

## DP8008 DP8084 DP8016 / DP1680 DP1684 DP1686

# 8-Channel / 16-Channel Conference Audio Processor with AFC ANC AEC DSP



Note: The product picture only uses DP1684 for reference only.

## Description

The DP8008, DP8084, DP8016, DP1680, DP1684, and DP1686 are DSP matrix audio processors featuring 8/16 inputs and 8/16 outputs, designed for conference systems and professional audio systems. These products incorporate useful voice algorithms including AFC, AEC, and ANC, along with DSP functions such as auto mix, matrix mixer, noise gate, crossover, parametric EQ, delay, compressor, and limiter. They optionally support Dante network audio with 4x4 or 16x16 channels, making them suitable for a wide range of professional applications.

## Features

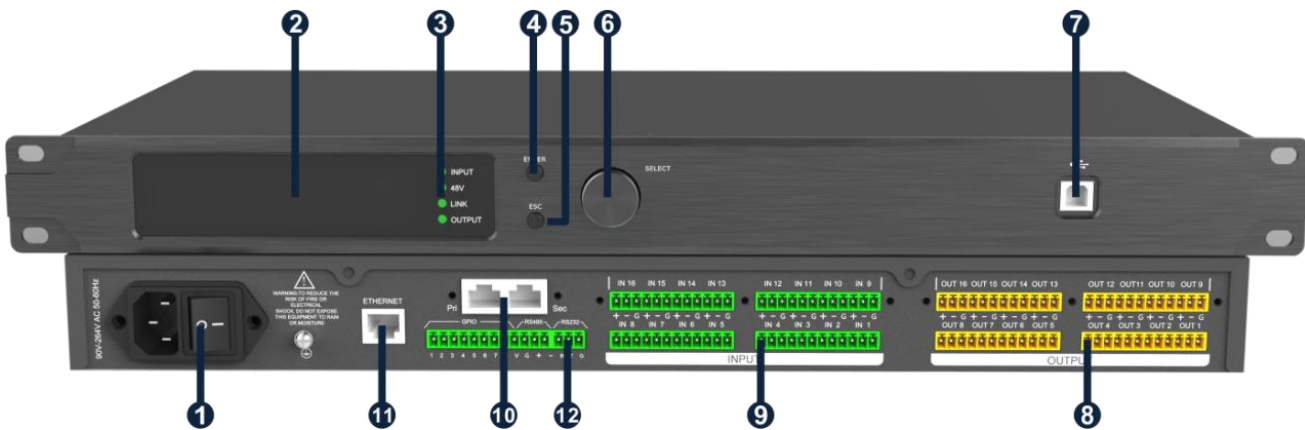
- 8 analog inputs and 8 analog outputs, each switchable between line level and mic level
- Optional Dante network audio: 4×4 (DP8084 or DP1684) or 16×16 (DP8016 or DP1686)
- 48V phantom power available for each mic- level input; 40- step sensitivity adjustment (1 dB per step)
- Built-in AFC (feedback cancellation) with two selectable levels
- Built-in AEC (echo cancellation) for remote video- conference systems
- Built-in ANC (noise cancellation) to optimize local meeting systems
- Built-in AGC (automatic gain control) to enhance microphone signals in complex scenarios
- 8 PEQ on inputs and 8 PEQ on outputs; supports LSLV, HSLV, all- pass, phase, elliptic, low- pass and high- pass filters; HPF and LPF available with Butterworth, Bessel, or Linkwitz- Riley responses
- Supports auto mixing and matrix mixing
- Supports camera tracking compatible with most camera control protocols
- Supports preset archiving and locking, helping to hide configuration parameters in projects
- Control connections: USB or TCP/IP; also equipped with RS232 and RS485 for central control, plus GPIO for external control
- User-friendly Mconsole software for Windows 7/8/10/11
- Optional touch- screen wall control panel (RS485 wired control)

## Specifications

Model	DP8008 / DP8084 / DP8016
<b>1. DSP Process</b>	
Process:	32bit float point DSP 400MHz
System delay:	<3ms
AD/DA:	24-bit 48KHz
<b>2. Analog Audio Inputs and Outputs</b>	
Input:	8 channels balanced. Line/Mic level to switch
Input interface:	3.81mm phoenix, 12-pin
Input impedance:	16K $\Omega$
Max input level:	17dBu/Line; -3dBu/Mic@20dB sensitivity
Phantom supply:	+48V DC, 5.5mA in each input channel
Output:	8 channels balanced. Line level
Output interface:	3.81mm phoenix, 12-pin
Output impedance:	150 $\Omega$
<b>3. Audio Performance Specifications</b>	
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
<b>4. Connect Ports and Indicators</b>	
USB:	Type A-B, free driver
RS232:	Serial port communication
TCP/IP interface:	RJ-45
Indicator light:	Input signal, +48V, Link, Output signal
<b>5. Electrical and Physical</b>	
Supply:	AC 90V ~ 264V 50/60 Hz
Products Dimensions	483mmx265mmx44.5mm
Packaged Dimensions	540mmx390mmx80mm
Net Weight	3.3kg
Packaged Weight	4.4kg
Operating temperature:	-20 $^{\circ}$ C~80 $^{\circ}$ C

Model	DP1680 / DP1684 / DP1686
<b>1. DSP Process</b>	
Process:	32bit float point DSP 400MHz
System delay:	<3ms
AD/DA:	24-bit 48KHz
<b>2. Analog Audio Inputs and Outputs</b>	
Input:	16 channels balanced. Line/Mic level to switch
Input interface:	3.81mm phoenix, 12-pin
Input impedance:	16K $\Omega$
Max input level:	17dBu/Line;

	-3dBu/Mic@20dB sensitivity
Phantom supply:	+48V DC, 5.5mA in each input channel
Output:	8 channels balanced. Line level
Output interface:	3.81mm phoenix, 12-pin
Output impedance:	150Ω
<b>3. Audio Performance Specifications</b>	
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
<b>4. Connect Ports and Indicators</b>	
USB:	Type A-B, free driver
RS232:	Serial port communication
TCP/IP interface:	RJ-45
Indicator light:	Input signal, +48V, Link, Output signal
<b>5. Electrical and Physical</b>	
Supply:	AC 90V~264V 50/60 Hz
Products Dimensions	483mmx265mmx44.5mm
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1. Power connector
2. Display
3. Indicator (input, +48V, link, output)
4. Enter (display menu)
5. ESC (display menu)
6. Select (display menu)
7. USB control and audio
8. Output channels (Line level)
9. Input channels (Line/Mic level)
10. Dante network audio (This interface is only

- available for DP8084 DP8016 DP1684 DP1686)
11. Ethernet (TCP/IP) control support external control system
12. -GPIO control (8 channel)
  - RS485 control
  - RS232 control
- support external control system