DP8050

8-In 8-Out Professional AI Audio Processor

Description

This device is an 8-in 8-out automatic mixing media matrix with 8 analog inputs and 8 analog outputs, and a variety of DSP functions such as built-in feedback suppression, automatic mixing, matrix mixing, equalizer, crossover, compressor, AGC (Automatic Gain Control), AEC (Acoustic Echo Cancellation), and ANC (Active Noise Control). It is controlled by the software via USB drive-free connection to a computer, and connected to the central control via RS232, RS485, and TCP/IP for remote control, suitable for a variety of applications for sound reinforcement engineering.
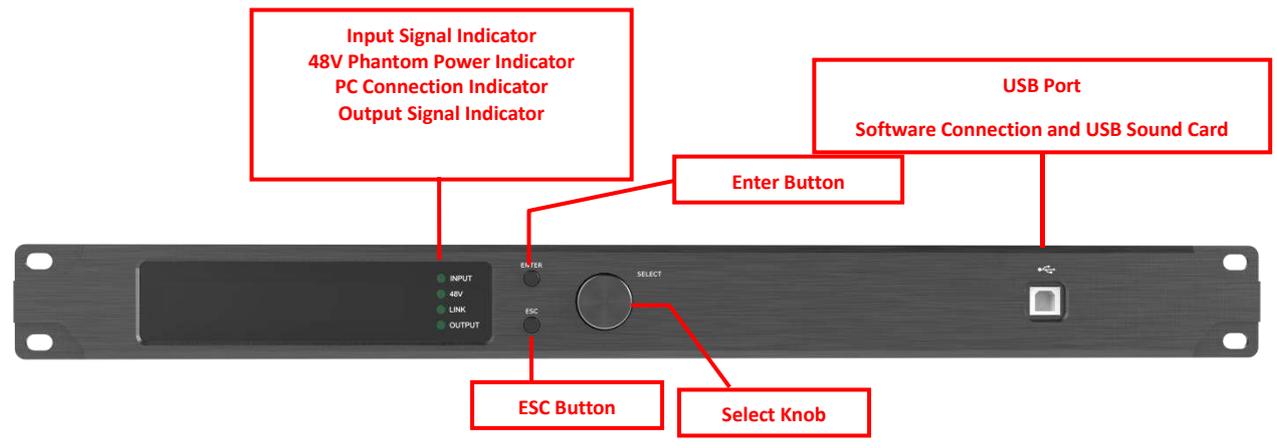
Features

- With 8 analog balanced inputs and 8 analog balanced outputs, as well as a maximum input and output of 17dBu (5.48Vrms), undistorted.
- With 48V phantom power per input channel.
- With microphone amplifier per input channel, with gain adjustable from 0~40dB in 1dB steps.
- With stereo USB sound card function for playback and recording.
- With USB port for computer software control and USB sound card transfer function.
- With RS232 serial port for computer software control and central control function.
- With RS485 serial port for computer software control and central control function.
- With network interface for computer software control and central control function, managing multiple devices simultaneously through network connection.
- With 8 external GPIO ports.
- With an LCD screen, allowing you to configure a range of functions such as device name, device presets, device IP, input volume, output volume and input mode, and to check the device version.
- With a variety of DSP functions, such as AFC (Adaptive Feedback Cancellation), AEC (Acoustic Echo Cancellation), ANC (Active Noise Cancellation), AGC (Automatic Gain Control), AUTO MIX (Automatic Mixing), MATRIX MIX (Matrix Mixing), Noise Gate, PEQ (Parametric Equalizer), Delay, FIR Filter, High and Low Pass Crossover, Compressor, and Limiter.
- With 15-band PEQ for the input and 10-band PEQ for the output.
- With 2000ms delay per input channel and 2000ms delay per output channel.
- With 512 Tap FIR per output channel.
- With voice activation function (camera tracking) per input channel, support camera control with PELCO-D, PELCO-P, and VISCA protocols.

- With 60 preset memory points.
- Support control box control.
- Support Android APP network control.
- Support archive locking and setting parameters hiding to ensure the technical security of the project.
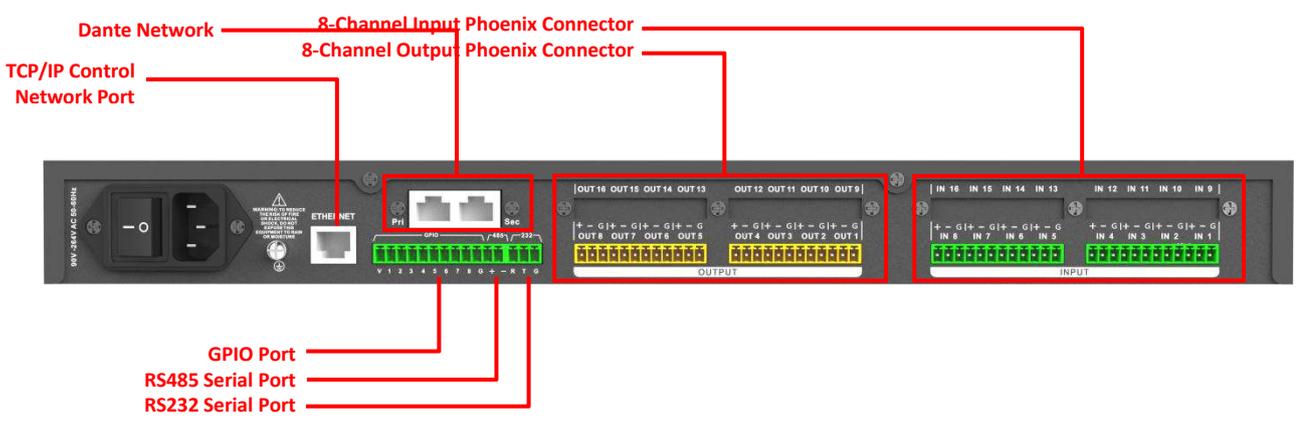
Specifications

Model	DP8050
DSP Chip	
Signal Processing	32bit float point dsp 400Mhz
Audio System Delay	< 3ms
Digital-to-Analog Conversion	24-bit
Sampling Rate	48KHz
Analog Audio Input/Output	
Input Channel	8 balanced inputs, Mic/line level
Audio Connector	3.81 mm Phoenix plug, 12-pin
Input Impedance	16kΩ
Maximum Input Level	17dBu (5.48Vrms)/Line; -3dBu (0.54Vrms)/Mic@20dB Gain
Phantom Power	+48VDC, 5.5mA per channel
Output Channel	8 balanced outputs, line level
Output Impedance	150Ω
Audio Performance Specifications	
Frequency Response	20Hz-20kHz (±0.5dB)/Line, input 0dBu (0.775Vrms) 20Hz-20kHz (±1.5dB)/Mic, 20dB gain, input -10dBu (0.245Vrms)
THD+N	-90dB (@17dBu, 1kHz, A-wt)/Line -90dB (@-6dBu, 1kHz, A-wt)/Mic, 20dB gain
S/N Ratio	110dB (@17dBu, 1kHz, A-wt)/Line 100dB (@-6dBu, 1kHz, A-wt)/Mic, 20dB gain
Communication Ports and Indicators	
USB	Type-B 2.0, drive-free
RS232	Serial port communication
TCP/IP Network Port	RJ-45
Indicator Light	Link, +48V, input and output audio signals
Electrical and Physical Parameters	
Power Supply	90V-264V AC 50-60 Hz
Operating Temperature	-20℃~60℃
Dimensions (W*D*H)	483mm*265mm*44.5mm
Package Dimensions (W*D*H)	540*390*80
Overall Package Dimensions (W*D*H)	560*430*425
Net Weight	3.3KG
Gross Weight	4.4KG
Overall Gross Weight (5 Units)	23KG

Front Panel

Input Signal Indicator
48V Phantom Power Indicator
PC Connection Indicator
Output Signal Indicator

USB Port

Software Connection and USB Sound Card

Enter Button

INPUT
48V
LINK
OUTPUT

ENTER
ESC
SELECT

ESC Button

Select Knob

Rear Panel

Dante Network

8-Channel Input Phoenix Connector

8-Channel Output Phoenix Connector

TCP/IP Control Network Port

ETHERNET   Pri   Sec

GPIO   485   232

OUT 16 OUT 15 OUT 14 OUT 13   OUT 12 OUT 11 OUT 10 OUT 9

+ − G|+ − G|+ − G|+ − G   + − G|+ − G|+ − G|+ − G
OUT 8 OUT 7 OUT 6 OUT 5   OUT 4 OUT 3 OUT 2 OUT 1

OUTPUT

IN 16 IN 15 IN 14 IN 13   IN 12 IN 11 IN 10 IN 9

+ − G|+ − G|+ − G|+ − G   + − G|+ − G|+ − G|+ − G
IN 8   IN 7   IN 6   IN 5   IN 4   IN 3   IN 2   IN 1

INPUT

GPIO Port
RS485 Serial Port
RS232 Serial Port

Machine Dimension Drawings

TOP VIEW

483.00 mm

44.00 mm

FRONT VIEW

264.00 mm

RIGHT VIEW

443.00 mm

BACK VIEW