to get a graph suitable for publication. But the risetime of the 10kHz squarewave was slowed by the amount I expected from the ultrasonic rolloff in the frequency-response measurement.

Without the AUX-0025 passive low-pass filter, and with no signal present, one C15 had 897mV of ultrasonic noise present on its output, with a center frequency of 318kHz. The other amplifier had 969mV of noise with a center frequency of 311kHz. With the filter, the unweighted audioband signal/noise ratio, taken with the XLR input shorted, was 76.2dB ref. 2.83V into 8 ohms for one amplifier, 74.8dB for the other. These ratios both improved by 0.8dB when the input was switched to XLR High mode, and to 82.1dB and 78.8dB, respectively, when A-weighted. Spectral analysis of the low-frequency

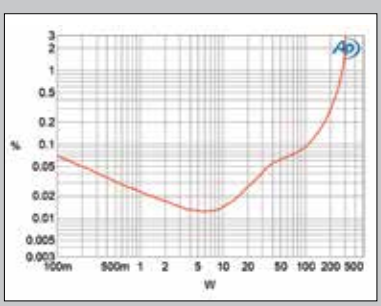

Fig.4 MBL Corona C15, distortion (%) *vs* 1kHz continuous output power into 8 ohms.

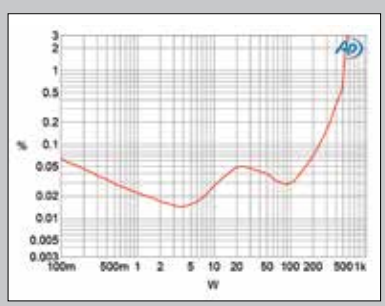

Fig.5 MBL Corona C15, distortion (%) *vs* 1kHz continuous output power into 4 ohms.

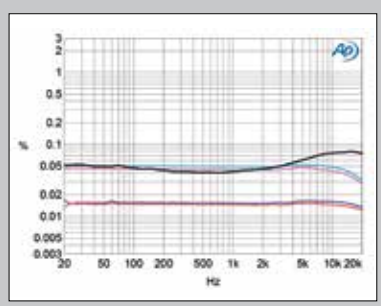

Fig.6 MBL Corona C15, THD+N (%) *vs* frequency at 8.94V into: 8 ohms (left channel blue, right red), 4 ohms (left cyan, right magenta), 2 ohms (gray).

EnigmAcoustics Sopranino supertweeters I review elsewhere in this issue. MBL North America's Jeremy Bryan felt that the C15 sounded its best after being left on for several hours and with its front-panel display dimmed. I concur with him on both counts.

The C15's intrinsic character was all about control, especially the tight control of low frequencies. The Vivid Giya G3's woofer alignment is on the rich side, and benefits from being driven by an amplifier that can keep a tight grip on the bass. In this respect the C15 was as good as the Classé CTM-600—the combination of the Giya G3s and C15s proved optimal in my room, whose lowest-frequency mode coincides with the tuning of the Vivids' ports.

With this setup, my bass-guitar tracks on *Editor's Choice* (CD, Stereophile STPH016-2) had the perfect combination of leading-edge definition and tonal weight. But the low frequencies were *too* tight when the C15s drove the Joseph Perspectives, whose low-frequency performance, I suspect, was voiced with softer-sounding amplifiers. Charlie Haden's rather subdued-sounding double-bass solos in *Live at Birdland*—with Lee Konitz on alto sax, Brad Mehldau on piano, and the late Paul Motian on drums (CD, ECM 2162)—were superbly defined with the MBL C15s, if a little lacking in weight on these speakers.

However, the balance now tended to be on the lean side, though it was *very* clean. This was not a problem with well-recorded music, which the Corona C15 had no trouble playing loud without strain. A track I've become very familiar with in recent years, from MBL North America's use of it at shows, is "Walchensee, Mondnacht," from Martin Vatter's *Klangbilder* (24-bit/88.2kHz ALAC file, Martin Vatter label). Recorded by MBL's Jürgen Reis, this track features a close-

ASSOCIATED EQUIPMENT

Analog Sources Linn Sondek LP12 turntable with Lingo power supply, Linn Ekos tonearm, Linn Arkiv B cartridge.
Digital Sources Ayre Acoustics C-5xe^{MP} universal player; dCS Vivaldi SACD/CD player–D/A system; Apple 2.7GHz i7 Mac mini running OS10.7, iTunes 10, Pure Music 1.89, Audirvana Plus 1.5.10; NAD M50 media player with NAD M52 and NetGear RAID arrays; Logitech Transporter media server; NAD M51, Auralic Vega D/A converters; Arcam rBlink Bluetooth DAC; Ayre Acoustics QA-9 USB A/D converter.
Preamplification Channel D Seta L phono preamplifier, Pass Labs XP-30 line preamplifier.
Power Amplifiers Lamm M1.2 Reference, MBL 9007, Pass Labs XA60.5 (all monoblocks).
Loudspeakers Joseph Audio Perspective, Rogers BBC LS3/5A, Vivid Audio Giya G3; EnigmAcoustics Sopranino supertweeters.
Cables Digital: Kubala-Sosna Elation! AES/EBU, AudioQuest Coffee, Belkin Gold USB, Transparent USB (with dCS Vivaldi). Interconnect (balanced): Kubala-Sosna Elation!, Transparent, AudioQuest Wild Blue. Speaker: Kubala-Sosna Elation!. AC: Kubala-Sosna Elation!, manufacturers' own.
Accessories Audio Power Industries 116 Mk.II & PE-1, APC S-15 AC line conditioners (computers, hard drive); ASC Tube Traps, RPG Abffusor panels; Ayre Acoustics Myrtle Blocks; Target TT-5 equipment racks; Shunyata Research Dark Field cable elevators; AC power comes from two dedicated 20A circuits, each just 6' from breaker box.

—John Atkinson

measurements, continued

noise floor while the C15s drove a 1kHz sinewave into 8 ohms at 2.83V (fig.3) revealed that the random noise in their outputs was low in level, at –110 and –113dB, but each had a small amount of 60Hz at –81dB (0.01%), along with some much lower odd-order harmonics. Although this was most likely due to magnetic interference from the AC transformers, I could hear no hum, even with an ear pressed up against a speaker's woofer.

The C15 is specified as delivering a maximum output of 280W into 8 ohms (24.5dBW). I measured an output of exactly 280W into 8 ohms at 1% THD+noise (fig.4), which is our usual definition of clipping. I measured 520W into 4 ohms at 1% THD+N (24.15dBW, fig.5), which is slightly more than the specification of 480W into this load. I tried to measure the clipping power into 2 ohms, but cut short the test at 620W (21.9dBW). The distortion level (not shown) was 0.28%, but the amplifier being tested was starting to mechanically hum and buzz, and I was concerned I would break it. Even so, this is well above MBL's specified maximum power of ">500W" into 2 ohms.

The shapes of the traces in figs. 4 and 5 suggest that the THD+N percentage is dominated by noise below a few watts, so I measured how the THD+N varied with frequency at 8.94V (equivalent to 10W into 8 ohms, 20W into 4 ohms, and 40W into 2 ohms), a level at which I could be sure I was looking at true distortion. The results are shown in fig.6. The two C15s are very closely matched, and while the

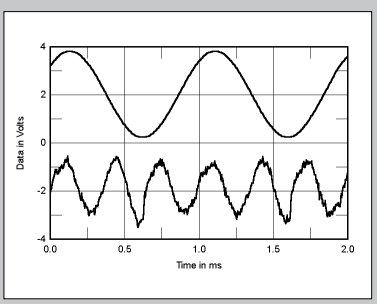

Fig.7 MBL Corona C15, 1kHz waveform at 12W into 8 ohms, 0.018% THD+N (top); distortion and noise waveform with fundamental notched out (bottom, not to scale)

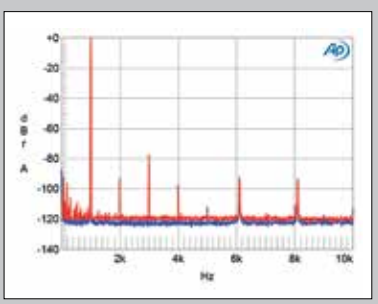

Fig.8 MBL Corona C15, spectrum of 1kHz sinewave, DC–1kHz, at 12W into 8 ohms (linear frequency scale).

miked piano that Vatter manipulates by damping the strings with his hands to produce harmonics and various strummed and percussive effects. The C15s and Vivids produced an *enormous* sound with this recording. But on the rather overcooked recording of Buck Owens's "Foolin' Around" on *Bakersfield*, Vince Gill and Paul Franklin's tribute to Owens and Merle Haggard (CD, MCA 80018655-02), the C15s sounded somewhat relentless. Great music, however—my thanks to music editor Robert Baird for giving me a copy of the CD.

So, yes—the Corona C15 had wide dynamic-range capability without its intrinsic character changing. But I kept remarking in my listening notes on the amplifier's evenly balanced low frequencies. I had problems mixing Jerome Harris's Taylor acoustic bass guitar when I produced his *Rendezvous* (CD, Stereophile STPH013-2, now out of print). Jerome plays very melodically and with an empathetic touch, but if I brought up the level of the bass guitar too much in the mix, it started to compete with rather than reinforce the solo instruments. Some listeners have criticized this album, which made through the first round of votes for the 2000 Grammy awards, for the bass being too quiet. So several years after its release, I tried remixing it—and ended up with almost identical bass-guitar levels.

I suspect that *Rendezvous* is sensitive to speakers and systems that lack lower-midrange clarity. With the Rogers LS3/5As driven by the MBL C15s, there was an extraordinary evenness to the sound of Jerome's bass. Though lacking the ultimate weight it had through bigger speakers, it spoke cleanly and clearly, to the benefit of the music. If ever there needed to be an example of the thesis I laid out at the beginning of this review, this was it—the expensive amplifiers allowed these speakers to transcend their age and their humble size and price.

The Rogers-MBL combination's superb imaging definition and stability made for a synergistic match with the EnigmAcoustics supertweeter. In March, I recorded New York alto saxophone player Rocco John Iacovone, empathetically backed by Philip Sirois on double bass and John Pietaro on percussion, at the Goodbye Blue Monday club in Williamsburg, Brooklyn. I used a Zoom H4n SD-card recorder running at 24/96, but used an outboard pair of DPA 4011 cardioid mikes rather than the Zoom's own mikes. Yes, this recordist got lucky that night, but the MBL-Rogers-EnigmAcoustics system took me back to the club—not only were the images of all three players solidly positioned in three-dimensional space, but, to a surprisingly lifelike degree, I "heard the walls" of the intimate club surroundings. It is experiences like this with a two-channel recording that make me reluctant to deal with the extra system complexity mandated by surround-sound playback.

The C15's stability of imaging worked with the other speakers. As I write this review, I'm listening to the MBL amplifiers and Joseph speakers reproducing David Oistrakh's 1969 recording of the Brahms Violin Concerto with George Szell and the Cleveland Orchestra (16/44.1 ALAC files ripped from CD, EMI Classics 9 55978 2). (This recording had been sent to me in a pitch-corrected version by John Marks. The A above middle C now equals 440Hz, whereas the SACD transfer he recommended in his 2014 "Records to Die For" was pitched closer to A=446Hz, perhaps due to faulty speed control on either the original recorder or the playback machine; John will be writing about this recording in a future "The Fifth Element"

measurements, continued

THD increases from 0.015% into 8 ohms (blue and red traces) to 0.05% into 4 ohms, as expected, the 2 ohm trace (gray) is no different from the 4 ohm traces (cyan, magenta). Other than the 2 ohm result, where there is a small rise in THD above 5kHz, the traces in this graph are remarkably flat with frequency. Some class-D amplifiers suffer decreasing linearity as the frequency increases, but not this MBL.

The distortion waveform at 12W into 8 ohms is predominantly third harmonic (fig.7), though some higher-order harmonics, as well as the second, are present at levels between –90 and –100dB (0.001–0.003%). While the levels of the harmonics increase at higher powers into 8 ohms, the third remains predominant (fig.8). Reducing the load to 4 ohms brings up the level of the second harmonic (fig.9), though still not to the level of the third. The C15's transfer function appears to remain relatively consistent with both frequency and output current. Spectral analysis of the MBL's output while it drove an equal mix of 19 and 20kHz tones into 8 ohms at a level a few dB below visible clipping on the oscilloscope (fig.10) indicated that actual intermodulation distortion was low. The difference component at 1kHz lay at –90dB (0.003%), and the higher-order products at 18 and 21kHz lay at –74dB (0.02%). However, some low-level enharmonic components make an appearance.

I am always leery of measuring class-D amplifiers—their performance can be, shall I say, idiosyncratic. But no excuses need be made for MBL's Corona C15. This is an impressively well-engineered amplifier.**—John Atkinson**

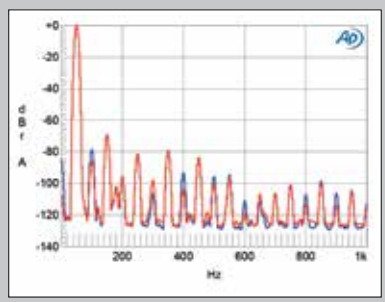

Fig.9 MBL Corona C15, spectrum of 50Hz sinewave, DC–1kHz, at 110W into 8 ohms (linear frequency scale).

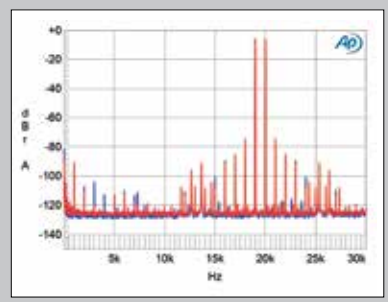

Fig.10 MBL Corona C15, HF intermodulation spectrum, DC–30kHz, 19+20kHz at 100W peak into 8 ohms (linear frequency scale).

column.) The orchestral image was well delineated, but when the world's largest violin entered at 2:50 in the first movement, my disbelief became impossible to suspend. With the Joseph Perspectives driven by the Corona C15s, everything in this musically extraordinary but sonically compromised 1969 recording was laid bare.

But when the recording was more naturally balanced—*eg*, Iván Fischer and the Budapest Festival Orchestra's superb 2004 performance of Rachmaninoff's Symphony 2 in equally superb sound (DSD64 files, Channel Classics 21604)—the artifice of both recording and playback could be forgotten.

Comparisons

The MBL C15s didn't produce the same degree of imaging palpability as the Pass Labs XA60.5s. But I'm beginning to believe that these Nelson Pass–designed amplifiers are really quite special, and especially so for their relatively real-world price of $11,000/pair. However, the XA60.5's bass is softer and warmer than the German amp's, and it offers 210W at clipping into 4 ohms compared with the MBL's 480W, which might be a problem with less sensitive speaker and larger rooms.

In direct comparisons, the Corona C15 didn't have quite the silky-smooth high frequencies of the considerably more expensive MBL Reference 9007 ($42,800/pair), but the C15's grip on the low frequencies was superior. This was an advantage with the Vivid speakers but not with the Josephs, whose presentation of Charlie Haden's double bass mentioned earlier benefited from the additional body imparted to his instrument by the 9007s.

Recommended, especially to those whose speakers need a firm fist on their woofers.

Summing Up

The unique selling propositions of a class-D amplifier are that it is efficient, lightweight, and inexpensive. MBL's Corona C15 offers only the first of these, but justifies its shortfalls in the two other areas by offering very high power, and sound quality on a par with what you'd expect from a high-end amplifier with a conventional linear output stage. While it may well sound too lean with some sealed-box speakers, such as some of the Magicos, it will be a synergistic match with MBL's own speakers, with their coupled-cavity low-frequency alignments. That it is also a beautiful piece of gear will be relevant to all but the hairiest-shirted audiophiles. Recommended, especially to those whose speakers need a firm fist on their woofers. ■

Pictured: Radialstrahler (mbl 116 F), CD Player (mbl C31), Preamplifier (mbl C11) with 2 Mono Power Amplifiers (mbl C15) – color finish: white/gold, option: center section complete in gold