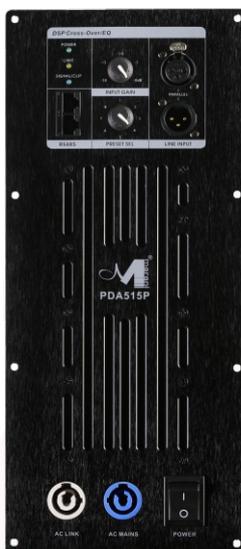


PDA515P is a complete solution dedicated to 1-way or 2-way self-powered loudspeakers. Designed to meet different applications, it provides 2 channels with output power of 500W+150W@4 Ohm. Moreover the 2 channels can be bridged into a powerful single channel in order to drive i.e. Subwoofers or Multiple Ways Cabinets with Passive Xovers. In addition it offers a full set of added value features such as on board DSP and RS485 connection for monitoring and control via dedicated PC software. To guarantee maximum reliability, the **PDA515P** includes a highly efficient universal switch mode power supply with PFC (Power Factor Correction) which provides power to the 2 output channels.



The 2 output stages use the Class D module. The **PDA515P** includes a set of sophisticated processes for loudspeaker, implemented by the powerful MARANI® DSP running 96kHz/24bit [96 bits precision for the internal intermediate processes] and high performance 24bit AD/DA Converters. Processes as Noise Gate, crossover filters, parametric EQs per input and output sections, RMS compressor, alignment delay are available, all in all everything needed to optimize a self-powered loudspeaker. Moreover the Clip/Limiter function per channel provides output monitoring to prevent speaker damage with gentle gain reduction at clip threshold, in addition to the efficient heat dissipation system and Over-Heat protection which themselves ensure uncompromised reliability. Furthermore the **PDA515P** is also equipped with a Dynamic Loudness function and an useful Pink/White noise generator. All setup parameters for input mixing, DSP features and the limiter setting are accessible by using the remote PC software.



Features

Outstanding Performance

- High power output: 500W + 150W @ 4Ω
- Switched-Mode Power Supply with PFC and auto voltage sensing
- Class D Amp Module - full bandwidth PWM modulator with ultra low distortion
- Full protection circuitry including Over-Current, Over/Under-Voltage, Output DC and Over-Temperature
- Excellent sonic performance with 24bit high end converters coupled with 96kHz sample rate

Top-grade DSP Engine

- 5 band parametric equalization per input channel
- 5 band parametric equalization per output channels
- 2 filter can be switched to Bell, Low/High Shelving, per channel
- Low/High Shelving, can be selected as variable Q response
- Crossover filters with slopes from 6dB/Octave up to -48dB/Octave including Butterworth, Bessel, Linkwitz-Riley
- Output features a precision dynamic range controller composed of a RMS Compressor with selectable ratio and variable knee

Input features a precision dynamic range controller composed of a RMS Compressor with selectable ratio, variable knee and Hold Time.

Adjustable Delay time up to 20ms for input and output channels

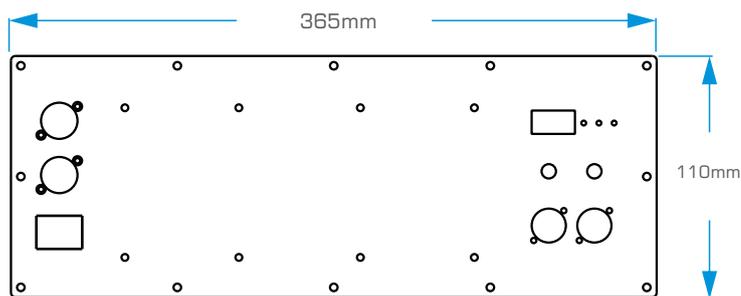
Input channel includes a Noise Gate function, Pink/White noise generator, sophisticated Dynamic Loudness function, a High-Pass filter with slopes from 6dB/Octave up to -48dB/Octave including Butterworth, Bessel, Linkwitz-Riley, and FIR phase correction up to 640 taps

Network Connection

Rs485 connection for system setup, monitoring and control via fully manageable remote PC software

Control

- Simultaneous control up to 32 units via PC software
- 8 Preset Selection by using rotary encoder switch
- Security Lockout



Power & Amplifier Sections

| | |
|--------------------------------|--|
| Number of Channels | ----- 2 |
| Max Output Power @ 4 ohms | ----- 500W+150W |
| Output Circuitry | ----- Class D - full bandwidth PWM modulator with ultra low distortion |
| Output Voltage | ----- +/-70 V (SE Mode unloaded) / Bridged +/-140V(BTL Mode unloaded) |
| THD +N | ----- <0.01% (20 Hz - 20 kHz, 8Ω load, 3dB below rated power) |
| Signal To Noise Ratio | ----- >102 dB (A-weighted, 20 Hz - 20 kHz, 8Ω load) |
| Frequency Response | ----- 20 Hz - 20 kHz ± 0,15 dB (8Ω load, 1 dB below rated power) |
| Damping Factor | ----- >1000 (8Ω load, 1kHz and below) |
| Power Supply | ----- Switch mode power supply with PFC (Power Factor Correction) and integral standby converter |
| Consumption / Current draw and | --- 10.2W / -A / 38.3 BTU/h (Idle) |
| Thermal dissipation @ 230 V | 153W / -A / 143.4 BTU/h (1/8 max. power@4Ω) |
| Operating Range | ----- Universal Mains, 85-265V |
| Protections | ----- Over-Current, Over/Under Voltage, Output DC and Over-Temperature |
| Maximum Input/Output Level | ----- +12dB |

Audio

| | |
|--------------------|--|
| Analog Input | ----- 1 x XLR electronically balanced, +12dB |
| Analog Output | ----- 1 x XLR electronically balanced (Link) |
| AD & DA Converters | ----- 24bit |

DSP & Processing

| | |
|---------------------------|---|
| DSP Engine | ----- MARANI® DSP |
| DSP Resolution | ----- 24bit (data) x 24 bit (coeff.), 54 bit accregisters, 96 bit precision on intrprocessing data |
| Parametric Equalization | ----- 5 filters per input channel; 5 filters per output channel |
| Filter Type | ----- Bell, Low/High Shelving variable Q |
| Input Filter Gain | ----- From -12dBu up to +12dBu by 0.5dBu resolution steps |
| Output Filter Gain | ----- From -18dBu up to +18dBu by 0.5dBu resolution steps |
| Center Frequency | ----- Selectable with a 1Hz resolution step from 20Hz up to 20kHz |
| Bell Filter Q/BW | ----- Q from 0.5 up to 10 by 0.1 resolution steps |
| Low/High ShelvingFilter Q | ----- Q from 0.5 up to 3 by 0.1 resolution steps |
| internal Noise Generator | ----- White/Pink Noise: -40dB~0dB |
| Crossover section HPF/LPF | ----- Butterworth 6/12/18/24/48dB per octave; Linkwitz-Riley 12/24/36/48dB per octave; Bessel 12/24dB per octave. Filter resolution 1Hz |
| OutPut RMS Compressor | ----- Sophisticated Dynamic Loudness function and additional High-Pass filter per input section |
| Input RMS Compressor | ----- Threshold from -18dB up to +12dBu; K |
| | ----- Attack time from 5ms up to 100ms; Release time from 40ms up to 1000ms (10ms resolution). |
| | ----- MakeUp from -12 to +12dBu; Threshold from -18dBu up to +12dBu; |
| | ----- Knee 0~100%; Ratio from 2:1 to 100:1; |
| | ----- Attack time from 5ms up to 500ms; Release time from 40ms up to 1000ms. |
| | ----- Input Hold-Time up to 10sec. |
| DLF | ----- Input: On/Off; Output: On/Off, Attenuation: -6dB~0dB, 0.1 steps |
| Delay | ----- 20 ms 10.4us increment/decrement steps per channel |
| Ground Noise | ----- -86 dBu |

General

| | |
|------------------------|---|
| User Preset | ----- 8 |
| Panel | ----- GAIN pot. -30dBu ~ 0dBu |
| | ----- PRESET EQ 8 positions Rotary encoder switch |
| | ----- Red LED (Power); Yellow LED (Link); Green LED (Signal presence) |
| | ----- 1 x XLR female connector (Input) |
| | ----- 1 x XLR male connector (Link Output) |
| | ----- 2 x RJ45 connector (M-LAN Rs485) |
| | ----- 2 X Locking PowerCON® 20A: AC Mains (blue) - AC Link (white) |
| | ----- IEC C13 16A connector; Power on/off switch |
| Dimensions | ----- 365x85x110mm |
| Weight, Net / Shipping | ----- 5.84 lbs (2.65 Kg) / 7.72 lbs (3.5 Kg) |