

# Plate Amplifiers

## for Active Speakers - PDAXPRO2

PDAXPRO2 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 800W+2000W @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 PDAXPRO2 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 PDAXPRO2 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 PDAXPRO2 is also equipped with 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: 800W+2000W@ 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

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

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

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

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### Power & Amplifier Sections

Number of Channels -----	2
Max Output Power @ 4 ohms-----	800W+2000W@ 4Ω
Output Circuitry -----	Class D - full bandwidth PWM modulator with ultra low distortion
Output Voltage -----	70 Vp / 140 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 ---	27 W / -A / ---- BTU/h (idle)
Thermal dissipation @ 230 V-----	1849 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 dB

### 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 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 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 1000msHold-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