Regular readers will recognise the distinctive form of this Corona Line component from Germany’s high-end MBL marque. As a Hi-Fi News exclusive we featured the Corona Line C31 CD player/DAC [Sept ‘12], mentioning that we had also secured a sample of the company’s matching integrated amplifier, this C51.

To recap briefly: the Corona Line is the recently-introduced ‘entry level’ range of components from a company famous for unashamedly luxurious audio systems that are a big draw at high-end hi-fi shows. While not everything MBL manufactures is the preserve of the super-rich, most of its products are mightily expensive. The company’s flagship system comprising its Reference Line electronics and fabulous 101 X-treme ‘Radialstrahler’ omni-directional loudspeakers would set you back a cool £300,000.

MBL’s Corona Line components, then, are considerably more ‘real world’. But they’re still luxuriously appointed and exhibit rigorous attention to detail under their bonnets. In addition to the C31 CD player/DAC and the C51 integrated amplifier here, the range includes the C11 preamplifier, which can be partnered with either the C21 stereo power amp or two C15 monoblocks. There’s a matching C61 FM/DAB+/DVB-S tuner too.

Exactly like the CD player/DAC the C51 integrated employs a steel chassis with aluminium ‘over-skin’, a case-within-a-case construction that has no visible screw fixings. I can’t say I’m a big fan of the gold trim on our test sample, but alternative colour/trim combinations are available. To my eyes these Corona Line components, both black and white variants, look more attractive with their trim in Palinux – a silver-coloured precious alloy. Added-cost options include having the insulating feet and centre ‘strip’ portion of the bonnet similarly finished in gold or Palinux (£950), and the casework’s side cheeks can be finished in piano lacquer – a further £600.

**IT’S CLASS D**

All of the amplifiers in the Corona Line are new Class D designs from MBL, featuring what the company calls its Linear Analogue Switching Amplifier technology [see the Ed’s boxout]. Rated at 180W/8ohm and 300W/4ohm, the C51 is a considerable powerhouse in a moderately compact chassis, the size of its case identical to that of the C31 CD player/DAC. Employing a linear power supply with multiple regulation, the amplifier has a toroidal transformer encapsulated in a MU metal shield to prevent magnetic disturbance from the mains entering the unit. A further electrostatic shield aims to prevent stray coupling between the mains and the amplifier’s audio circuits.

The C51’s input stages have been designed using carefully selected discrete components, while its volume control is a motorised potentiometer; the level setting is indicated by a bargraph type meter in the large display panel on the fascia.

There are no legends on the row of control buttons on the front panel as they act as ‘soft keys’, their context-sensitive functions shown in the display once the amplifier is turned on. Entering a simple setup menu allows you to disable any unused inputs, including the digital inputs of the partnering C31 CD player/DAC. This is a key feature of this Corona

Packing a mighty Class D punch, this integrated amp forms the heart of MBL’s latest Corona Line electronics – designed to make extreme high-end audio a little less costly.

**Review:** John Bamford  
**Lab:** Paul Miller
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Line components is a compact handset
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The remote controller for MBL's Corona
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major functions including display dimming/
off. All the buttons are the same size, with
the volume up/down keys buried in the
middle of the cluster. But one only has to
live with it for an hour or so to become familiar with the layout.
As for connectivity options, at the
rear is one balanced (XLR) input and four
single-ended (RCA) inputs, plus a further
RCA 'Processor' input that hooks directly
into the C51's power amp stage. There's
a single-ended (RCA) volume-controlled
line output should you wish to use the C51
as a preamplifier, and a further fixed-level
'record' output (RCA). There's also a pair of
blanking plates above the XLR input sockets
that allows either a second balanced (XLR)
input to be fitted (£387 extra) or MBL's
Corona Edition moving-coil phono stage
(with single-end RCA inputs), priced £1089.

Above:

The MBL logo on the component's
top plate is encircled by an illuminated ring – a
corona – that can be pressed to dim display in
two stages (or switch it off entirely)
reminded me of the sound of Primare's
I32 integrated that we reviewed last year
[HN Jun '11]: crisp and startlingly clear,
with a subjectively 'black' background that
allows forensic inspection of details buried
in recordings. Also there was no evidence
of 'grain' at high frequencies that many
audiophiles complain about when listening
to some Class D amplifier designs.
Listening to familiar audiophile
recordings that can take one's breath
away, such as Patricia Barber's
'Bye Bye Blackbird'
from her Nightclub
album (Blue Note/
Premonition Records
90763) the C51
could be described a
little 'dry' and stark,
Barber's piano seeming a tad 'clangy'
and hard-edged when the sound was compared
alongside my resident Mark Levinson
No.383 amplifier. The MBL rendered the
recording with heightened presence,
Barber's voice thrown forward in the sound
image to create an uncommonly vibrant
and clear picture of the performers, but
lacking 'body' in the critical midband.
While it never failed to sound vivid, open
and highly detailed, it didn't take kindly to
difficult recordings. Take something 'hot'
and brash with spitty treble such as George
Michael's 'Spinning The Wheel' from Older
[Argos/ Virgin CDV2802] and the C51
highlighted the recording's sibilant and
splashy high frequencies. The bass energy
and precision was fabulous – deep, tuneful
and highly detailed, it didn't take kindly to
warts 'n' all presentation made for an
uncomfortable listen. Where my Levinson
rarely fails to sound civilised and musical,
the MBL C51 tended to tear recordings

The super-clean
C51 made light
work of the dense
instrumentation'

LASA CLASS

MBL's chief designer, Jürgen Reis, is very keen indeed that his LASA (Linear
Analogue Switching Amplifier) is not confused with an archetypal Class D model.
If you assume that Class D necessarily entails a switchmode PSU, then the C51
differs by employing a substantial linear power supply. But so do other Class D
amplifiers that we've featured in HFN. In common with other Class D types, the
C51 enjoys a very high efficiency (I measured 84% at its rated 2x180W output)
but it has none of the more troublesome drawbacks. Top of the list is the typical
variation in frequency response that occurs in sympathy with the attached
speaker load. The response of many Class D amplifiers will peak into loads
>8ohm but droop into loads below 4ohm. The response of the C51, like Class D
amps based on Bruno Putzeys' Hypex modules, is entirely unaffected by load. But
perhaps most impressive of all, this is the first 'Class D' we've encountered (not
including the Devialet D-Premier) whose distortion remains broadly unchanged
across the full audio spectrum. Whatever its name, it's a Class act. PM

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The MBL Corona Line C51 offers a consistent level of distortion with frequency – 0.004% to 0.008% from 20Hz-20kHz at 10W/8ohm (see Graph 2, below). Distortion, along with output impedance, tends to increase more sharply at the lower frequency with Class D amps but here the upwards trend is deferred to 30kHz+; the low 0.017% midrange output impedance finally reaching 0.5ohm/100kHz. The response is very extended at 3Hz-48kHz (–3dB) into 8ohm with the nearest change to 3Hz-38kHz (–3dB) into loads as low as 1ohm.

Tolerance of different speaker loads is assured. Noise, too, is very well managed for a switching amplifier, the C51 offering an 87.4dB A-weighted S/N ratio (re. 0dBW) and an overall gain of +36.2dB (balanced input). Finally, the channel separation of 105dB (midrange) to 89dB (20kHz) is also exceptional. Readers may view a comprehensive QC Suite test report for MBL’s C51 amplifier by navigating to www.hifinews.co.uk and clicking on the red ‘download’ button. PM

**MBL CORONA LINE C51 (£7500)**

If only all analogue ‘switching amplifiers’ offered the sophisticated performance of MBL’s C51. It has power aplenty, exceeding its rated 2x180W specification with 2x193W and 2x357W into 8/4ohm loads and benefiting from sufficient headroom to support peaks of 256W, 495W and 458W into 8, 4 and 2ohm under dynamic conditions (see Graph 1, below). Maximum current at <1% THD is 16.2A. The amplifier’s distortion increases linearly with power output from 0.002% to 1W to 0.005% at 10W and 0.05% at 100W/8ohm under both continuous or dynamic conditions. As Graph 1 illustrates, this has more in common with a good tube amp than a typical solid-state design, Class D or otherwise.

Quite unlike a tube amp, however, MBL has engineered the C51 to offer a consistent level of distortion with frequency – 0.004% to 0.008% from 20Hz-20kHz at 10W/8ohm (see Graph 2, below). Distortion, along with output impedance, tends to increase more sharply at the lower frequency with Class D amps but here the upwards trend is deferred to 30kHz+; the low 0.017% midrange output impedance finally reaching 0.5ohm/100kHz. The response is very extended at 3Hz-48kHz (–3dB) into 8ohm with the nearest change to 3Hz-38kHz (–3dB) into loads as low as 1ohm. Tolerance of different speaker loads is assured. Noise, too, is very well managed for a switching amplifier, the C51 offering an 87.4dB A-weighted S/N ratio (re. 0dBW) and an overall gain of +36.2dB (balanced input). Finally, the channel separation of 105dB (midrange) to 89dB (20kHz) is also exceptional. Readers may view a comprehensive QC Suite test report for MBL’s C51 amplifier by navigating to www.hifinews.co.uk and clicking on the red ‘download’ button. PM

Above: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads

**HI-FI NEWS VERDICT**

When used in combination with its natural partner – the luscious-sounding C31 CD player/DAC from MBL’s Corona Line range – it sounded all of a piece, with sensational imaging and thrilling dynamics. Audition the C31/C51 combo at your peril, as it’s highly addictive.

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