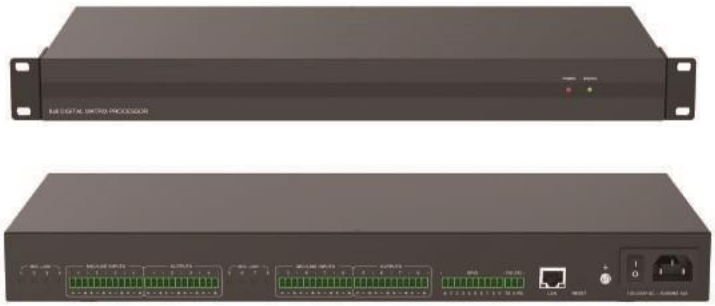
KA226 8X8 DIGITAL AUDIO PROCESSOR – 1U CHASIS



Introduction

This digital audio processor is typically used for video conference, distant learning, and telemedicine. It features 8-ch MIC/linear inputs, and 8-ch linear outputs. The product can process audio signals with algorithms, such as, full-band Adaptive Echo Cancellation (AEC), Adaptive Noise Suppression (ANS), Automatic Gain Control (AGC), and Auto Mixer, to output a clear, clean and resonant sound with high Signal-to-Noise ratio. Concise but intelligent, the processor is designed to be applied in scenarios without additional software assistance for debugging. It is ready to use after installation, perfect for project implementation and testing. The product can be applied in a diverse range of installations and applications across industries, such as, smart system integration in small-medium sized conference room, instruction recording and distance teaching in education, court trial recording and virtual court trial in judiciary, surgery recording and video consultation in healthcare service, and command center establishment in governmental projects.

Features

- Provide 8-ch balanced MIC/linear inputs and 8-ch balanced linear outputs
- Support adaptive feedback suppression function
- Support the full-band adaptive acoustic echo cancellation technology
- Dynamic adaptive noise reduction technology is provided to reduce noise with signal level up to 18dB

- Auto Mixer function is provided to set the order of priority when multiple microphones are input at one time
- Inclusive of Digital signal processing modules such as Expander, Equalizer, Compressor,

Auto Gain Control, Limiter, High Pass Filter, Low Pass Filter and Delay

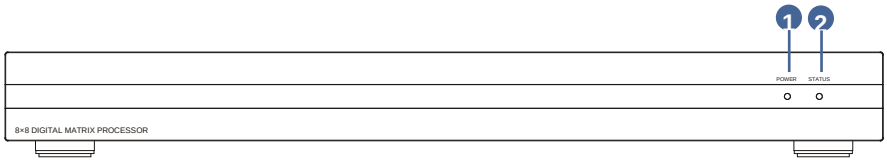
- Capable to switch matrix routings
- Support volume control, meter, scene control, etc.
- 48V phantom power supply for 8-ch MIC inputs
- 48KHz sampling rate, 24-bit for A/D or D/A conversion
- Support 8-ch programmable GPIO function
- Compatible to run on Win 7 and Win 10, with standard RJ45 interface control
  - ☆ Support RS-232 serial commands control

Specifications

Technical	
Amplitude-frequency (20Hz~20KHZ@+4dBu)	±0.2dB
THD+N (1KHZ@+4dBu)	≤ 0.01%
SNR (linear input)	≥ 90dB
Dynamic Range	≥ 100dB
Channel Level Difference	±0.5dB
Channel Isolation	≥ 80dB
Max Input Level	20dBu
Max MIC Gain	40dB
Input Impedence	20KΩ
Output Impedence	300Ω
Sampling Frequency	48KHZ
A/D and D/A Conversion	24Bit
Phantom Power	+48 VDC
Connection	
Inputs	8 × Balanced MIC/LINE [3-pin phoenix connector] or 4 × Stereo Audio [3-pin phoenix connector]
Outputs	8 × Balanced LINE [3-pin phoenix connector] or 4 × Stereo audio [3-pin phoenix connector]
Controls	1 × LAN [RJ45] 1 × RS-232 [3-pin phoenix connector] 8 × GIPO [10-pin phoenix connector]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	440mm (W)×250mm (D)×45mm (H)
Weight	3.3kg
Power Supply	AC 100 - 240V 50/60Hz
Power Consumption	9W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

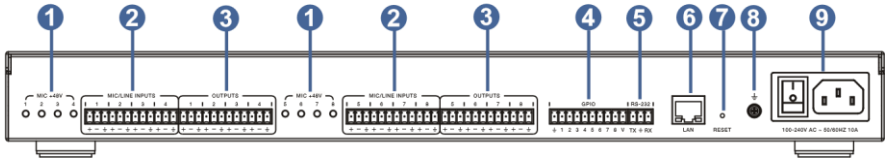
Operation Controls and Functions

Front Panel



No.	Name	Function Description
1	POWER LED	When the device is powered on, the red LED will light on.
2	STATUS LED	When the device runs in normal, the green STATUS LED will flash.

1.1 Rear Panel



No.	Name	Function Description
1	MIC +48V	8 phantom power supply indicators.
2	MIC/LINE INPUTS	8-ch balanced MIC/linear inputs, used for connecting audio source devices via phoenix connectors.
3	OUTPUT	8-ch balanced linear outputs, used for connecting Amplifier or Speaker via phoenix connectors.
4	GPIO	8-ch programmable GPIO interfaces.
5	RS-232	Connect to PC or control system for transmitting RS-232 control commands.
6	LAN	Standard RJ45 interface for network connection.
7	RESET	Used for reseting the audio processor.
8	GND	Connect outer housing to the ground.
9	Power Switch & Power Port	Power switch and AC 100-240V power input port.

Application Example

The audio processor supports microphone input, computer, DVD, mixer and other audio source input. It can be used in combination with video conference terminal, recording and broadcasting system, and mixing console. The following figure shows the general connection diagram. Users can connect the devices based on actual requirements.


Terminal
Recording System
Audio
Source
PC
Analog Audio
Signal
Network Control
Signal
Amplifier and
Loudspeaker