

DP7008 DP1580 DP1586

DSP Matrix Audio Processor



Description

The DP7008, DP1580, and DP1586 are DSP matrix audio processors available in 8-input/8-output and 16-input/16-output configurations, designed for conference and professional audio systems. They feature advanced voice algorithms including AFC, AEC, and ANC, along with comprehensive DSP functions such as auto mix, matrix mixing, noise gate, crossover, parametric EQ, delay, compressor, and limiter. Optional Dante network audio with 16×16 channels is supported, making them suitable for professional applications.

The DP7008 offers 8 channels, the DP1580 provides 16 channels, and the DP1586 features 16 channels with integrated Dante functionality. This series is ideal for meeting rooms, multi-purpose halls, auditoriums, and sports stadiums.

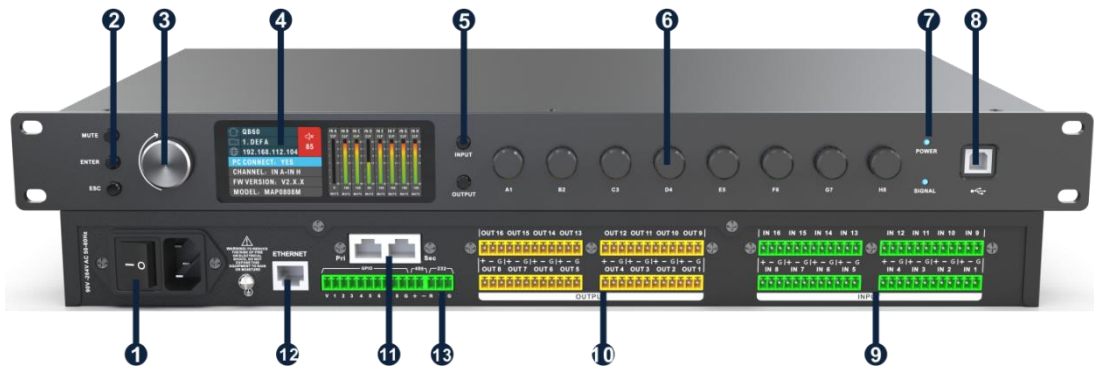
Features

- 8 or 16 analog inputs and 8 or 16 analog outputs, with selectable Line level and Mic level per channel.
- Optional Dante network audio with 16×16 channels.
- 48V phantom power available for each Mic-level input, with 40 sensitivity levels (1dB per step).
- Built-in AFC (feedback cancellation) with 2 selectable levels.
- Built-in AEC (echo cancellation) for remote video conferencing systems.
- Built-in ANC (noise cancellation) for optimizing local meeting systems.
- Built-in AGC (automatic gain control) for optimizing microphone signals in complex scenarios.
- 8-band PEQ for inputs and 8-band PEQ for outputs. Supports LSLV, HSLV, ALL-PASS, PHASE, ELLIPTIC, LOW PASS, and HIGH PASS filters. HPF and LPF with Butterworth, Bessel, or Linkwitz-Riley characteristics.
- Supports auto mix and matrix mix.
- Supports camera tracking with most camera control protocols.
- Preset archiving and locking function to help hide parameter settings for project security.
- Control interfaces: USB or TCP/IP. Equipped with RS232 and RS485 for central control integration, and GPIO for external control.
- User-friendly GUI software MConsole for Windows 7/8/10/11.
- Optional touchscreen wall control panel (RS485 wired control).

Specifications

Model	DP7008 DP1580 DP1586
1. DSP Process	
Process	32bit float point DSP 400MHz
System Delay	<3ms
AD/DA	24-bit 48KHz
2. Analog Audio Inputs and Outputs	
Input	8/16 channels balanced. Line/Mic level to switch
Input Interface	3.81mm phoenix, 12-pin
Input Impedance	16K Ω
Max Input Level	17dBu/Line; -3dBu/Mic@20dB sensitivity
Phantom Supply	+48V DC, 5.5mA in each input channel
Output	8/16 channels balanced. Line level
Output Interface	3.81mm phoenix, 12-pin
Output Impedance	150 Ω
3. Audio Performance Specifications	
Frequency Response	20Hz-20kHz(+0.5dB)/Line, input 0dBu; 20Hz-20kHz(+1.5dB)/Mic, 20dB gain sensitivity, input -10dBu
THD+N	-90dB(@17dBu, 1kHz, A-wt)/Line -90dB(@-6dBu, 1kHz, A-wt)/Mic, 20dB gain sensitivity
SNR	110dB(@17dBu, 1kHz, A-wt)/Line 100dB(@-6dBu, 1kHz, A-wt)/Mic, 20dB gain sensitivity
4. Connect Ports and Indicators	
USB	Type A-B, free driver
RS232	Serial port communication
TCP/IP Interface	RJ-45
Indicator Light	Input signal, +48V, Link, Output signal
5. Electrical and Physical	
Supply	AC 90V ~ 264V 50/60 Hz
Product Dimensions	483mmx265mmx44.5mm
Package Dimensions	540mmx390mmx80mm
Net Weight	3.3kg
Package Weight	4.4kg
Operating Temperature	-20 $^{\circ}$ C ~ 80 $^{\circ}$ C

Function Structure and Panel Operation



- 1. Power connector
- 2. Device mute button
- Menu enter/esc button
- 3. OK knob
- 4. Colourful dual-display
- 5. Switch button - input channel
- Switch button - output channel
- 6. Gain knob
- 7. Power and signal indicator
- 8. USB control and audio
- 9. Output channels (Line level)
- 10. Input channels (Line/Mic level)
- 11. Dante network audio
- 12. Ethernet (TCP/IP) control
- support external control system
- 13. -GPIO control
- (8 channel)
- RS485 control
- RS232 control
- support external control system

Dimensions (mm)

