

Speaker Management Systems

DPA Series - DPA240P

DPA240P is a cost-effective 2-IN/4-OUT digital speaker management system for fitting any crossover configuration, with suitable processing and control for live application use. 2 analog inputs and 4 analog outputs are managed by a powerful MARANI® DSP Engine, in addition to 24 Bit AD/DA Converters. Each input channel provides PEQ, gain control, Dynamic Low boost, noise gate function, RMS compressor, internal White/Pink Noise Generator, and configurable delay. Each output offers up to PEQ with crossover filters

whose slopes from 6 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 to the dedicated PC control Software.



Features

Outstanding Performance

Excellent sonic performance with 24bit high end converters coupled with 48kHz sample rate
2 inputs, 4 outputs with full matrix mixing

Adjustable Delay time up to 900 ms for every input channel up to 340ms for every output channel

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

Direct PC/Network Connection and Control

Rear 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 48 storable user presets
Security Lockout

Applications

- Auditoriums
- Houses of Worship
- Theaters
- Convention Centers
- Stadiums and Arenas
- Touring Musicians

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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 0dBu
S/N	>106dBA
Frequency Response	20Hz - 20kHz; -0.5dBu at 20Hz and 20kHz
AD & DA Converters	24bit - 48kHz

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	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 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 Ration 2:1~100:1; Knee: 0% ~ 100% Attack time from 5ms up to 200ms;Release time from 0.1 sec up to 3 sec
Output RMS Compressor (if selected)	Threshold from -14dBu up to +16dBu and Byp Ration 2:1~100:1; Knee: 0% ~ 100% Attack time from 5ms up to 200ms;Release time from 0.1 sec up to 3 sec
Output Peak Limiter (if selected)	Threshold from -14dBu up to +16dBu and Byp Attack time from 5ms up to 200ms;Release time from 0.1 sec up to 3 sec
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
Dimensions	19"x 1.75"x 9" (483x44x229mm) 1RU
Weight, Net / Shipping	7.71 lbs (3.5 Kg) / 8.82 lb (4 Kg)