

LD1404

High Efficiency 2 Channels Amplifier for Professional Applications



PRODUCT DESCRIPTION

The Powersoft LD1404 is a professional power amplifier designed to meet the most stringent requirements of professional users in sound reinforcement and professional fixed installations.

Designed by Powersoft R&D team the LD1404 is exclusively built in Italy with internal components selected for premium quality and proven durability.

Each modular subassembly is pre-tested, and the assembled LD1404 receives a rigorous test for total quality control.

Powersoft bridgeable switch mode fixed frequency class D patented outputs provide high quality sound, good damping factor and cooler circuits for stable performances over time and longer amplifier life.

Optional plug-in DSP externally programmable with 2 inputs and 3 outputs.

Optional TU4 one rack unit 4 channel transformer output module for constant voltage used.

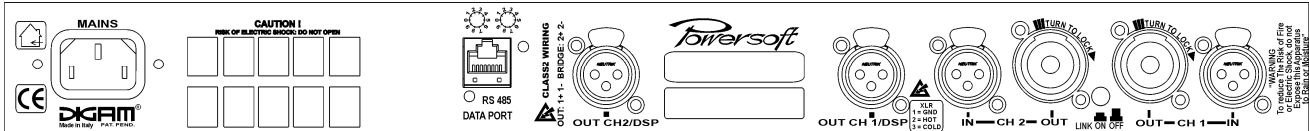
The Powersoft LD1404 is CE, CSA and KETI approved.

LD1404 FEATURES

- Switch mode power supply with 115/230V selectable range and up to 290V tolerant
- Fixed frequency switch mode output
- Patented output filter with ripple cancellation network
- Comprehensive front panel indicators
- Neutrik® XLR balanced inputs with loop thru XLR and Speakon® outputs connectors
- Fully protected circuit design with:
 - AC protection: shut down power supply when AC mains voltage is outside operating range
 - Clip limiter: prevents severely clipped waveforms from reaching loudspeakers, while still maintaining full peak power output
 - DC protection: protects against infrasonic signal at the outputs
 - VHF protections: protects the loudspeakers against non audible, strong, non musical very high frequency signals
 - Short circuit protection: protects the amplifier from short circuit or other stressful events for the output circuits with automatic protection reset
 - Thermal protection: when output rails reach 75°C (167°F) amplifier shut down outputs, they will unmute automatically when temperature will reach 65°C (149°F)
 - Long term limiter: protects the loudspeaker against steady long term rms (non audio) signals reducing maximum output.
- Temperature controlled continuous variable speed fan, front to back airflow
- Optional plug-in DSP with 24bit/48KHz AD/DA converters, 26 bit inner processing; 2 inputs, 3 outputs; 7 biquad (general Butterworth, Bessel, peaking, shelving, arbitrary IIR) filters per channel for HPF, LPF and system equalization; dual dynamic processor per channel, with arbitrary input/output curve and adjustable time constants; mixed balanced output for subwoofer drive with 12/24dB oct programmable slope and cut-off; 0 – 3.7ms variable delay per channel for speaker alignment; 105 dBA in/out (analog to analog) signal to noise ratio; 1.5 ms processing delay time.
- Recessed stepped attenuators
- Detachable AC mains cable with IEC 16A socket
- Modular construction
- Full three years warranty

POWER SPECIFICATIONS	8 Ω Stereo	4 Ω Stereo	2 Ω Stereo	8 Ω Bridged	4 Ω Bridged
EIAJ test, 1 kHz, 1% THD	2 x 360 W	2 x 700 W	NA	1 x 1400 W	NA

LD1404 Datasheet



GENERAL SPECIFICATIONS

Power requirements	AC 115/230V (+15/-25%) internally switchable, 50/60 Hz, 290V tolerant
Idle power	43 VA (0,19A @ 230V / 0,38A @ 115V)
Consumption	262 VA, 1,14A @ 230V, 2,28A @ 115V (1/8 max output power @ 4 Ohm) 481 VA, 2,09A @ 230V, 4,18A @ 115V (1/4 max output power @ 4 Ohm)
Thermal emission (1/8 power @ 4 Ω)	268 BTU/Hour
Thermal emission (1/4 power @ 4 Ω)	417 BTU/Hour
Cooling	Temperature controlled continuous variable speed fan, front to rear airflow
Environmental operating temperature	0°-45° C (32°-113° F)
Construction	1 mm (0,04 in) steel chassis, 3 mm (0,12 in) steel front panel
External dimensions	1 standard rack unit, 358mm deep (14,1 in)
Net Weight-Shipping Weight	7,3 Kg (16,1 Lbs) – 8,8 Kg (19,4 Lbs)

FRONT & REAR PANEL SPECIFICATIONS

Input connectors	Balanced Neutrik® XLR with positive on pin 2+, loop thru on XLR connectors that can be assigned with deep switches as DSP subwoofer outputs
Output connectors	Neutrik® Speakon® NL4MD (1+1- stereo, 2+2- bridge)
Power switch	Front panel push on/push off mains power switch
LED indicators	Green for signal (-24dBV) for each channel, green for amplifier ready and yellow for amplifier thermal protection, 3 led meter (2 green, 1 red) per channel output meter
Attenuators	One per channel from $-\infty$ to 0 ($-\infty$, 4, 14, 18, 24, 22, 24, 26, 28, 30, 32 dB) stepped attenuators
Power connector	IEC 16A on rear panel
Power cable	IEC16A/Schuko for EU, IEC16A/American 15A 3 pin plug
Link switch	Rear panel link switch to connect input channel 1 to input channel 2

AUDIO SPECIFICATIONS

Input impedance	10 KΩ, balanced	Slew Rate @ 8 Ω	40V/μs input filter bypassed
Input sensitivity @ 8Ω	1,34 V / 4,76 dBu	Damping factor	>200 @ 100 Hz
Gain	32dB / X40	THD+N	<0,5% from 0,1W to full power (typically <0,1%)
Frequency response	5Hz-30KHz (+/-3dB) for 1W @ 8Ω	SMPTE IMD	<0,5% from 0,1W to full power (typically <0,1%)
S/N ratio	> 105 dB/A (20-20K Hz A weighted)	DIM100 IMD	<0,02% from 0,1W to full power (typically <0,01%)
Crosstalk	>70 dB @ 1 KHz	Max Output Voltage	75 V

Powersoft reserves the right to make improvements in manufacturing or design which may affect product specifications.



Powersoft S.r.l.
Via Enrico Conti, 5 Scandicci (FI) – Italy
TEL: +39 055 7350230
FAX: +39 055 7356235
sales-audio@powersoft.it