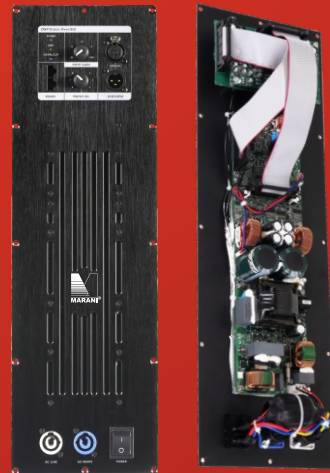


Plate Amplifiers

for Active Speakers - PDA530P/F

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. 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 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. 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. PDA530PF is a special version, providing 256 to 512 taps Xover 3 Way FIR, selectable with different window types and out of band attenuation

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 6 to -48dB/Octave including Butterworth, Bessel, Linkwitz-Riley
Xover FIR is also available in the FIR version - PDA530PF
Output features a precision dynamic range controller composed of a RMS Compressor
Adjustable Delay time up to 900.998ms for input channels, and up to 9.998ms 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

Plate Amplifiers

for Active Speakers - PDA530P/F

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 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
Xover FIR (ONLY for PDA530PF)---	Taps from 256 to 512, with selectable window type and out of band attenuation
Input Noise Generator-----	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
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 900.998ms for each input, up to 9.998ms for each output
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 -----	-86 dBu

General

Dimensions -----	19.21" x 3.15" x 5.98"(488x80x152mm)
Weight, Net / Shipping -----	6.09 lbs (2.76 Kg) / 8.83 lb (4 Kg)