

# STEREO

THE GERMAN HIFI MAGAZINE

REPRINT STEREO MAGAZINE ISSUE #11

**»NEXT-GEN  
»NOBLE LINE«  
MBL's CD/DAC  
and amp:  
classic style  
meets digital  
hi-tech**

**»MQA UNDER FIRE  
The download boss  
who's not sold on  
the new hi-resolution  
»wonder format«**



**REPORTS: HOW ELAC'S REINVENTING ITSELF ++ ALL YOU  
NEED TO KNOW ABOUT MAINS CONDITIONERS +++ REVIEWS: DEVIALET'S  
SMARTER PHANTOM ++ BRINKMANN'S NYQUIST MEDIA PLAYER ++ AKG'S  
PRO-STYLE K 872 HEADPHONES - AND MORE!**





# Taken from the limit

After a long development period, the N31 CD player/DAC and N51 integrated amplifier now launch a new generation of MBL's midrange "Noble Line". Both fully embrace the current state of technology, while maintaining the traditions of the Berlin manufacturer.



Were I to be asked to describe the essence of the new N31 CD player/DAC and N51 integrated amplifier from MBL's "Noble Line", I'd do no more than hand over the heavy remote control. The object of beauty shown above, with its rotating chrome-plated ring for the volume control consistent with its shiny surface, has a solidity and finesse representative of the quality of the components it controls. Approach it with your hand, and the backlight glows up, indicating that its ready to take instruction!

It's a trick the remote handset shares with the 5in color TFT displays adorning the front panels of the N31 and N51, this striking feature giving the MBLs a modern look and reminding one of the large-format screens now common in cars - including their gesture control. Tiny buttons next to the display let you navigate, with labelling next to them changing according to the functions or menu in use.

## Top player – and converter

Designed in black, with gloss white and shiny metal detailing, the products of the revamped „Noble Line“ are certainly striking: the brand logo, proudly displayed on the top panel, is surrounded by a glowing aura. When touched, it varies its brightness, as well as that of the display, in six stages, or turns both off completely. The Power/Standby button is likewise ringed with an illuminated glow.

The N31 plays CDs to reference standards, but is also a highly accomplished





Extensive digital inputs and outputs mean the N31 is also a full-featured D/A converter. ►

digital-to-analog converter. Close attention has been paid to the circuit design for both the digital inputs and outputs and the analog output section, and the slot-loading disc transport has been optimized to take account of the effects of air turbulence and mechanical vibration.

## Fine tuning by filter

The digital inputs include two USB interfaces for PC or Mac, one of which is designed for high-bit signals up to 24 bits / 192kHz or „double DSD“ 5.6 MHz bandwidth. A narrow strip at the bottom of the CD-Text-capable display indicates the received format, which is useful as bottlenecks in the computer chain can deliver a diminished sound. If you can see the problem, rather than just having an inkling from listening that something is amiss, you can go into the computer settings and put things right.

In addition, there's a small symbol for the selected digital filter, of which the N31 has three on offer: our favourite, and that of MBL's Jürgen Reis, is „Minimum Phase“. With this everything is in the most beautiful order, the MBL sound

being wide, extended and to the horizon in depth; „Slow Roll Off“ suits singer/songwriter-style music with its slightly more comfortable, slightly rounded diction, while „Fast Roll Off“ makes the bass impulses really hard-hitting, but at the expense of some superficiality in the midrange. It's crisp and direct, but at the same time somewhat disjointed – just the thing for techno, perhaps?

That's almost it when it comes to adjustability: unless those manufacturers offering owners an almost limitless number of switchable parameters, MBL does (almost) everything for you. DAC-geeks will note with appreciation that the class-leading fully-balanced ESS Sabre 9018 is used, around which Reis has constructed a complex architecture in order to make the most of

**Minimum phase filter:** This digital filter imitates an „analog“ time behavior and is therefore considered the favorite for naturally-produced recordings.

its quality. In addition to those digital filters, this also includes three-stage jitter reduction.

In the N51 integrated amplifier, the mu-metal-encapsulated ring core transformer occupies the front two thirds of the internal space, along with the power supply capacitor banks. On the other hand, the power amplifier section is very small, despite more than healthy output, thanks to its use of 360kHz switching stages, which are both space- and energy-efficient, and generate very little heat.

This „LASA“ concept („Linear Audio Switching Amplifier“), developed by Jürgen Reis, was seen for the first time in 2012 in MBL's „Corona Line“ and has since been further refined. Switching the amplifier core may be, but the power supply technology remains linear, removing the risk of RF interference from this



◀ The slot-in drive is shock-resistant. Vibration-damping foils in several places demonstrate the high degree of care and fine-tuning.



◀ Questions about the concept of the N31? The complexity of the boards arranged next to each other for the analog and digital inputs and outputs demonstrates serious intent as a DAC as well as a disc-player.





◀ For bi-amping, there is a controlled pre-output (pre-out); the loudspeaker terminals jacks are „NextGens“ from WBT.

## A „strong“ appearance

The MBLs made a striking appearance in the STEREO listening room, where we hooked them up to the company's 116F radial radiator speakers. We played each unit alone for our edification against various competitors, and both proved that, whether used together or severally, they delivered the “MBL sound picture”. We love this presentation, with opulence, colourful and energetic basic tone, and sense of exuberance. In contrast to direct-radiating loudspeakers, which like to place the event directly in the listening room, MBL's omnidirectional models project the scale of the recording space into the room: whether the atmosphere of a recording is that of a hall or a jazz cellar, this system recreates it fully.

Jürgen Reis, who has been developing the MBL products since 1983 and now has a wealth of experience in terms of sonic finesse, has equipped the 116F with a pair of 14cm bass units and two mechanically linked aluminium-cone 21cm subwoofers, meaning the speaker produces a lot of energy.

That woofers design means less of this energy is lost to resonances in the MDF enclosure, meaning that more energy is used to shift air: even though the bass

device affecting other components.

A clever counter-coupling avoids nonlinearities in the high-frequency range, which are unavoidable in connection with Class D Amps, due to the necessary output filters to match the impedance of the connected loudspeaker. Our measurements confirmed the effect of this measure.

A special feature is the ALPs potentiometer for the volume control, placed close to the inputs in the interest of shortest signal paths. Unlike most of his development colleagues, Reis does not rely on resistor ladders, but is rather a supporter of conventional potentiometers, to which he attributes a particular sonority and natural grace in the middle area. In the N51,

## TEST-KOMPONENTEN

CD PLAYER / D / A converter:  
T + A MP3000HV

D / A-CONVERTERS: Brinkmann  
Nyquist, MBL1511F

FULL REF.: T + A PA3100HV

PREPARATIONS: Accustic Arts  
Tube Preamp II-MK2, Amp II-MK3

LOUDSPEAKER: B & W 802 D3,  
Dynaudio Contour 60, MBL 116F

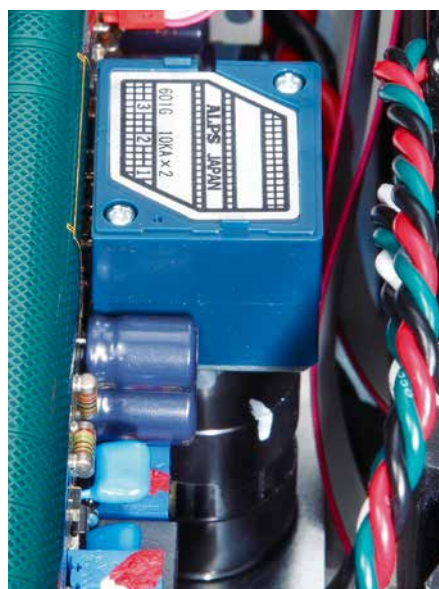
Cables: HMS Granfinale Jubilee  
(NF), In-Acoustics LS-2404 (LS),  
Purist Audio Des. Genesis (NF+LS)

the potentiometer it is moved by the adjacent stepping motor and is so precise (see measured values) that the chip solution isn't missed.

The N51 also offers „Unity Gain, ensuring that, with the N31 connected, its signal at the zero-decibel mark fully exploits the considerable power of the amp already smoothly

starting clipping. If you need more amplification in the case of a low average level of the music, „Unity Gain“ simply switches off.

Another nice touch, and one often overlooked but essential for the best sound, are the vibration-protected „NextGen“ connections found here, from Essen company WBT.



The hefty transformer is located in the front part of the amp, while the powerful, efficient switching amplifier stages on the cooling ribs behind it require little space. ▶

◀ Close to the inputs is the classic carbon-tracked ALPs volume potentiometer, which is moved by the stepper motor.



section is supported with a rearward reflex opening port, the housing remains surprisingly quiet, and you can hardly feel movement under the fingers.

However, on our usual measurement, which only takes direct sound into account, the 116F sensitivity hardly exceeds 80 decibels (see diagrams), so it needs 10 times as much power as the (admittedly high-sensitivity) Focal Maestro Utopia.

## From the fullness into the full

Neither the player/DAC nor the amp – nor indeed the two combined – have the smoothest sound, yet they touch the audiophile nerve with their fluent timing, a full yet flexible bass and plenty of musical tension, all the while seeming relaxed and totally in control.

The N51 certainly helps, with considerable reserves it can mobilize with lightning speed, and both devices – which can be connected via „Smart Link“, which opens the door to further functions and convenience – are also meticulously refined. Combined with the high-resolution radial radiators they are able to envelop the listener in a glamorous, yet precise, sound.

There's no question: MBL's new „Noble“ set draws on an abundant sound and delivers a full experience – albeit at a luxury price. And who can argue with that?

*Matthias Böde*



▲ MBL developer Jürgen Reis with a „Noble“ set in white and chrome

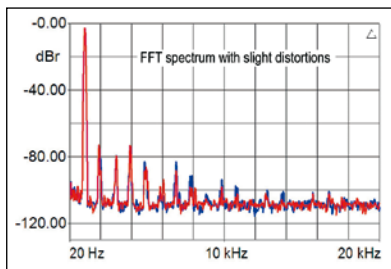
## MBL N31



At €12,000  
Dimensions: 45 x16 x46 cm (WxHxD)  
Warranty: 3 years  
Contact: MBL  
Phone: 030/23005840, www.mbl.de

The N31 is equally convincing as a DAC and a CD player, with pronounced audiophile instinct for gripping, authentic sound. High-bit PCM and DSD files are also handled well by the MBL.

### MEASUREMENT RESULTS



Quantization noise distance 0 dBFS	97 db
Output resistor cinch	100 ohm
Output voltage Cinch 0 dBFS	2.3 V
Noise distance Digital Zero	102 db
Distortion factor at-60dBFS	0.6%
Linearity at-90dBFS	0.2 db
Jitter	1.1 NS
Deviation from FS	60 ppm
Reading-in	10 s
Power consumption Stby/BTR	/20 W

**LAB COMMENTARY:** High-class values prove the technical claim of the N31. The MBL shows no weaknesses and underlines the stability of the analogue output stage in the relatively low output resistance.



### FACILITIES

Five digital inputs and three digital outputs (each light guide, symmetric, coaxial plus two USB interfaces), analog output in cinch and XLR, remote control, SmartLink connection with advanced comfort functions, German user manual

### STEREO-TEST

SOUND LEVEL CD	100%
SOUND LEVEL DAC	98%

PREIS/LEISTUNG



**VERY GOOD**

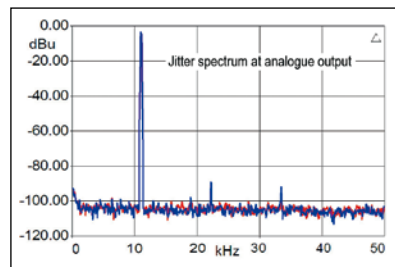
## MBL N51



At €13,800  
Dimensions: 45 x16 x49 cm (WxHxD)  
Warranty: 3 years  
Contact: MBL  
Phone: 030/23005840, www.mbl.de

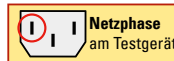
The innovative integrated amplifier captivates with a noble look and is brimming with power. But it's no sledgehammer, but rather a paragon of behavior, with the sense of bright colors and potency in the background, making it a fine partner for any type of loudspeaker.

### MEASUREMENT RESULTS



Continuous power (8 ohm/4ohm)	232 w/435 W
KLIRRF. At 50MW/5w/1db pmax	0.008%/0.01%/0.01%
Intermod. 50MW/5w/1db pmax	0.006%/0.004%/0.4%
Noise distance at 50MW/5w	79.1 db/97.7 dB
Damping factor. At 4 ohm (63hz/1khz/14kHz)	100/90/62
Upper cut-off frequency (-3db/4ohm)	52 kHz
Talk about Line 1 > Line 2	73.1 db
Synchronization error volume at-60db	0.1 db
Stereo channel separation at 10khz	75.1 db
Power consumption standby	0.8 W
Power Consumption Idle	50

**LAB COMMENTARY:** Rich output is paired with low distortions and high interference resistance, while also positive are the effective channel separation as well as the precise tracking of the volume control.



### FACILITIES

Six high-level inputs (5 x Cinch/1 x XLR), including a „processor“ looping option for AV applications, fixed and variable outputs, „SmartLink“ connection, remote control, German manual.

### STEREO-TEST

SOUND LEVEL	98%
-------------	-----

PREIS/LEISTUNG



**VERY GOOD**