

LD2004

High Efficiency 2 Channels Amplifier for Professional Applications



PRODUCT DESCRIPTION

The Powersoft LD2004 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 LD2004 is exclusively built in Italy with internal components selected for premium quality and proven durability.

Each modular subassembly is pre-tested, and the assembled LD2004 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.

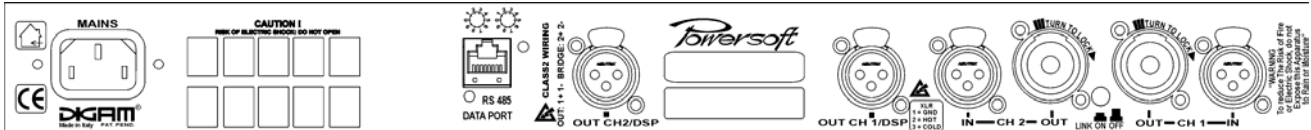
The Powersoft LD2004 is CE and KETI approved.

LD2004 FEATURES

- 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 <small>*10ms peak power</small> | 2 x 600 W | 2 x 1000 W | 2 x 600 2 x 1800* | 1 x 2000 W | 1 x 1200 1 x 3600* |

LD2004 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 | 356 VA, 1,5A @ 230V, 3,1A @ 115V (1/8 max output power @ 4 Ohm) 668 VA, 2,9A @ 230V, 5,8A @ 115V (1/4 max output power @ 4 Ohm) |
| Thermal emission (1/8 power @ 4 Ω) | 332 BTU/Hour |
| Thermal emission (1/4 power @ 4 Ω) | 546 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+ |
| 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 ($-\infty$, 10, 20, 24, 26, 28, 30, 32, 34, 36, 38 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 K Ω , balanced | Slew Rate @ 8 Ω | 20V/ μ s input filter bypassed |
| Input sensitivity @ 8Ω | 0,87 V / 1 dBu | Damping factor | >100 @ 100 Hz |
| Gain | 38dB / X80 | THD+N | <0,5% from 0,1W to full power (typically <0,1%) |
| Frequency response | 10Hz-30KHz (+/-3dB) for 1W @ 8 Ω | 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 | 97 V |

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