

# Speaker Management Systems

DPA Series - DPA480P

**DPA480P** is a cost-effective 4-IN/8-OUT digital speaker management system catering to any crossover configuration with its suitable processing and control for live application use. 4 analog inputs and 8 analog outputs are managed by a powerful MARANI® DSP Engine, in addition to 24 Bit AD/DA Converters. Each input channel provides 30 PEQ, gain control, noise gate function, RMS compressor, and configurable delay. Each

output offers 7 PEQ with the crossover filters whose slopes from 6dB up to 48dB/Octave. Each output path also features peak limiter, HP/LP Filters, and driver alignment delay. The DPA480P supports a full matrix mixing mode where inputs may be routed/mixed in any ratio to any output. For remote configuration and control the DPA480P can be connected via USB or RS485 connections to remote control PC software.



## Features

### Outstanding Performance

Excellent sonic performance with 24bit high end converters coupled with 96kHz sample rate  
4 inputs, 8 outputs with full matrix mixing

### Top-grade DSP Engine

30 band parametric equalization per input channel  
7 band parametric equalization per output channel  
Each band can be switched to Bell, Hi/Lo-Shelving, HP/LP, Band Pass, Notch and All Pass filters  
Crossover filters with slopes from 6dB/Octave up to 48dB/Octave including Butterworth, Bessel, Linkwitz-Riley  
Each output features a dynamic range controller

composed of a Peak Limiter  
Adjustable Delay time up to 420.998 ms for every input channel , up to 128.998 ms for every output channel

### Direct PC/Network Connection and Control

Front panel USB connector for direct PC communications  
Rs485 connection for system setup, monitoring and control via fully manageable remote PC software  
Front panel interactive LCD display for local access and configuration  
Simultaneous control up to 32 units via PC software  
Up to 24 storable user presets  
Security Lockout

## Applications

- Auditoriums
- Houses of Worship
- Theaters
- Performing Art Centers
- Convention Centers
- Stadiums and Arenas
- Touring Musicians
- Stage Monitoring System digital

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## Audio

Analog Input -----	4 x XLR electronically balanced
Analog Output -----	8 x XLR electronically balanced
Minimum Load -----	150 ohm
THD+N -----	0.001% at 1kHz 0dBu
S/N -----	>106dBA
Frequency Response -----	20Hz - 20kHz; -0.5dBu at 20Hz and 20kHz
AD & DA Converters -----	24bit - 96kHz

## 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 -----	30 filters per input; 7 filters per output
Filter Type -----	Bell, Hi/Lo-Shelving, HP/LP, Band Pass, Notch and All Pass Filters selectable
Filter Gain -----	From -15dBu up to +15dBu by 0.5dBu resolution steps
Center Frequency -----	from 20Hz up to 20kHz with 1Hz resolution steps
Filter Q/BW -----	Bell Q: 0.4~128; Shelving/HP/LP Q: 0.1 ~ 5.1; BP/Notch/All Pass Q: 4 ~ 104
Input&Output Level-----	From -18dB to +12dB by 0.1dBu resolution steps;
Crossover Section HPF/LPF -----	Butterworth 6/12/18/24/36/48 dB per octave Bessel 12/24 dB per octave Linkwitz-Riley 12/24/36/48 dB per octave
Input Noise Gate-----	Threshold from -80dBu up to -50dBu Attack time from 1ms up to 1000ms;Release time from 10ms up to 1000ms
Input RMS Compressor -----	Threshold from -14dBu up to +16dBu and Byp Ratio 2:1~32:1; Knee: 0% ~ 100%; Makeup from -12dB to +12dB
Output Peak Limiter-----	Attack time from 5ms up to 200ms;Release time from 0.1 sec up to 3 sec Threshold from -14dBu up to +16dBu and Byp
Input&Output Polarity-----	Attack time from 1ms up to 900ms;Release time from 0.1 sec up to 5 sec Normal (0°) or Inverted (180°)
Input&Output Mute-----	ON / OFF
Delay -----	420.998 ms per input channel; 128.998 ms per output channel

## General

Device Presets-----	24 User Presets
Dimensions -----	19"x 1.75"x 9" (482x44x230mm) 1RU
Weight, Net / Shipping -----	7.71 lbs (3 Kg) / 8.82 lb (3.5 Kg)