The DPA880T is a high performance 8 input x 8 output digital Matrix mixer. Designed for maximum versatility, it provides all the processing and control necessary for fixed installation use. Particularly suitable for conference system applications and other applications with multiple microphones and loudspeakers. It includes 8 independently switchable Line/Mic inputs with Phantom power supply, 8 Line outputs, managed by a powerful DSP Engine, in addition to high performance 24 Bit AD/DA converters. The DPA880T supports a full matrix mixing mode where inputs may be routed/mixed in any ratio to any output. Each Mic/Line input channel provides Low/High-Pass 1st order filters, 3-band Parametric EQ, Noise Gate function and Gain control. In addition Mic inputs include a Feedback Eliminator function, based on a powerful "Pitch Shifting" algorithm, particularly suitable for voice applications. Each output offers up to 5-band of parametric equalization, in addition to the crossover filters which themselves provide slopes from 6dB/Octave up to 24dB/Octave. Each output path also features RMS compressor, Peak Limiter and configurable Delay. For remote configuration and control the DPA880T can be connected via Ethernet, USB or RS485 by using the control remote PC software. In addition, it can be managed by an **Apple iPad®** device, using the dedicated DPA880xT software setting all parameters For complex systems, 4 digital Input and 4 digital output ports are provided for GPIO Integration allowing connection to various devices. Furthermore the DPA880T can be connected via RS485 to the optional CP4 Wall Panel control that allows selection of 4 assigned presets and master volume control.

Features

Outstanding Performance

Excellent sonic performance with 24bit converters coupled with 48Khz sample rate

8 Mic/Line inputs, 8 outputs with full matrix mixing

Top-grade DSP Engine

3 band parametric equalization and Low/High pass filters per input channel

5 band parametric equalization per output channel

Each band can be switched to Peaking, Low/High Shelving with variable Q response

Crossover filters with slopes from 6dB/Octave up to 24dB/ Octave including Butterworth, Bessel, Linkwitz-Riley

Gain Control, Noise Gate, Feedback Eliminator (Mic input only) per input channel

Each output features a precision dynamic range controller composed of a Peak Limiter and a RMS Compressor with selectable ratio and variable knee

Adjustable Delay time up to 380 mS per output channel

Direct PC/Network Connection

Front panel USB connector for direct PC communications

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

Control

Front panel interactive LCD display for local access and configuration

Front panel 6-LED status indicators per channel

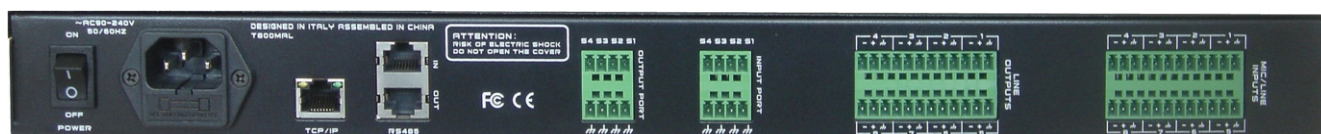4 digital input ports for additional 4 preset selections with priority configuration

4 digital output ports for triggering external devices

Simultaneous control up to 32 units via PC software

DPA880xT software for Apple iPad® device allowing simultaneous control up to 32 units, setting all parameters and showing real time levels.

Optional Marani CP4 Wall Panel control allowing selection of 4 assigned presets and master volume control

Security Lockout

Audio

Analog Input	8 electronically balanced
Analog Output	8 electronically balanced
Maximum Input Level	Line: +18dBu; Mic: -18dBu
Maximum Output Level	+18dBu
THD+N	0.005% at 1kHz 0dBu
S/N	>104dBA
Frequency Response	20Hz - 20kHz +/-1dB
AD & DA Converters	4x AK5385B 24bit, 1x AK4358 24bit

DSP & Processing

DSP Engine	Dream SAM3716, 24bit (data) x 96 bit (coeff.)
DSP Resolution	24x32 bit for filtering process; 96 bits resolution on intermediate computation results
Input Equalization	3-band parametric selected as Peaking or Low/High Shelving with variable Q per input channel Low/High Pass 1St order filter per input channel
Output Equalization	5-band parametric EQ selected as Peaking or Low/High Shelving with variable Q per output channel
Filter Gain	From -12dBu up to +12dBu by 0.5dBu resolution steps
Center Frequency	Selectable with a 1/24th of octave resolution step from 20Hz up to 20kHz
Filter Q/BW	Q from 0.4 up to 10 by 0.1 resolution steps
Crossover Section HPF/lLPF	Butterworth 6/12/18/24dB per octave Bessel, Linkwitz-Riley and custom 12/24dB per octave Filter resolution 1/24th of octave
RMS Compressor and Peak Limiter	Threshold from 18dBu up to -30dBu Attack time from 5ms up to 200ms (1ms resolution up to 20ms, 10ms resolution up to 100ms and 20ms resolution up to 200ms) Release time from 0.1 sec up to 3 sec (0.1sec resolution) Ratio from 1:1 to 32:1 (Compressor only) Adjustable Soft or Hard Knee (Compressor only)
Delay	380,998 ms 21us increment/decrement steps per output channel only
Feedback Eliminator	Pitch Shifting algorithm only for Mic input channels

General

Device Presets	6 User Presets + 4 by using S1-S4 digital input ports
Front Panel	2x24 character LCD display with white/blue LED backlight 6-LED status indicators per channel (Line, Mic, FBK, Signal, Clip, Limiter) 1-LED indicator Phantom Power 6 x preset selection push button switch USB type B connector
Rear Panel	2 x 12 pin Phoenix connector (Mic/Line Inputs) 2 x 12 pin Phoenix connector (Line Outputs) 2 x 4 pin Phoenix connector (S1-S4 digital input ports - TTL level 0-5V) 2 x 4 pin Phoenix connector (S1-S4 digital output ports - TTL level 0-5V) 2 x RJ45 for RS485 In/Out connection 1 x RJ45 connector with activity LEDs for Ethernet connection (10/100 TCP-IP) IEC C13 16A connector; Power on /off switch
Optional Device	Marani CP4 Wall Panel control
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

DPA880T