

DPA240P is a cost-effective 2-IN/4-OUT digital speaker management system. Designed to be catered for any crossover configuration, it provides the suitable processing and control for live application use. It offers 2 analog inputs, and 4 analog outputs, managed by a powerful MARANI M704 DSP Engine, in addition to 24 Bit AD/DA Converters. Each input channel provides a choice of EQ with a 11-band Parametric Filters, gain control, Dynamic Low boost, noise gate function, RMS compressor, internal White/Pink Noise Generator, and configurable delay. Each output offers up to 7-band of parametric equalization

in to the crossover filters which themselves provide slopes from 6dB/Octave up to 48dB/Octave. Each output path also features peak limiter or RMS Compressor selectable, Dynamic Loudness filter (only Output 1,3) and driver alignment delay. The **DPA240P** supports a full matrix mixing mode where inputs may be routed/mixed in any ratio to any output. For remote configuration and control the **DPA240P** can be connected via USB or RS485 connections. The control remote PC software allows simultaneous control up to 32 units, setting all parameters and showing real time levels.



Features

Outstanding Performance

Excellent sonic performance with 24bit high end converters coupled with 48kHz sample rate

2 inputs, 4 outputs with full matrix mixing

Top-grade DSP Engine

11 band parametric equalization per input channel

7 band parametric equalization per output channel

Each band can be switched to Bell, Shelving

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 and RMS Compressor

Adjustable Delay time up to 900 ms for every input channel

up to 340ms for every output channel

Phase correction per Input and output channel

Direct PC/Network Connection

Rear panel USB connector for direct PC communications

RS485 connection for system setup, monitoring and control via fully manageable remote PC software

Control

Front panel interactive LCD display for local access and configuration

Front panel 7-LED level meter indicators per channel

Simultaneous control up to 32 units via PC software

Up to 48 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



Audio

Analog Input	2 x XLR electronically balanced
Analog Output	4 x XLR electronically balanced
Minimum Load	150 ohm
THD+N	0.001% at 1kHz OdBu
S/N	>106dBA
Frequency Response	20Hz - 20kHz; -0.5dBu at 20Hz and 20kHz
AD & DA Converters	Cs42528 24bit - 48kHz

DSP & Processing

DSP Engine	MARANI M704
DSP Resolution	24bit (data) x 24 bit (coeff.), 54 bit accumulation registers 96 bit precision on intermediate processing data
Parametric Equalization	11 filters per input 7 filters per output
Filter Type	Bell, Shelving
Filter Gain	From -12dBu up to +12dBu by 0.5dBu resolution steps
Center Frequency	from 20Hz up to 20kHz with 1Hz resolution steps
Filter Q/BW	Q from 0.4 up to 128
Input gain	From -12dB to +12dB by 0.1dBu resolution steps;
Output gain	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
Internal Noise Generator	White/ Pink Noise; Level from -30dBu to 0dBu
Input Noise Gate	Threshold from -90dBu up to -60dBu
Input RMS Compressor	Attack time from 1ms up to 1000ms; Release time from 10ms up to 1000ms Threshold from -14dBu up to +16dBu and Byp Ration 2:1~100:1; Knee: 0% ~ 100%
Output RMS Compressor (if selected)	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 Ration 2:1~100:1; Knee: 0% ~ 100%
Output Peak Limiter (if selected)	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
DLF	Input: Boost Filter from 0% to 100%; Frequency from 20Hz to 20kHz; Output(Only for output 1,3): Attenuation Filter from 0dBu to -6dBu; Frequency: 20Hz to 1kHz Q from 1 to 9.9 step 0.1
Delay	900 ms 10.4us increment/decrement steps per input channel 340 ms 10.4us increment/decrement steps per output channel
Ground Noise	-90dBu

General

Device Presets	48 User Presets
Front Panel	2x24 character LCD display with green LED backlight 7-LED meter per input channel -15dBu to +15dBu, clip 7-LED meter per output channel -15dBu to +15dBu, clip and limiter mode Blue LED (Edit) per channel Red LED (Mute) per channel NAV/PM1 Rotary encoder push button switch PM2, PM3, ENTER, ESC, UTILITY push button switches EDIT/MUTE push button per channel USB type B connector
Rear Panel	2 x XLR female connector (Input) 4 x XLR male connector (Output) 1 x XLR female connector for RS485 (Input) 1 x XLR male connector for RS485 (Output) 2 x Ground-lift toggle switch IEC C13 16A connector; Power on/off switch
Main AC	90-240VAC (50/60Hz) - 40W
Dimensions	19"x 1.75"x 9" (483x44x229mm) 1RU
Weight, Net / Shipping	7.71 lbs (3.5 Kg) / 8.82 lb (4 Kg)

Specifications subject to change without notice

Designed in Italy Assembled in China

DPA240P