## U-AUDIO | SEPTEMBER 2019

# JÜRGEN REIS INTERVIEWED IN TAIWAN ON THE N31 ROON MODULE

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Jürgen Reis interviewed at the Taipei Audio Show 2019

Jürgen Reis, MBL's chief R&D engineer from Germany, participates in the Taipei Audio Fair every year, where he teaches us about his products! Reis began the interview by saying, "MBL is 40 years old! And I've been with the company 37 years." The chief R&D engineer has been working at MBL for so long, no wonder MBL's voice has been so good over the years! The stability of the R&D team is the key to MBL's great sound.

#### The Roon module tailored to the N31

Reis speaks Chinese, the atmosphere is a joyful one, yet the focus of the interview is of course on MBL. The new product MBL has brought out is the N31 Roon Module, which at first might seem to be a very simple device, but it's actually very difficult for this module to do everything. Ahead of the N31 Roon module release, MBL had launched the 1611 Roon module, and my thought was the two modules would be the same. But when I asked Reis, I realized just how serious MBL is about upgrading its digital music streaming feature. The 1611 Roon module is similar in function to the N31 Roon module, but the latter is designed as two separate modules for two separate applications in order to be tailored to this component. Reis said the N31 Roon module offers a two-part upgrade. The first part adds the Roon digital streaming capability to the N31 whereby MBL enhances ease of use, while the second part is an improvement in audio quality during digital streaming.



The N31 Roon input module board

#### Supports Roon Ready feature

Let's start with the easy part. The N31 Roon module is integrated with the original N31 control functions and soft key activated features. With Roon, you can choose from a variety of digital music streaming services over the Internet, as well as rely on Roon to consolidate your music database. When an CD is entered or a separate digital file is sourced through USB input, or S/PDIF, Roon will pause immediately. With the Roon file, concerts can then continue to play from the second it paused, making it very easy to use. The N31 Roon module also supports Shairport allowing users to play wirelessly from their handheld devices. The N31 Roon module is much more convenient to use in this way.

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N31 CD-DAC in white/palinux finish

In addition to the friendly and easy-to-use interface of the N31 Roon module, Reis said that "the most difficult thing about upgrading the digital streaming module is user-friendliness. The key to this is the design of the Master Clock and the power supply. According to Reis, the N31 Roon module uses asynchronous transmission and adds a digital buffer to allow digital streaming over the network. Music information can be recalibrated using the master clock of the N31 Roon module and then sent to the DAC for decoding.

Reis stated, "in order to get the time correction right, not only must the master clock be accurate, but more importantly, the power supply has to be independent of the network stream, the DAC and the master clock, and the function board that controls the digital control screen on the front panel, must all be powered independently of each other so that they don't interfere with one another, which is the most difficult part of the design".

Additional note: "The master clock determines the speed of the data read out from the Roon server, and also latches / re-clocks the digital audio data that reaches the DAC chip input in order to get rid of any remaining jitter and deliver the cleanest timing possible. The cleaner the timing, the lower the jitter, the more natural the sound and the sound stage" – Jürgen Reis The answer is a DC/DC converter, a device that utilizes DC to DC conversion voltages, which allows each part tof the network to be powered completely independently, according to the functional requirements of each circuit.



Jürgen Reis attending the Taipei Audio Show August 2019

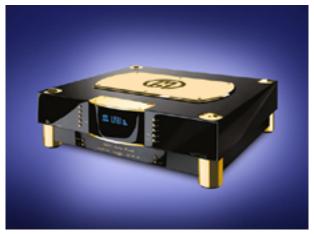
#### Fine-tuning the sound characteristics of the N31

The N31 Roon module offers digital music streaming upgrades similar to the previous 1611 Roon module from MBL. Reis said that because the N31 is not the same architecture as the 1611, the Roon input module is a completely different design. The sound performance of the N31 is somewhat different, so you can't use the same 1611 Roon module. The N31 Roon module is specifically designed to match the sound quality, timbre and characteristics of the N31.

Additional note: "The material of the PCB (printed circuit board) and some resistors and capacitors have been fine tuned to the sound of the N31 and to the sound of the 1611 and so are different to each other. I have listened to a large number of different PCB materials in order to find and choose exact the one, that matches the target sound" – Jürgen Reis



Just by looking at the contents that make up the Upgrade Kit, the 1611 Roon module is visually quite different from the N31 Roon Module. Reis said that the 1611 Roon Input Module Upgrade Kit includes the Roon Input Module and a power supply upgrade module. Whereas with the N31 Roon Upgrade Kit there are more elements that need upgrading. With this latest kit you get a N31 Roon Input Module, a digital control board positioned behind the screen display for album artwork and manual function use through the soft keys (next track, pause, etc.), some additional cables and adapters.



Reference Line 1611F DAC

Finally, Reis adds that the N31 Roon module also has a unique feature called "digitally controlled analog tone control," which Reis emphasizes is purely an analog volume control, but with digital control with no loss of digital music resolution, which is also unique to MBL.

#### Super honest upgrade pricing and service

MBL has gone from 1611 Roon modules to the N31 Roon module we saw at this year's show. "All in all, it has taken me more than three years to develop. During this time, I presented test modules at the Munich Audio Show" How much does a digital music streaming upgrade module cost? The previous 1611 upgrade module was less than €1,000, the N31 may cost about the same, but this is not official yet. Compare the price of the 1611 with the price of the N31 machine itself and the amount of R&D effort MBL has put into it. The Roon upgrade service is really a sincere and honest effort to keep the consumer's audio investment in MBL products up to date, and to make it last a long time without a hefty price tag. In the end, MBL and its distributors may be selling one less component because they upgraded the unit with a module to greatly enhance the functionality of the N31. With such a sincere commitment to consumers, MBL's upgraded services are sure to significantly increase brand loyalty.

Watch video of interview with Jürgen Reis with first part in Mandarin and second part in English here <u>https://www.youtube.com/watch?time\_contin-</u> ue=27&v=WPhtDX2DBnl&feature=emb\_logo

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