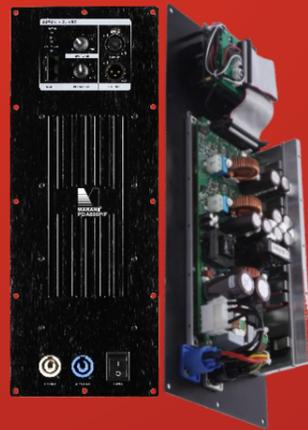


# Plate Amplifiers

for Active Speakers - PDA800P/F

**PDA800P** 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 2x800W@4 Ohm or 2x400W@8 Ohm. Moreover the 2 channels can be bridged into a powerful single 1x1400W@4Ohm 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 PDA800P includes a



highly efficient universal switch mode power supply with PFC (Power Factor Correction) which provides a total 1400W power to the 2 output channels. The 2 output stages use the Class D module. The PDA800P 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 and All-Pass filters 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 PDA800P 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. PDA800PF is a special version supporting up to 512 taps FIR filters for X-over, and for System Phase Correction.

## Features

### Outstanding Performance

High power output: 2 x 400W @ 4Ω or 1 x 1400W @ 8Ω (Bridge Mode)  
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  
7 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

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

4 Additional All-Pass filter up to 2nd order per output  
Adjustable Delay time up to 10 ms per input and output  
Input channel includes a Noise Gate function, Pink/White noise generator, sophisticated Dynamic Loudness function and a High-Pass filter with slopes from 6dB/Octave up to -48dB/Octave including Butterworth, Bessel, Linkwitz-Riley  
FIR Crossover filters are from 256 up to 512 taps, FIR type and Out Band attenuation is selectable (for PDA800PF ONLY)

### Network Connection and Control

Rs485 connection for system setup, monitoring and control via fully manageable remote PC software  
Simultaneous control up to 32 units via PC software  
8 Preset Selection by using rotary encoder switch  
Security Lockout

# Plate Amplifiers

for Active Speakers - PDA800P/F

## Power & Amplifier Sections

Number of Channels -----	2
Max Output Power @ 8 ohms-----	2 x 400W                      1 x 1400W (Bridge)
Max Output Power @ 4 ohms-----	2 x 800W
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 ---	25 W / -A / 85,35 BTU/h (idle)
Thermal dissipation @ 230 V-----	335 W / -A / 460.9 BTU/h (1/8 max. power@4Ω)
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 accumulation registers, 96 bit precision on intermediate processing data
Parametric Equalization -----	5 filters per input channel; 7 filters per output channel
Filter Type -----	Bell, Low/High Shelving variable Q, gain from -12dBu up to +6dBu
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 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 and additional High-Pass filter per input section All-pass filter up to 2nd order per output section
OutPut RMS Compressor -----	Drive from -12 to 6dBu; 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).
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.
Clip Limiter -----	Bypass, soft and Hard Threshold
Delay -----	10 ms 10.4us increment/decrement steps per channel
Split 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 -----	-86dB

## General

User Preset-----	8
Dimensions -----	16,73"x 3"x 6,3" (425x75x160mm)
Weight, Net / Shipping -----	5.84 lbs (2.65 Kg) / 7.72 lbs (3.5 Kg)