

MPA2-1500T is a highly flexible, powerful and cost-effective intelligent Two-Channel power amplifier delivering up to a total of 4600W @ 4 ohms. Designed to meet the most demanding portable and fixed installation sound systems, it provides a full set of value added features such as high output power, efficient cooling system, on board DSP and USB/Ethernet (USB/RS485 version available) networking for monitoring and control via PC software. **MPA2-1500T** includes a highly efficient Switch Mode Power Supply, which provides power to the output stages. The 2 output stages use the well-proven Class H circuitry, obtaining low distortion, high efficiency and also equipped with a full set of circuit protections. Furthermore an efficient Clip/Limiting process provides output monitoring to prevent speaker damage with immediate gain reduction at clip threshold. The Clip/Limiting process is also giving on Input a 12dB Headroom,

allowing to get the Amp working at Max Power on Outputs still having 12dB Gain on inputs. In addition to the efficient heat dissipation system and Over-Heat protection which themselves ensure uncompromised reliability. **MPA2-1500T** is more than just an amplifier. It is also a capable and sophisticated loudspeaker processor, thanks to its powerful 48kHz 24 Bit MARANI M704 DSP Engine and high quality 24 Bit AD/DA Converters. It offers 2 channels of crossover filters, parametric EQs, and dynamic processing alignment delay, everything needed to optimize a loudspeaker system. Particularly powerful is the RMS compression process, allowing the user to operate with a Two Band Compressor per channel. All setup parameters for input mixing, DSP features and Limiter settings are accessible on the front panel, by using either Rotary encoder push button switches along with LCD backlight display or the fully manageable remote PC software.



Features

Outstanding Performance

High power output: 2x1500W @ 80hm or 2 x 2300 W @ 4 Ohm

Highly efficient Switch-Mode Power Supply

Class H output circuitry

Full protection circuitry including Over-Current, Over/Under-Voltage, Output DC and Over-Temperature

Two XLR Link outputs for use in driving additional power amplifiers.

Excellent sonic performance with 24bit high end converters coupled with 48kHz sample rate

Top-grade DSP Engine

28 band parametric equalization per channel, each band can be switched to Bell, Low/High Shelving variable Q

3 All Pass Filter, Bypass 1st order and 2nd order

Crossover filters with slopes from 6dB/Octave up to 48dB/Octave including Butterworth, Bessel, Linkwitz-Riley

Precision dynamic range controller composed of a RMS Compressor with selectable ratio and variable knee

Adjustable Delay time up to 900 ms per channel

On each Channel is possible to use a two band RMS Compressor.

Parametric Dynamic Filter

Peak Limiter

Direct PC/Network Connection

Front panel USB connector for direct PC communications

Ethernet interfaces (RS485 version also available) for system setup, monitoring and control via manageable remote PC software

Control

Front panel interactive LCD display for local access and configuration

Front panel 5-LED level meter indicators per channel

Simultaneous control up to 32 units via PC software

Up to 20 storable user presets



Power & Amplifier Sections

Number of Channels	2
Output Modes	Stereo, Parallel-mono and Bridge-mono
Max Output Power	2 x 1500W @ 8Ω
Output Circuitry	Classe H
THD @ Rated power 4Ω (1kHz)	<0.01%
Dynamic Range	105 dB (A-weighted, AES-17 filter)
Frequency Response	20Hz - 20kHz ±0.5 dB
Damping Factor	>200 (8Ω / 1kHz input signal)
Power Supply	Switch mode power supply
Operating Range	115V / 230V - 50/60 Hz (factory selection)
Consumption / Current draw and	87.3 W / 0.82 A / 298 BTU/h (Idle)
Thermal dissipation @ 230 V	998 W / 6.64 A / 340 BTU/h (1/8 max. power@4Ω); 1920 W / 11.8 A / 6553 BTU/h (1/4 max. power@4Ω)
Protections	Over-Current, Over/Under Voltage, Output DC and Over-Temperature

Audio

Analog Input	2 x XLR electronically balanced, +12dB
Analog Output	2 x XLR electronically balanced (Link)
Input Sensitivity	0.775V, 1.2V, 1.6V
Frequency Response (DSP)	20-20KHz; -0.5dBu at 20Hz and 20kHz

DSP & Processing

DSP Engine	MARANI M704, 24bit (data) x 24 bit (coeff.)
DSP Resolution	54 bit accumulation registers, 96 bit precision on intermediate processing data
Parametric Equalization	28 filters per channel selected as Bell or Shelving
Filter Type	Bell, Low/High Shelving variable Q
Filter Gain	From -12dBu up to +12dBu by 0.5dBu resolution steps
Center Frequency	Selectable with a 1/24th of octave resolution step from 20Hz up to 20kHz
Filter Q/BW	Bell: Q from 0.5 up to 10 by 0.1 resolution steps Shelving: Q from 0.5 up to 3 by 0.1 resolution steps
Crossover section HPF/LPF	Butterworth 6/12/18/24/36/48dB per octave; Bessel 12/24dB per octave; Linkwitz-Riley 12/24/36/48dB per octave. Filter resolution 1/24th of octave
3 All Pass Filter	Frequency selectable with a 1/24th of octave resolution step from 20Hz up to 20kHz Type: Bypass, 1st Order, 2nd Order; Q: from 0.5 to 9.9 step 0.1
Dynamic Filter	Frequency selectable with a 1/24th of octave resolution step from 50Hz up to 20kHz Attenuation: from -6dB to 0dB; Q: from 0.1 to 10.0 step 0.1
RMS Compressor	Threshold from -30dBfs up to 0dBfs Attack time from 5ms up to 500ms; Release time from 40ms up to 1 sec Ratio from 2:1 to 100:1; Knee from 0%(Hard Knee) to 100% (Soft Knee) Make-Up: +/-18dBu
Peak Limiter	Threshold from -30dBfs up to 0dBfs Release time from 40ms up to 1 sec; Attack time from 1ms up to 100ms.
Delay	900 ms 21us increment/decrement steps per channel

General

Front Panel	2x24 character LCD display with blue LED backlight 5-LED meter per channel (-6dB, -3dB, 0dB, limit, clip) Red LED (Protect) per channel NAV/PM1/LEVEL-A, NAV/PM2/LEVEL-B Rotary encoder push button switches Power on/off push button switch USB type B connector
Rear Panel	2 x XLR female connector (Input) 2 x XLR male connector (Link Output) 2 x Neutrik® Speakon NL4 (Speaker Output) 2 x Binding Post output (In parallel with Speakon® connectors). 2 x EtherCon® RJ45 connector (M-LAN RS485) or Ethernet 10/100 TCP-IP (T version only) 1 x 3-position slide switch Output Mode (Stereo, Parallel, Bridge) 1 x 3-position slide switch Input Sensitivity (0.775V, 1.2V, 1.6V) AC Power Cord 16A
Dimensions	19"x 3.5"x 20.3" (483x89x515mm) 2RU
Weight, Net / Shipping	33.07 lbs (15 Kg) / 41.89 lbs (19 Kg)

Specifications subject to change without notice

Designed in Italy Assembled in China

MPA2-1500T