DPA4448QRT is a High End 4-IN/4-OUT digital speaker management system which maintains the same high quality hardware present in former versions. Designed for maximum versatility, it provides all the processing and control necessary for both live and fixed installation use. Proving for any crossover configuration, it offers 4 analog inputs, 4 analog outputs, managed by a powerful MARANI ® DSP Engine, for a full 96kHz processing, in addition to high performance 24 bit AD/DA Converters. Each input channel provides a choice of EQ with 13-band parametric EQ, Gain control, Noise Gate, RMS Compressor, Internal White/ Pink Noise Generator, and configurable Delay. Each output offers up to 11-band of parametric equalization, in addition to the crossover filters which themselves provide slopes from 6dB/Octave up to48dB/Octave. Each output path also features Peak Limiter, RMS Compressor and configurable Delay. The **DPA4448QRT** supports two full matrix mixing mode where on the first matrix each input may be routed/mixed in any ratio to any output and on the second matrix each output channel may be routed/mixed in any ratio to any output. For remote configuration and control the **DPA4448QRT** can be connected via USB or ETHERNET 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 96kHz sample rate

4 inputs, 4 outputs with full matrix mixing

Top-grade DSP Engine

13 band parametric equalization per input channel

11 band parametric equalization per output channel

Each band can be switched to Bell, Shelving, HP/LP, Band Pass, Notch Filter, All Pass

Crossover filters with slopes from 6dB/Octave up to 48dB/Octave including Butterworth, Bessel, Linkwitz-Riley

Process Overflow limiting

Each output features a precision dynamic range controller composed of a Limiter working on RMS value of the limiter's input

Adjustable Delay time up to 480 ms for every input channel and 270 ms for each output channel

Phase correction per input and output channel

Direct PC/Network Connection

Rear panel USB connectorfor direct PC communications

Ethernet Interface 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 32 storable user presets

Security Lockout

Applications

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

Audio

Analog Input	4 x XLR electronically balanced
Analog Output	4 x XLR electronically balanced
Minimun Load	150 ohm
THD+N	0.001% at 1kHz 0dBu
S/N	>110dBA
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	13 PEQ filters per input; 11 filters per output
Master Gain	From -18dB to +12dB for input and output; by 0.1dBu resolution steps
Gain	From -30dB to 0dB for input and output; by 0.1dBu resolution steps
Filter Type	Bell, Shelving, HP/LP, Band Pass, Notch Filter, All Pass
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 Type: Q from 0.4 up to 128 in 100 steps Shelv/Hp/LP Type: Q from 0.1 up to 5.1 in 100 steps BandPass/Notch Type/All Pass: Q from 4 up to 104 in 100 steps
Crossover Section HPF/LPF	Butterworth 6/12/18/24/36/48dB per octave Bessel 12/24dB per octave Linkwitz-Riley 12/24/36/48dB per octave
2 Internal Noise Generator(to input 1/2 and to input 3/4)	White/Pink Noise; Level from -40dBu to 0dBu
Input Noise Gate	Threshold from -80dBu up to -50dBu, or not active Attack time from 1ms up to 1000ms; Release time from 10ms up to 1000ms
Input/Output RMS Compressor	Threshold from 20dBu up to -10dBu Ratio: 2:1~32:1; Knee: 0~100%; Makeup from -12dBu to +12dBu Attack time from 5ms up to 200ms; Release time from 0.1sec up to 3sec
Output Peak Limiter	Threshold from 20dBu up to -10dBu; Attack time from 1ms up to 900ms; Release time from 0.1sec up to 5sec
Headroom on Internal Overflow Processes	12 dB
2 Routing	full matrix mixing mode
Delay	480 ms 10.4us increment/decrement steps for each input, 270ms 10.4us increment/decrement steps for each output
Ground noise	-90 dBu

General

Device Presets	32 User Presets
Front Panel	2x24 character LCD display with green LED backlight 7-LED meter per input channel -15dBu to +15dBu, clip and limiter mode 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	4 x XLR female connector (Input) 4 x XLR male connector (Output) 1 x RJ45 for Ethernet connection (10/100 TCP-IP) 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

DPA4448QRT