Hi-Tech in Slim-Design

The Korean Manufacturer Waversa Supplies WSlim LITE a streaming Amplifier with a super slim housing. In addition, There is a particular high demand on the high sound quality

It is a real eye-catcher, and so because you hardly notice it. The WSlim LITE offers a complete streaming system that requires no visible hardware other than the unit, no bigger than a Macbook Pro, and smart phone for operations. In addition, Waversa uses the latest DSP-technology, to generate a defined harmonic spectrum that simulates the sound of tubes. Of 1940's era Western electric 300b tube.

The Korean WSlim LITE is available for 1750 Euro. First of all, let's talk about the housing. It really does seem extraordinarily flat and, measuring two centimeters in height, which is just as much as the diameter of a ten-cent coin. Fully milled from a solid aluminium block, the chasis acts as a heatsink and vibration dampener while maintaining a sleek m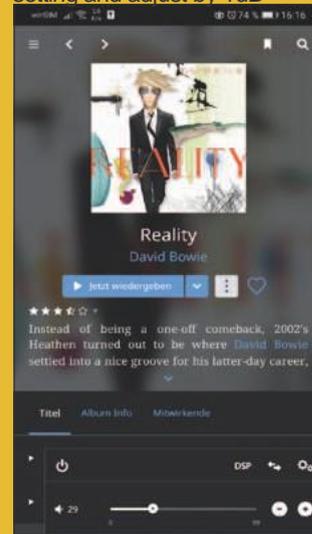odern look. There are no ventilation slots, and Waversa used the entire surface of the housing to dissipate heat from the power amplifier. This passive cooling, in other words, is made possible by the use of digital Class D power amplifiers, which in principle offer a higher efficiency thus operate inherently cooler than their analog counterparts.

Furthermore, the slim dimensions of WSlim LITE and especially its flat top surface are possible because the obligatory heat dissipation components of analog amplifiers are eliminated. In addition, to further reduce internal heat and electrical noise, Waversa used an external standard switch mode power supply.

Network convenience w i t h OpenHome and Roon

The supply of network sources including the usual music services can be provided via DLNA, Roon, Airplay or a last but not least WNDR-a new proprietary unbuffered protocol demonstrating a strong immunity to jitter. For UPnP, the WSlim LITE acts as an UPnP renderer, controlled by an UPnP control point that receives its data from an UPnP server (installed on NAS, for example). The BubbleUPnP app, installed on a smartphone/tablet, can be used as a control point. This allows you to use a connected USB hard drive, which then appears as a server with the Waversa. The digital volume adjustment maintains full native resolution regardless of setting and adjust by 1dB increments. This is also the way it works in the Roon system. The reaction is fast, averaging merely two seconds. Bubble UPnP also allows multi-room operation via OpenHome.

Roon - the Rolls Royce

In contrast to the (almost) free BubbleUPnP, Roon costs 120 USD per year and 700 USD per lifetime. Nevertheless, the system leaves the customer's every wish fulfilled and offers an exemplary wealth of information as well as perfect sound and network characteristics. However, a server for the Roon Core is required, so that the WSlim LITE is perfectly integrated into any system as a Roon-Ready component.

There isn't much room for all the usual information to display in this design, but the manufacturer has embedded the display in the housing in a very appealing way. The information that is enabled by this is, of course, extremely puristic, which also has an effect on the operating options. Only the volume and program sources are displayed.

A good thing is that a discreet, colour-changing bar indicates whether the network-based sources are in contact with their server and if the selected source is actively playing For the conventional inputs, the new Waversa offers SPDIF optical, coaxial and USB

Analogue inputs have been eliminated, but an FM tuner is included with the possibility to store 16 stations automatically. The WSlim LITE also accepts music via Blue- tooth, using the lossless apt-X codec. It is better than the SBC standard codec but still with reduced (16 bit, 48Khz).

However, using the smartphone as a renderer controller via UPnP/DLNA, files are processed in their native formats.

The six touch buttons in the top panel are very discreet and straightforward and can be used to control the functions mentioned above.

And this is exactly why the interior of the WSlim LITE appears extremely tidy. The digital output is mounted under the board and is thermally connected to the noble, solid aluminium housing. This acts as a passive heat sink.

The provided Apple mini remote control, with its aluminium case is adapted to this high quality device. The most important program sources for a streamer come from the network or from connected mass storage. Regarding the operation with a comfortable display, nothing

Also most of the usual formats are supported, including DSD256. For the amplifier sector Waversa uses the brand new, self-developed audio processor

This simulates the typical tube sound, whereby the sound of the Western Electric 300B tube from the 1940s served as a model. From a metrological point of view

With the help of modern digital technology the Waversa streaming amp generates Tube feeling in the smallest space.

this leads to a higher distortion factor, so to eliminate this artifact the output power determined under normal measurement conditions is lowered.

works without a smartphone or tablet. To better understand these features of the WSlim LITE, please read our box.

Network access is via LAN and WLAN, the latter requires the purchase of a WLAN USB stick and temporary LAN access for setup. The key figures for the achievement of high sound quality are: 24/384 for USB, 24/192 dig. coax for PCM and FLAC.

WAP/X Type3. The host process ARM Cortex-A7 and Realtek amplifier ICs serve as the basis. Each IC works with four amplifiers, a total of four ICs are used. The special feature is now controlled by the WAP processor, which initially sets the PCM signal to 24 bit/768 kHz and then adds even numbers of harmonic harmonics to the music using a special algorithm.

Sound with tube touch

In the hearing test, the WSlim LITE revealed quite powerful and dynamic presentation despite its not excessive output power. For example the contoured basses were very nice, especially the guitar and vocals were warm and soft, with a certain touch of tube-feeling.

Reinhard Paprotka ■

The housing is only 2 centimeters in height and without feet.. Next to the loudspeaker outputs are Connectors for LAN, USB host, USB input, SPDIF optical and coaxial, FM and BT antennas.

Waversa
WSlim LITE
1750 Euro

Distribution: ATR – Audio Trade
Contact: 0208 / 88 26 60
www.audiotra.de

Dimensions (BxHxT): 30 × 3 × 22 cm
Weight: 4 kg

Measurement diagrams

Frequency response
High: 192 kHz; 8/4/2 Ω, Level drop 2 Ω;
Below: 44,1/96 kHz; 4 Ω, Selected up to 45 kHz

Distortion analysis k2 to k5 vs. power Increasing, somewhat emphasized distortion spectrum with high-frequency components

Practice and compatibility

Amplifier Compatibility Diagram
Rather moderate power, load stable, no problems with different amplifier types. Boxing expected

Voltage 8Ω ▮▮▮▮▮ 15,6 V
Frequency ▮▮▮▮ 1,3 dB
Power 3Ω ▮▮▮▮ 3,7 A

measured values

Sinus power (1 kHz, k = 1%)
an 8 Ω	32 Watt
an 4 Ω	42 Watt

Music power (60Hz-Burst)
an 8 Ω	31 Watt
an 4 Ω	54 Watt

Signal-to-noise ratio
Digital (96/24, 0 dBFS, 10V)	103 dB

Consumption
Standby/operation	2,3/9 Watt

Rating

Conclusion: The WSlim LITE is a small and fine streaming amplifier with state-of-the-art technology. The output power is sufficient for most applications, best four-ohm speakers are suitable. This results in a warm, mellow sound, which has a certain tube character.

values	Practice	Valency
6	6	9

Test rating

Sound	(analog/Streaming/USB)	–/51/52

0 10 20 30 40 50 60 70

Overall evaluation	73 Points
Price/Performance	Excellent