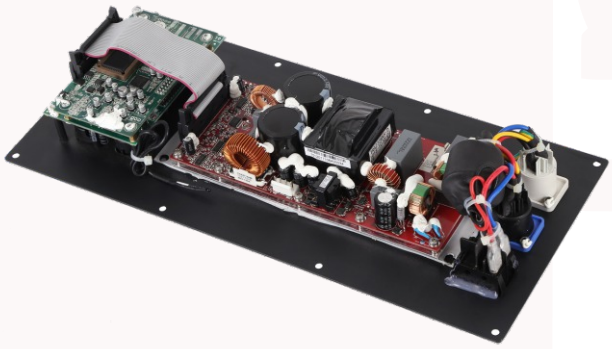
PDA515P

2-Channel Power Amplifier Module

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. Morever 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 well-known Pascal Class D T-PRO2 module The PDA515P includes a set of sophisticated processes for loudspeaker,implemented bythe powerful M704 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. Morever 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

Pascal Class D Amp Module - full bandwith 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

Designed in Italy Assembled in China

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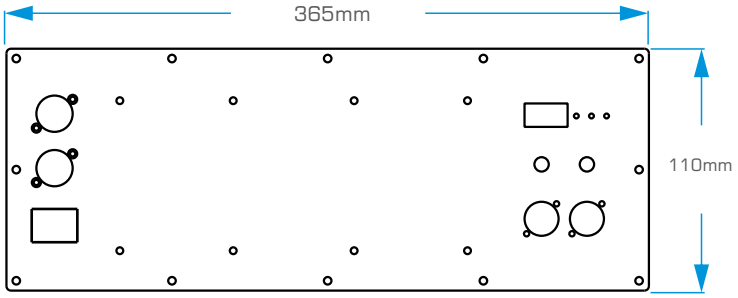

Power & Amplifier Sections

Number of Channels	2
Max Output Power @ 4 ohms	500W+150W
Output Circuitry	Class D - full bandwith 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	Cs42528 24bit

DSP & Processing

DSP Engine	MARANI M704
DSP Resolution	24bit (data) x 24 bit (coeff.), 54 bit accregisters, 96 bit precision on intprocessing 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 Sophisticated Dynamic Loudness function and additional High-Pass filter per input section
OutPut 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).
Input RMS Compressor	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)

Specifications subject to change without notice

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