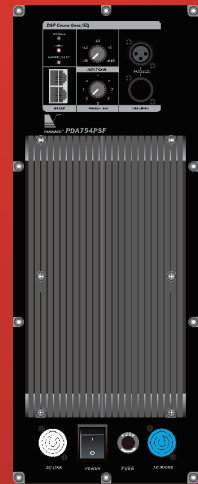


# Plate Amplifiers

## for Active Speakers - PDA753PSF

**PDA753PSF** is a complete solution dedicated to 3-way self-powered loudspeakers. Designed to meet different applications, it provides 3 channels with output power of 2x750W @4ohm+1500W @8ohm. 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 **PDA753PSF** output stages use the well-known Class D amplifier module. The **PDA753PSF** 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 each output is also equipped with HP/LP filter, and up to 512 taps FIR filter, whose coefficients could be imported from the Third Party Application. 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: 1 x 1500W @ 8Ω (BTL) + 2 x 750W @ 4Ω  
 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 channel  
 All PEQ filters could be selected as Bell, Low/High Shelving, LP/HP variable Q and Notch Filter  
 Crossover filters with slopes from 6dB/Octave up to -48dB/Octave including Butterworth, Bessel, Linkwitz-Riley

Input/Output feature a precision dynamic range controller composed of a RMS Compressor and Peak Limiter  
 Adjustable Delay time up to 960.998 ms for input channel, and 20.998ms for output channel  
 Input channel includes a Noise Gate function, Pink/White noise generator, RMS Compressor, and a up to 48dB/Oct High-Pass filter  
 While Output channel contains up to 24dB/Oct HP/LP filter, up to 512 taps FIR X-over with coefficients possible imported from external application, and Peak Limiter

#### Network Connection and Control

Rs485 connection for system setup, monitoring and control via fully manageable remote PC software  
 5 Preset Selection by using rotary encoder switch  
 Security Lockout

# Plate Amplifiers

## for Active Speakers - PDA753PSF

### Power & Amplifier Sections

Number of Channels -----	3
Max Output Power -----	2x750W@4ohm+1500W@8ohm
Output Circuitry -----	Class D - full bandwidth PWM modulator with ultra low distortion
Output Voltage -----	78 V (SE Mode) / 156V(BTL Mode)
THD+N(from 0.1W to 1/2 Power)-----	<0.08% (typical <0.05%)
Signal To Noise Ratio -----	>115 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 -----	>500 @1kHz
Power Supply -----	Integrated power supply and auto voltage sensing
Operating Range -----	Universal Mains, 85 – 264VAC
Protections -----	Over-Current, Over/Under Voltage, Output DC and Over-Temperature
Ground Noise -----	-86dBu
Maximum Input/Output Level -----	+12 dB

### Audio

Analog Input -----	1 x XLR electronically balanced, +12dB
Analog Output -----	1 x XLR electronically balanced, +12dB
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
Input/Output Gain -----	Range from -60dB to +12 dB
Parametric Equalization -----	5 filters per input channel; 7 filters per output channel
Filter Type -----	Bell, Low/High Shelving variable Q, HP/LP, and Notch
Filter Gain -----	From -15dBu up to +15dBu by 0.5dBu resolution steps
Center Frequency -----	Selectable with a 1Hz resolution step from 20Hz up to 20kHz
Filter Q/BW -----	Bell: 0.4 up to 128; Lo/Hi-Shelving, HP/LP:0.1 up to 5.1; Notch: 4 up to 104
Crossover section FIR-----	Up to 512 taps coefficients, FIR type selection and out of band attenuation, operating from 250Hz, up as Xover point; accepted coefficients generated by external applications.
Crossover section IIR-----	HPF/LPF Butterworth 6/12/18/24dB per octave; Linkwitz-Riley/Bessel 12/24dB per octave; Filter resolution 1Hz
Input Special Filters-----	HP filter up to 48dB/Oct, selectable as Butterworth, Linkwitz-Riley and Bessel
Input RMS Compressor -----	Threshold from -18dBu up to +12dBu; Attack time from 5ms up to 200ms; Knee 0~100%; Ratio from 2:1 to 32:1;Release time from 0.1s up to 3s
Output Peak Limiter -----	Threshold from -18dBu up to +12dBu Release time from 1ms up to 900ms; Attack time from 0.1s up to 5s;
Delay -----	up to 960.998ms for input up to 20.998ms for output

### General

Dimensions -----	155x400x90 (mm)
Weight, Net / Shipping -----	4.7kg/ 5.3kg