

Ask us about the new:

POWERHOUSE



- Simply **THE PowerDSP unit!**
- Excessive performance headroom:
6x **500W NCore** and 2x **1200W NCore** on +/-85V rails, all 2Ohms capable ! Woofer peak current up to 38A (!)
- Quiet, fan-less design. **Massive full aluminum** case with powerful heatsinks, ca. 448 x 399 x 141mm. Remote volume control.
- Professional multichannel output with, high current SpeakON plugs:
Two SpeakONs replace 16 (!) “banana” plugs
- Internal signal routing strictly balanced. Two High End DSPs, carefully designed clock-, DAC- and analogue output stages.
Optimized power supply, upgrade with selected XOs, etc.
- LXspeaker owners get preloaded filter sets (LXmini /studio/521.4)
- IN: analog balanced XLR, digital spdif RCA spdif opt, AES/EBU as XLR & RJ45. USB input for **individual filter**, gain, delay and inv. **programming!**
- Free PC filter designer for **your individual speaker project** (eg Magnepan).
- Available worldwide Q1 2017 by www.magicLX521.com

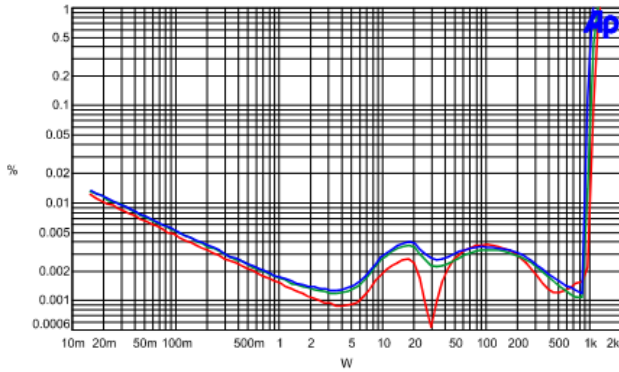
Power supply = SMPS1200, Load=4Ω, MBW=20kHz, Source imp=40Ω ,unless otherwise noted

Item	Symbol	Min	Typ	Max	Unit	Notes
Rated Output Power	P_R	1200			W	THD=1%, Load=2Ω
		700			W	THD=1%, Load=4Ω
		400			W	THD=1%, Load=8Ω
Distortion	THD+N, IMD ¹⁾			0.004	%	20Hz<f<20kHz ¹⁾ , 4Ω Pout<P _R /2
				0.001	%	20Hz<f<20kHz Pout=1W
Output noise	U_N		7	8	μV	Unwtd, unbuffered
			20	28		Unwtd, standard buffer
Signal-to-noise ratio (unweighted, add 2dB for A-weighted)	SNR		137		dB	P _R , unbuffered
			128			P _R , buffered
			112			1W 8Ω, unbuffered
			103			1W 8Ω, buffered
Output Impedance	Z_{OUT}			2	mΩ	f<1kHz
				3	mΩ	f<20kHz
Power Bandwidth	PBW	35			kHz	²⁾
Frequency Response		0		50	kHz	+0/-3dB. All loads.
Voltage Gain	A_V	27.6	27.8	28	dB	Standard buffer
		11.4	11.6	11.8		Unbuffered
Supply Ripple Rejection	PSRR	75	80		dB	Either rail, f<1kHz.
Recommended headroom for external buffers		16	18.6		V _{rms}	
Efficiency	η		93		%	Full power
Idle Losses	P_0		15	17	W	
Standby Current	I_{STBY}		tdb		mA	Positive rail
			tdb			Negative rail
Current Limit		34	38	40	A	Hiccup mode after 200ms limiting

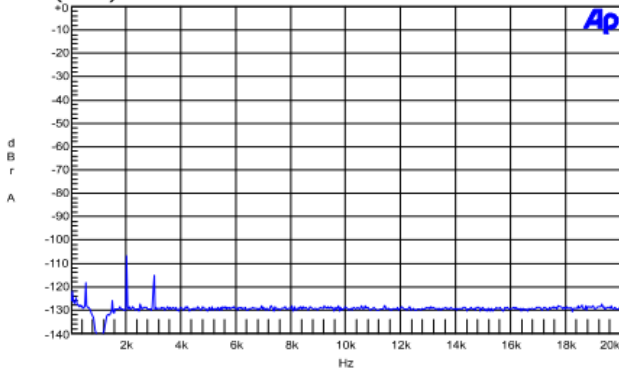
Note 1: At higher audio frequencies there are not enough harmonics left in the audio band to make a meaningful THD measurement. High frequency distortion is therefore determined using a 18.5kHz+19.5kHz 1:1 two-tone IMD test.

Note 2: Dielectric losses in the output capacitor limit long term (>30s) full-power bandwidth to 15kHz.

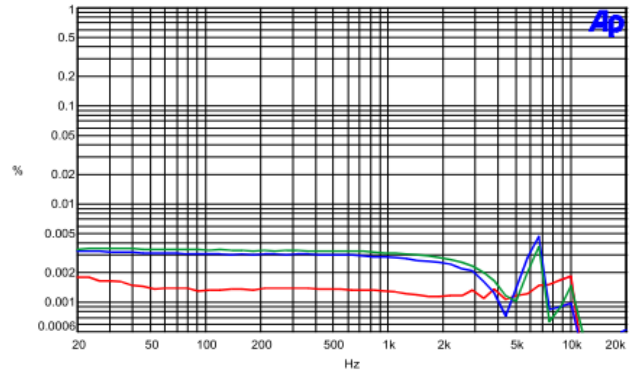
10.4 Large signal tests (2Ω)



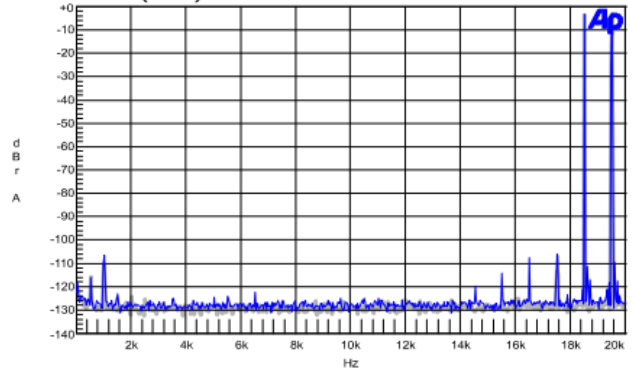
THD vs power at 100Hz (blue), 1kHz (green) and 6kHz (red)



Distortion residual at 1W, 1kHz.



THD vs frequency at 10W (blue), 100W (green) and 500W (red)



IMD spectrum at 18.5kHz+19.5kHz, 100W+100W. Peak voltage corresponds to a 400W sine. Grey background = test instrument.