

# Lindemann

## Musicbook 25 + 50

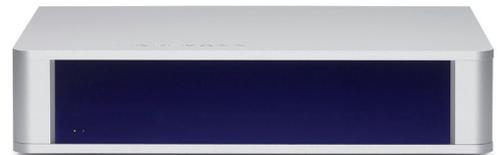
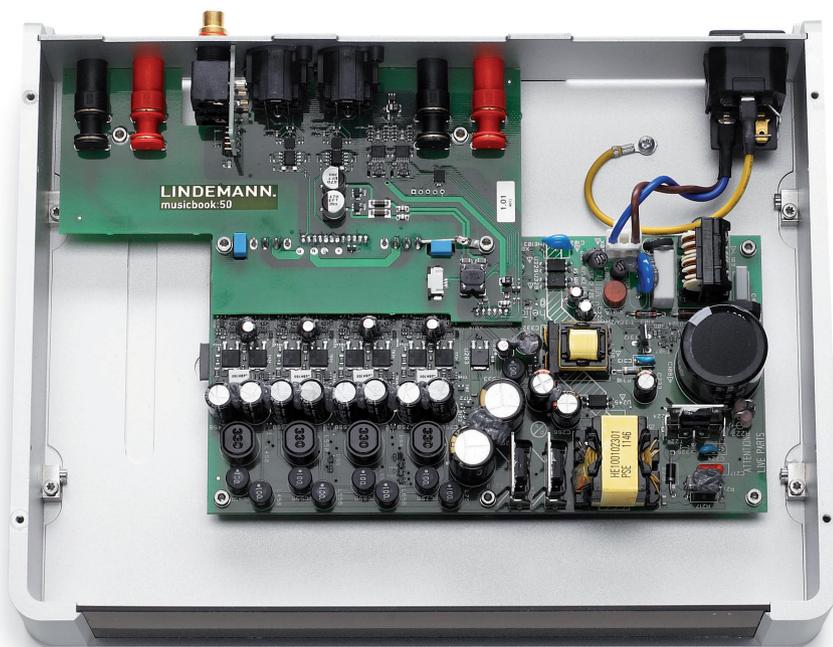
If your name happens to be Lindemann, but you are neither a retiree nor the lottery winner of your seed capital for your own menswear boutique in Wuppertal like in the legendary sketch by the late German comedian Loriot, you need to go the extra mile to get your personal business up and running. Especially if you are not into fashion, but follow a serious sound and design ambition loosely based on Einstein: "Everything should be made as simple as possible, but not simpler." Sound tinkerer Norbert Lindemann achieved this success when launching his Amp 1, an integrated amplifier, and the Box 1 – a loudspeaker, as you will have guessed – back in 1993. The man from Bavaria may have been bravely encouraged by the

fact that he wouldn't have to move to Wuppertal for building his career.

Since the 1990s consumer electronics have undergone profound changes. Behind the computers we no longer see only nerds, but music fans who quite often file their entire music collection on them. Especially for mid-sized companies from Germany, where programmers and chip designers are not as thick on the ground as in California's Silicon Valley, this radical change poses a big challenge. In 2007 Lindemann still launched, among other things, two SACD players simply to turn towards the USB-DAC subject in the following year. This long line of products now culminates in the Musicbook series with Lindemann also

mixing in a touch of magic. Right on time before the competition would share the whole cake among themselves, Lindemann also gives an answer to the beatific streaming issue.

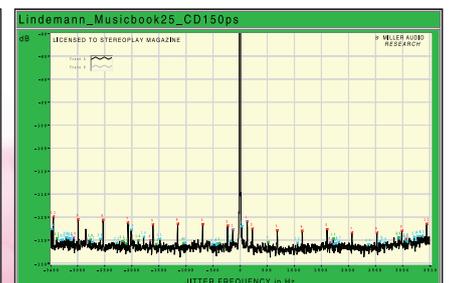
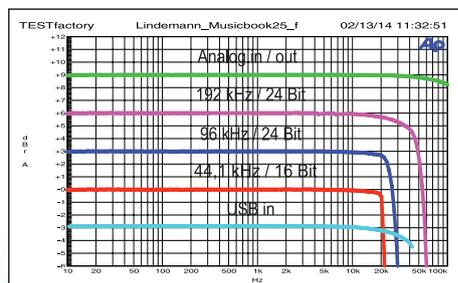
This is truly awesome. At a time when quite some fans might have been wondering "when will it finally come out?," the German manufacturer does not only present one, but two streamers plus a stereo power amp with a radically new look. That's just like in a western movie when the entire cavalry rides in at the very last moment with drums beating and trumpets sounding, however not in such a rustic style. The modern, shapely design with its consistent sobriety could even win over die-hard anglophiles to its side and poach beyond its home range on the competition's hunting ground with its typically German quality of material and workmanship. But a brand like Lindemann won't get away with a pure design concept. For a happy end one cannot do without exquisite, sound sti-

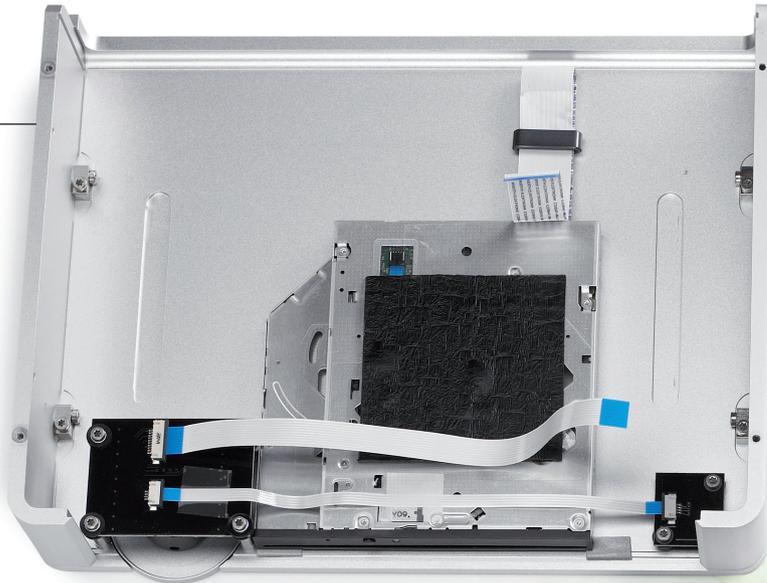


**AUDIO BOOK:** Lindemann's fully balanced layout for the stereo switching power amp follows Putzeys' UCD (Universal Class D) concept and is minimalist, yet ultra modern. The amp has only a mains switch on the back, standby is automatically controlled.

## MEASURING LAB LINDEMANN MUSICBOOK 25 / MUSICBOOK 50

The Musicbook 25 shows extremely flat and broadband frequency response diagrams, especially for the analog input that reaches 100 kHz. Noise is no issue (107/109 dB RCA/XLR). Jitter is virtually not present, either. 150 ps for CD and 175 ps for USB are dreamlike specs. The distortion values are extremely low, however, their distribution is not quite optimal. Another point worth mentioning is the standby power consumption of 0.2 watts which is very low for this category.





**HARDCOVER:** Right under the 6.5 mm thick aluminum cover sit the pulse generator for the analog (!) volume control and the encapsulated TEAC CD drive. The lower part of the housing is occupied by the switching power supply (left), network board (center) and the full-fledged preamp.



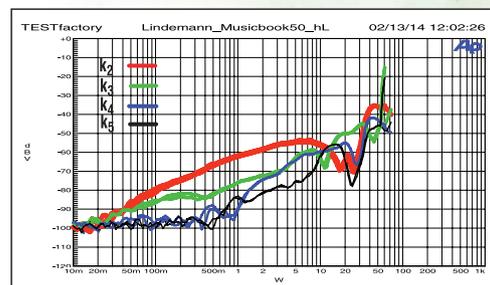
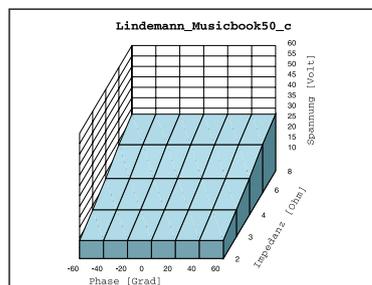
mutating solutions.

And of these the UPnP/DLNA-compliant, LAN or WLAN networkable streamer offers a lot. After all it doesn't serve as a bridge head to besiege his owner's living room with a whole bunch of midi format components in the end. Compact is supposed to stay compact, also in total. Therefore Lindemann simply packed the preamp including an ambitious class A headphone output and a serious CD player with a slot drive from TEAC into the streamer's solid, perfectly crafted aluminum housing. Thus the dedicated purist will only need a pair of active speakers to take his entire hifi chain across the Wupper [i.e. get it running]. Here it comes in handy that there is also a balanced XLR preamp output on board next to the RCA sockets which allows to bridge even long cable paths for the AF signal without interference problems and sound losses. But Lindemann offers no active speakers, yet passive ones with cryogenically treated copper termi-

nals. A must-have for all fans of Austin Powers movies and science-fiction novels! Those who need an amplifier for their conventional or unconventional passive speakers will find the answer in the Musicbook 50 stereo power amp

which is a perfect match both in design and function. It also offers balanced and unbalanced inputs and turns on or off automatically, just as required. So its smooth faceplate is not blemished by a power knob. Yes, we soon realize: some-

Contrary to most class D amps the frequency response diagrams show hardly any reaction to the impedance of the connected load. The stability cube drops off towards low impedances, the amp turned itself off at  $2 \times 79 \text{ W}$  into  $4 \Omega$ , at  $8 \text{ ohms}$  it reached  $2 \times 92 \text{ W}$ . The result is an accordingly low AK [AUDIO key figure] of 53





**BACK OF BOOK:** The Musicbook 25 is a complete preamp with analog and digital connections. The power amp offers both RCA and XLR inputs.

**POWER BOOK:** Gold-plated, antimagnetic RCA sockets and balanced XLR inputs and a non-magnetic aluminum housing also for the amp.



body has taken a good deal of time here and done his homework accordingly well.

Sure, a look inside the flawlessly built little power amp reveals no distinct chin-ups to approach the topic of amplification. The input board with its directly mounted connectors is almost as big as the whole class D power amp together with its switching power supply. But rather than fathoming new technical limits, it was obviously more about creating a feasible and perfectly shaped convenience solution congenial to the super hero of the new book series, the Musicbook 25. A contemporary amplifier that doesn't waste oodles of power neither in standby nor in idle mode. A faithful companion that pumps almost 100 watts into 8 ohm speakers, but pulls the ripcord at 4 ohms via protection circuit already before reaching the 80 watts limit (something which also happened several times during the listening check). Hence the vigorous 50 doesn't quite commend itself for a second lead role. It's rather suitable as the extremely smart Musicbook hero's best friend, assisting it in a dependable manner with authentic timbres to fulfill its mission in the test room. And this demands to nix everything which had firmly established the Lindemann brand in our conscience

as a keeper of historical hifi virtues and less so as a bold conqueror of new sonic terrain.

Furthermore, Lindemann takes a consistently systematic approach. Since the high frequencies, which in digital technology are particularly associated with high resolution, produce jitter (distortion inducing clock fluctuations) as well as harmful interferences between the modules, a whole package of perfectly coordinated measures comes into play. The CD player reads the data with high speed into a buffer memory from which they are called up again by the converter using an extremely high precision clock. Six-layer PCBs keep the signal paths short in the fully balanced streaming CD preamp. Above all the utterly delicate lines between the central clock generator, an ultra stable master clock, and the DSP or converter sections were designed in a balanced, impedance optimized way. After all Lindemann pushes the re-sampling into heady heights. Depending on the input signal, which may have up to 24 bits /192 kHz, the audio data are upscaled to 32 bits at a sampling rate of 352.8 or 384 kHz. This is eight times the 44.1 kHz or 48 kHz sampling rate respectively, for Lindemann

avoids odd-numbered signal conversions, which go easy on the measuring data, but are mostly unfavorable to the sound. According to the efforts made the jitter values are a poster child for the Musicbook 25 (see lab). The D/A conversion uses a phase optimized filter and two high-grade 8742 Wolfson converters run in mono differential mode.

## THESE ALBUMS WERE LISTENED TO

### STEFAN SCHICKEDANZ: OPERATION BRUNHILDE

Why not play an audio book on the Musicbook – especially if it was written by myself? But beware: it's kinky and ironic!

### SIMPLY RED: PICTURE BOOK

In the CD days this album belonged to the testers' standard repertoire from Stuttgart to Hannover. Still appealing in terms of dynamics and atmosphere.



A lot of effort also went into the new, quick-response Musicbook app which proves to be a sophisticated alternative to the, at first glance, somewhat confusing remote control. Special highlight: it features a numeric keypad for the CD player to give an easy access to track numbers beyond 9. Equally practical: our iPhone was shown on the list of available audio servers, the songs could be played from the app without further ado.

The "lecture" revealed a veritable book tip then. Hardly ever did the editors experience a chain that, irrespective of price or source, was matched in such a sublimely natural way. Even after long hours of listening to CDs or HD files we could discern neither annoying, over-analytical harshnesses nor sweet-talking mumble, but only wonderfully clear, relaxed sound. Owing to the rarely heard minimal coloring, the silkily resolved, yet never harsh highs and the controlled, nuanced bass one can enjoy endless fun with this two-volume serial novel (the duo being rated as a "full system" at 115 points) with no fatigue. Those who prefer an earthier character, should link the two devices via XLR. And lovers of slightly crisper highs can bet on RCA. Upon careful examination of both episodes, the streaming preamp proved to be

a potential bestseller in its genre. Its meticulously researched, conclusive and three-dimensional depiction of space and time is without equal. The amp, a Pulitzer Prize contender in the category of tonality, was more of a lightweight oeuvre in terms of bass and coarse dynamics. Nonetheless: hardly beatable as a team, these two imaginative new Ebooks from Bavaria wake up the boy in the man.



**PROFILE**

	<b>LINDEMANN MUSICBOOK 25</b>
Distributor	Lindemann Audiotechnik 0 89 / 891 36 79 0
www.	<a href="http://lindemann-audio.de">lindemann-audio.de</a>
Warranty	2 years
Dimensions W x H x D	28.5 x 6.5 x 22.5 cm [11.2 x 2.6 x 8.9 in]
Weight	3.5 kg [7.7 lbs]

**CONNECTIONS**

CD/DVD/BD drive	- / - / -
Analog In/Out	2 / 1 Cinch + 1 XLR
USB	1 x Typ A (Host/Android)
Digital In coax/optical	2 / 2
Digital Out coax/optical	1 / 1
Network	WLAN 802.11 b/g/n, LAN

**FUNCTIONS**

Display / OSD	• (OLED) / -
Fast forward/rewind	•
Extended playlists (queue)	•
Bluetooth/airplay	- / -
Cover display	•
Radio FM/DAB	- / -
Internet radio/provider	• / vTuner
Formats	FLAC, WAV, MP3, AAC, ALAC, AIFF
Required server	UPnP/DLNA
Gapless	•
Global control via App	• (Musicbook, 0€)
... transmits complete playlists	•
Max. sampling rate	192kHz

**AUDIOGRAM**

	<ul style="list-style-type: none"> <li>• Quotes any poetry fully without the slightest mistake. Presuppositionless.</li> <li>• Suboptimal adaptation of the read-put level via app</li> </ul>
Sound lossless	130
Operation	very good
Workmanship	superb

<b>SONIC VERDICT</b>	<b>130 POINTS</b>
<b>PRICE/PERFORMANCE</b>	<b>SUPERB</b>



**BOOKS ON DEMAND:** The remote is very fancy, but not nearly as intuitional and practical as the app that's available for iOS and Android. As a matter of principle – and because of a specific weak point of the app – it is superior only for controlling the volume level.



**PROFILE POWER AMPS**

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www.	<a href="http://lindemann-audio.de">lindemann-audio.de</a>
Warranty	2 years
Dimensions W x H x D	28.5 x 6.5 x 22.5 cm [11.2 x 2.6 x 8.9 in]
Weight	3.1 kg [6.8 lbs]

**FEATURES**

Inputs Cinch / XLR	1 / 1
Level controls	-
Channels	2
Remote turn-on	-
Power indicator	-
Special features	-

**AUDIOGRAM**

	<ul style="list-style-type: none"> <li>• Purest standard language with no slang, exemplary reading flow.</li> <li>• No action thriller, censors scenes of violence.</li> </ul>
Sound RCA	85
Sound XLR	85
Features	good
Features	very good
Workmanship	very good

<b>SONIC VERDICT</b>	<b>85 POINTS</b>
<b>PRICE/PERFORMANCE</b>	<b>VERY GOOD</b>

**FAZIT**



**Stefan Schickedanz**  
AUDIO-editor

**To my mind the new design is among the most beautiful and autonomous from Germany. And on top it's even practice-oriented. Given its little space requirement, high versatility and not least its great handling via the new Musicbook app, the Lindemann solution is a highlight for all who want to upgrade to network and streaming without sacrificing old values like CD collection and audiophile virtues.**