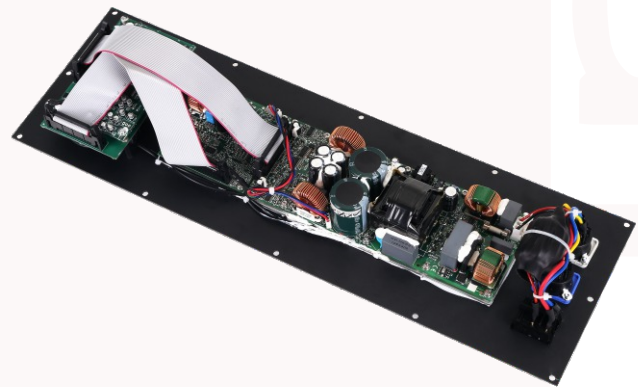
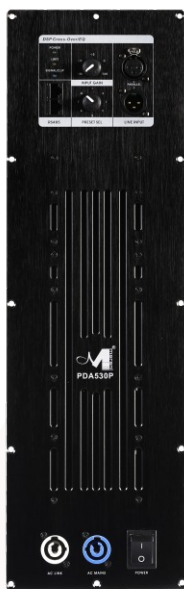


**PDA530P** is a complete solution dedicated to 1-way or 2-way self-powered loudspeakers. Designed to meet different applications, it provides 3 channels with output power of 3x500W@4 Ohm. Moreover the 2 channels can be bridged into a powerful single 1x1000W@8Ohm channel in order to drive i.e. Subwoofers 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 **PDA530P** includes a highly efficient universal switch mode power supply with PFC (Power Factor Correction) which provides a total 1kW power to the 3 output channels. The 3 output stages use the Class D module. The **PDA530P** 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, all in all everything needed to optimize a self-powered loudspeaker. Moreover the efficient heat dissipation system and Over-Heat protection ensure uncompromised reliability. Furthermore the **PDA530P** 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. High Band can be split or not in two sub-band. When the Xover split freq is enabled then the RMS compressor working on the lower band and a additional volume (hi\_level) working on the Higher band.



### Features

#### Outstanding Performance

High power output: 3 x 500W @ 4Ω

1 x 1000W @ 8Ω(BTL) + 1 x 500W @ 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, selected as Bell, Low/High Shelving variable Q

7 band parametric equalization on Mid and High frequency per output channel, selected as Bell, Low/High Shelving variable Q

3 band parametric equalization on Low frequency per output channel, selected as Bell

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

Adjustable Delay time up to 40 ms for input channels, and up to 20ms for output channels

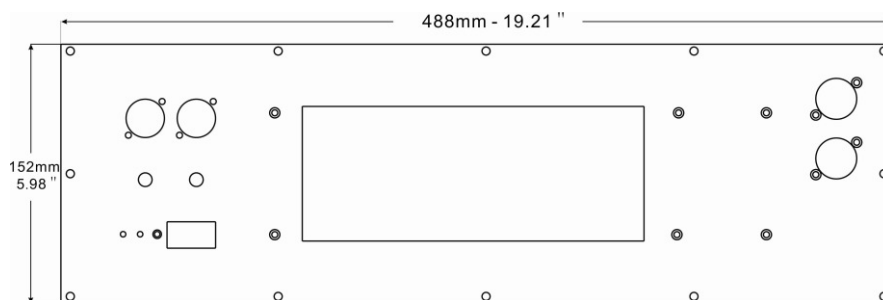
Input channel includes a Noise Gate function, Pink/White noise generator, sophisticated Dynamic Loudness function

#### Network Connection & Control

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

8 Preset Selection by using rotary encoder switch

Security Lockout



### Power & Amplifier Sections

Number of Channels	3	
Max Output Power @ 8 ohms	3 x 250W	1 x 1000W (Bridge)+1x250W
Max Output Power @ 4 ohms	3 x 500W	1 x 1000W (4Ω BTL Mode selected) + 1x500W
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	
Operating Range	Universal Mains, 85-265V	
Consumption / Current draw and	13W / -A / 44.3 BTU/h (Idle)	
Thermal dissipation @ 230 V	173W / -A / 143.4 BTU/h (1/8 max. power@4Ω)	
Protections	Over-Current, Over/Under Voltage, Output DC and Over-Temperature	
Maximum Input/Output Level	+12 dBu	

### 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,24bit (data) x 24bit (coeff.)
DSP Resolution	54bit accumulation registers, 96 bit precision on intermediate processing data
Parametric Equalization	5 filters per input channel; 3 filters for Low Frequency on output channel, 7 filters for Mid and High Frequency on 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 -12dBu up to +6dBu; 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
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
Input Noise Generator	Sophisticated Dynamic Loudness function White/Pink Noise, from -40dB to 0dB
OutPut RMS Compressor	Threshold from-18dB 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 (10ms resolution).
DLF	Input: On/Off Output: On/Off, attenuation from -6dB to 0dB, Q from 0.1 to 10 by 0.1dB resolution steps
Delay	up to 40ms for each input, up to 20ms for each output, with min step=10.4us
Slipt Band X-over(only High Band)	Freq from 5kHz to 20kHz step 1Hz resolution, slope: bypass, 1st order butterworth and 2nd order Linkwitz-Riley
Ground Noise	-86 dBu

### General

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 (Line Input) 1 x XLR male connector 2 x RJ45 connector (M-LAN Rs485) 2 x Locking PowerCON 20A: AC Mains(Blue) - AC Link (White) 1 x Power ON/OFF
Dimensions	19.21" x 3.15" x 5.98"(488x80x152mm)
Weight, Net / Shipping	6.09 lbs (2.76 Kg) / 8.83 lb (4 Kg)

Specifications subject to change without notice

Designed in Italy Assembled in China

# PDA530P