

Plate Amplifiers

for Active Speakers - PDAXPRO3

PDAXPRO3 is a complete solution dedicated to 2-way or 3-way self-powered loudspeakers. Designed to meet different applications, it provides 2.1 channels with output power of 2x800W+2000W @4 Ohm. Moreover the 2.1 channels can be bridged into a powerful single



1500W+1500W@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 PDAXPRO3 includes a highly efficient universal switch mode power supply with PFC (Power Factor Correction) which provides a total 1500W power to the 2.1 output channels. The 2.1 output stages use the Class D module. The PDAXPRO3 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, Peak Limiter, 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 PDAXPRO3 is also equipped with a 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: 2 x 800W + 2000W @ 4Ω
2 x 1500W @ 8Ω (BTL)

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

10 Bell + 2 Shelving per input channel

5 band parametric equalization per output channel, selected as Bell, Low/High Shelving variable Q Output features a precision dynamic range controller

composed of a RMS Compressor with selectable ratio and variable knee and Peak Limiter

Adjustable Delay time up to 600ms for input channels, and up to 10ms for output channels

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

Network Connection

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

Control

4 Preset Selection by using rotary encoder switch

Security Lockout

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Power & Amplifier Sections

Number of Channels -----	2.1
Max Output Power -----	2 x 1500W @ 8Ω (BTL) 2 x 800W+2000W@ 4Ω
Output Circuitry -----	Class D - full bandwidth PWM modulator with ultra low distortion
Output Voltage -----	79 Vp / 158 Vpp(unloaded) / Bridged 154 Vp / 308 Vpp(unloaded)
THD @ Rated power 4Ω (1kHz) ----	<0.005% (20 Hz - 20 kHz, 8Ω load, 3dB below rated power)
Signal To Noise Ratio -----	>120 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 ---	23 W / -A / 78.4 BTU/h (Idle)
Thermal dissipation @ 230 V-----	39 W / -A / ----- 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 -----	10 Bell + 2 Shelving per input channel
	5 band parametric equalization per output channel, selected as Bell, Low/High Shelving variable Q
Filter Type -----	Bell, Low/High Shelving variable Q
Filter Gain -----	From -24dBu up to +12dBu; 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 Shelving Filter 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
	Sophisticated Dynamic Loudness function
Input Noise Generator-----	White/Pink Noise, from -40dB to 0dB
Input RMS Compressor-----	Make up from -6dB to +6dB; Threshold from -18dB up to +12dBu; Knee 0~100%; Ratio 2:1~100:1; Attack time from 5ms up to 100ms; Release time from 40ms up to 1000ms Hold-Time up to 10sec
Out Put RMS Compressor -----	Make up from -6dB to +6dB; Threshold from -18dB up to +12dBu; Knee 0~100%; Ratio 2:1~100:1; Attack time from 5ms up to 500ms; Release time from 40ms up to 1000ms (10ms resolution).
DLF-----	Input: On/Off + Amount %Output: On/Off, attenuation from -6dB to 0dB, Q from 0.1 to 10 by 0.1dB resolution steps
Delay -----	up to 600ms for each input, up to 10ms for each output, with min step=20.8us
Ground Noise -----	-86 dBu

General

User Preset-----	4
Dimensions -----	350x95x220mm
Weight, Net / Shipping -----	5.1 Kg / 6.3 Kg