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CRETONE AUDIO

COP Series

Open Architecture Digital Audio Processor

Open a New Chapter in China's Audio DSP

Audio Algorithm Symbiosis Platform

Exclusive custom native UI

Diversified OEM/ODM

CATALOGUE

Product Overview

COP is a milestone achievement in audio processors independently developed by Cretone Audio Technology, delivering breakthroughs in both hardware and software while creating multi-dimensional core value for users in professional installation audio systems.

This series consists of audio processing servers, various types of interface cards, and expansion interface units. The COP8000I, II, III, and COP 128N are four models of audio processing servers, each designed to accommodate audio systems of different scales. The supporting COP 8000I/O interface unit further expands input and output capabilities, enhancing system scalability.

Thanks to its high processing efficiency and flexible adaptability, the series is widely used in medium to large-scale venues such as corporate meetings, exhibition centers, transportation hubs, hotels, and commercial complexes. It meets the professional audio requirements of highly complex large-scale integrated projects and dynamically changing scenarios requiring flexible control.

Expandable Card Design, Flexibly Adapts to Project Requirements

The COP series audio processors adopt a expandable card design, allowing flexible configuration based on project-specific needs. This enables rapid hardware expansion and adaptation to meet the application demands of various scenarios.

Swappable Hardware Interfaces

The hardware interfaces adopt a modular card design, supporting tool-free plug-and-play operations. This enables rapid component configuration and replacement, reducing device maintenance time and costs.

Distributed Network Deployment

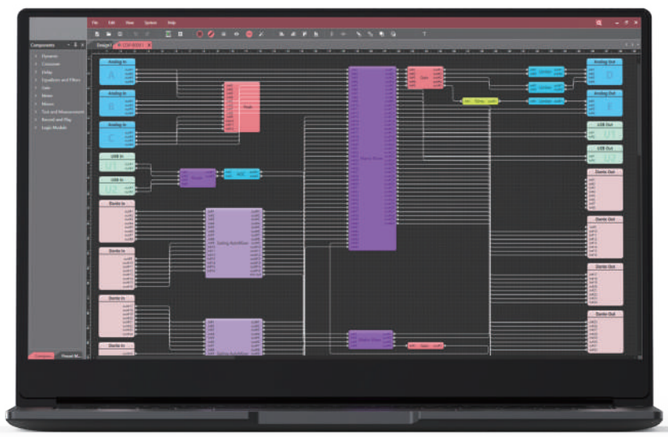
Distributed deployment of I/O interface units facilitates the establishment of control and Dante audio networks. This reduces wiring complexity, allows flexible system scaling, and effortlessly addresses implementation challenges across diverse projects.

Upgradable Audio Solutions

The audio system reserves space for upgrades and modifications. Functions can be enhanced as needed without replacing the entire setup, lowering long-term project operational and maintenance costs.

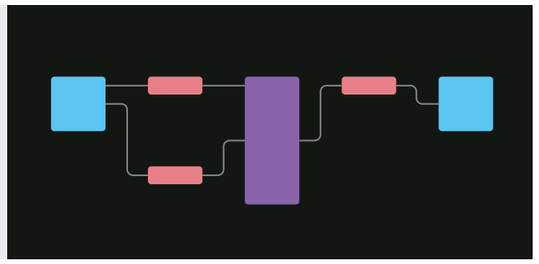
Open Architecture Software, Built for Value Creation

COP Audio Processors leverage the flexibility of an open software architecture to quickly respond to diverse on-site requirements, helping engineers create and deliver value to users more efficiently.



Open Programming Engine

The open programming software supports multi-signal routing and diverse control nodes, designed for large-scale projects and complex scenarios. It provides ample freedom for custom signal chain design, fostering innovation in functional combinations and enabling on-site tailored signal processing methods.



Graphical Processing Chain

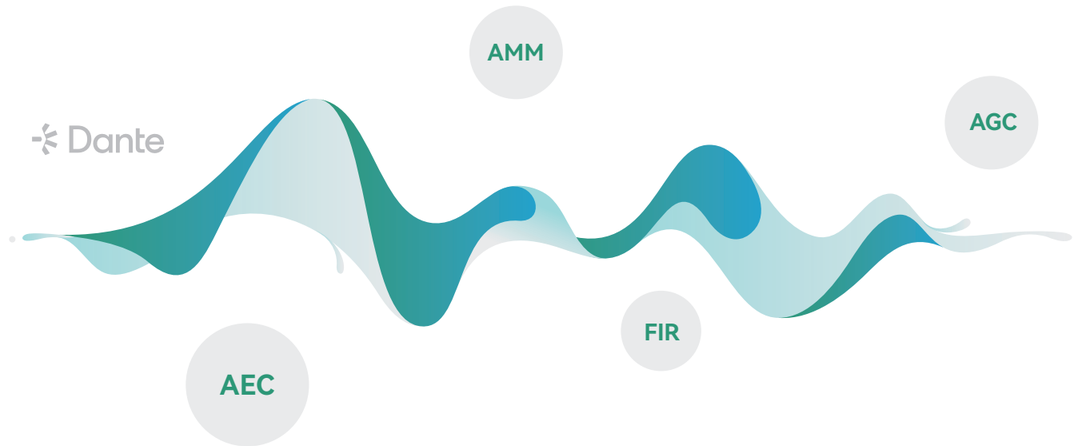
Extensive graphical DSP processing modules allow intuitive audio chain connections. Engineers can optimize processing effects while conserving resources, offering robust support for visualizing processing structures in large-scale systems.

Powerful Shared Computing Resources

Multiple processors can be edited and managed under a single project file, supporting independent storage and recall of 999+ preset scenes. This meets both shared parallel processing demands in large-scale environments and enables efficient resource allocation and utilization.

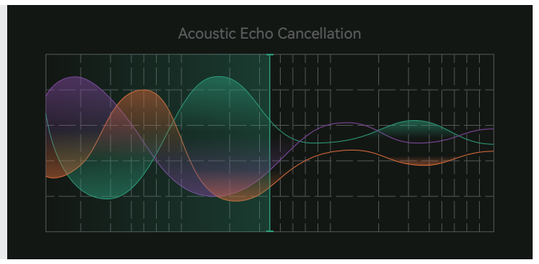
Unleashing DSP Potential for Continuous Audio Enhancement

Relying on forward-thinking design and iterative validation, COP audio processors clear obstacles in audio applications through a continuously evolving multi-dimensional algorithm platform.



Multi-Channel Echo Cancellation

Adaptive filtering AEC technology processes and eliminates echoes independently across multiple channels. Cross-platform multi-party meetings feel natural and seamless, as if all participants are in the same room.



Natural Local Sound Reinforcement

Focused on real-world sound reinforcement needs, algorithms such as EQ, FIR, and automatic gain control can be freely combined at various nodes in the signal chain to refine sound field adjustment. Even in large venues, communication remains clear and natural.

Cascadable Network Audio Hub

Built on Dante connectivity, the system forms a centralized processing core. Its 128-channel large-scale auto-mixer effortlessly handles speaking scenarios with hundreds of participants. The 16-channel media player ensures comprehensive audio coverage across complex venues with ease.

COP8000I

Modular Digital Audio Processor
COP Series

FC CE cec RoHS

The server features a 2U chassis design with 8 card slots, allowing flexible selection of interface cards to adjust and expand audio configurations. It incorporates dual 2×2 USB sound cards, supports 128×128 channels of network transmission, and delivers efficient audio distribution and processing capabilities to meet professional requirements.
Support for Lua script logic processing, combined with 8×8 GPIO and RS232/RS485 interfaces, enables flexible functional expansion. The system also includes dual-host backup switching and mirror synchronization mode (synchronizing master-slave device status via heartbeat signals), paired with dual redundant power supplies, ensuring comprehensive system safety, reliability, and uninterrupted operation.

Product Features

ADI SHARC 21569 x 2
processing chips

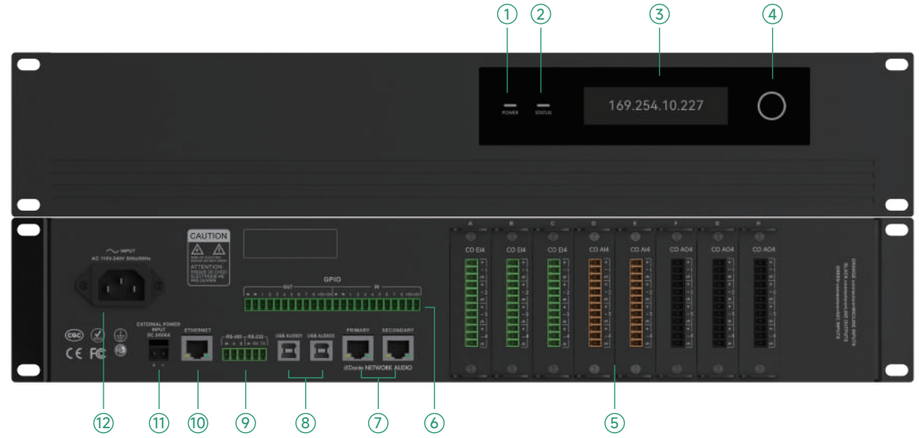
Dante

128 x 128 Dante I/O
network audio channels

8 expansion card slots, with up to 32 channels of AEC processing capability per unit

16-channel multi-track audio player with 64GB media storage

Dual 2×2 USB sound cards, dual redundant power supplies



① **Power Indicator**: Solid light indicates normal power supply
② **Operation Status Light**: Slow flashing indicates normal operation
③ **OLED Display**: Shows processor settings and status information
④ **Touch Buttons**: Used to navigate OLED display pages
⑤ **Audio I/O Card Slots (A-H)**: 8 slots for audio interface cards, supporting up to 32 analog audio channels to meet various scenario needs
⑥ **GPIO**: 8×8 GPIO for logic control
⑦ **Dante Ports (Primary & Backup)**: Redundant Gigabit Dante audio transmission ports
⑧ **USB Ports**: Two 2×2 USB sound cards for connecting to PCs for remote meetings, playback, or recording
⑨ **RS-232/485**: One bidirectional RS-232 and one RS-485 serial control channel for third-party command control and interoperability
⑩ **ETHERNET**: Ethernet port for computer connection, enabling processor configuration via host software
⑪ **EXTERNAL POWER INPUT**: Backup power input interface, DC 24V/2A supply
⑫ **Power Interface**: AC 110-240V 50Hz/60Hz power supply

Specifications

Dante Network Channel Capacity	128×128	Maximum Input Level	+22dBu
Audio Input/Output Channels	8 audio I/O card slots	Ports	RS232/485x1, GPIO8x8, RJ45x1, USB-Bx2
USB Storage	64G	Voltage	110-240VAC, 50Hz
Dynamic Range	>118dB	Current	4A max @ 100VAC
Frequency Response	20Hz-20kHz	Operating Temperature Range	0-45℃
Input Impedance	5.5kΩ	Humidity	85% max relative humidity
Signal-to-Noise Ratio	112dB	Product Dimensions	483×88×364mm
Total Harmonic Distortion	≤0.002%	Shipping Package Dimensions	618×153×473mm
Common-Mode Rejection Ratio	>91dBu	Shipping Weight	8.1kg

COP8000II

Modular Digital Audio Processor
COP Series

FC CE CEC RoHS

The server features a 2U chassis design with 8 card slots, allowing flexible interface card selection to adjust and expand audio configurations as needed. It supports 64×64 channels of network transmission, delivering efficient audio distribution and processing capabilities to meet professional scenario requirements.
With support for Lua script logic processing, combined with 8×8 GPIO and RS232/RS485 interfaces, the system enables versatile functional expansion. It also incorporates dual-host backup switching and mirror synchronization mode (synchronizing master-slave device status via heartbeat signals), paired with dual power redundancy, ensuring comprehensive system safety, reliability, and uninterrupted operation.

Product Features

ADI SHARC 21569 x 2
processing chips

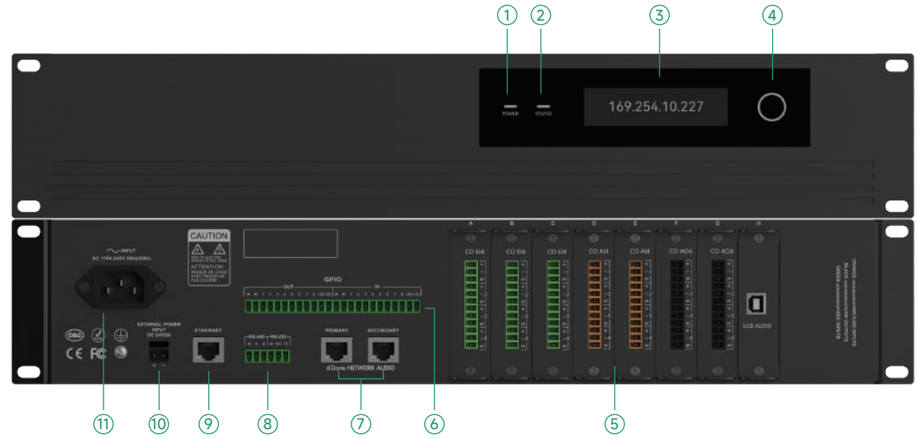
Dante

64 x 64 Dante I/O
network audio channels

8 expansion card slots, with up to 32 channels of AEC processing capability per unit

16-channel multi-track audio player with 64GB media storage

Dual redundant power supplies



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③ **OLED Display**: Shows processor settings and status information
④ **Touch Buttons**: Used to navigate OLED display pages
⑤ **Audio I/O Card Slots (A-H)**: 8 slots for audio interface cards, supporting up to 32 analog audio channels to meet various scenario needs
⑥ **GPIO**: 8×8 GPIO for logic control
⑦ **Dante Ports (Primary & Backup)**: Redundant Gigabit Dante audio transmission ports
⑧ **RS-232/485**: One bidirectional RS-232 and one RS-485 serial control channel for third-party command control and interoperability
⑨ **ETHERNET**: Ethernet port for computer connection, enabling processor configuration via host software
⑩ **EXTERNAL POWER INPUT**: Backup power input interface, DC 24V/2A supply
⑪ **Power Interface**: AC 110-240V 50Hz/60Hz power supply

Specifications

Dante Network Channel Capacity	64×64	Maximum Input Level	+22dBu
Audio Input/Output Channels	8 audio I/O card slots	Ports	RS232/485x1, GPIO8x8, RJ45x1, USB-Bx2
USB Storage	64G	Voltage	110-240VAC, 50Hz
Dynamic Range	>118dB	Current	4A max @ 100VAC
Frequency Response	20Hz-20kHz	Operating Temperature Range	0-45℃
Input Impedance	5.5kΩ	Humidity	85% max relative humidity
Signal-to-Noise Ratio	112dB	Product Dimensions	483×88×364mm
Total Harmonic Distortion	≤0.002%	Shipping Package Dimensions	618×153×473mm
Common-Mode Rejection Ratio	>91dBu	Shipping Weight	8.1kg

COP8000III

Modular Digital Audio Processor
COP Series

FC CE cec RoHS

The server features a 2U chassis design with 8 card slots, allowing flexible interface card selection to adjust and expand audio configurations as needed. It supports 32×32 channels of network transmission, delivering efficient audio distribution and processing capabilities to meet professional scenario requirements.
With support for Lua script logic processing, combined with 8×8 GPIO and RS232/RS485 interfaces, the system enables versatile functional expansion. It also incorporates dual-host backup switching and mirror synchronization mode (synchronizing master-slave device status via heartbeat signals), paired with dual power redundancy, ensuring comprehensive system safety, reliability, and uninterrupted operation.

Product Features

ADI SHARC 21569 x 2
processing chips

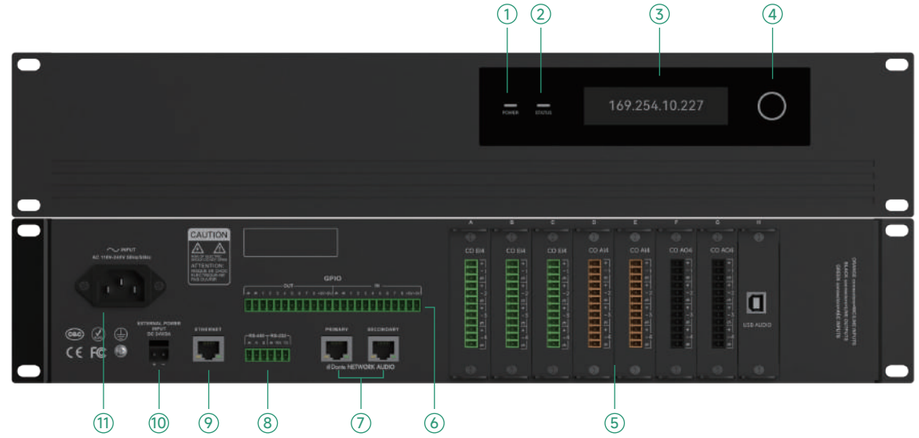
Dante

32 x 32 Dante I/O
network audio channels

8 expansion card slots, with up to 32 channels of AEC processing capability per unit

16-channel multi-track audio player with 64GB media storage

Dual redundant power supplies



① **Power Indicator**: Solid light indicates normal power supply
② **Operation Status Light**: Slow flashing indicates normal operation
③ **OLED Display**: Shows processor settings and status information
④ **Touch Buttons**: Used to navigate OLED display pages
⑤ **Audio I/O Card Slots (A-H)**: 8 slots for audio interface cards, supporting up to 32 analog audio channels to meet various scenario needs
⑥ **GPIO**: 8×8 GPIO for logic control
⑦ **Dante Ports (Primary & Backup)**: Redundant Gigabit Dante audio transmission ports
⑧ **RS-232/485**: One bidirectional RS-232 and one RS-485 serial control channel for third-party command control and interoperability
⑨ **ETHERNET**: Ethernet port for computer connection, enabling processor configuration via host software
⑩ **EXTERNAL POWER INPUT**: Backup power input interface, DC 24V/2A supply
⑪ **Power Interface**: AC 110-240V 50Hz/60Hz power supply

Specifications

Dante Network Channel Capacity	32×32	Maximum Input Level	+22dBu
Audio Input/Output Channels	8 audio I/O card slots	Ports	RS232/485x1, GPIO8x8, RJ45x1, USB-Bx2
USB Storage	64G	Voltage	110-240VAC, 50Hz
Dynamic Range	>118dB	Current	4A max @ 100VAC
Frequency Response	20Hz-20kHz	Operating Temperature Range	0-45℃
Input Impedance	5.5kΩ	Humidity	85% max relative humidity
Signal-to-Noise Ratio	112dB	Product Dimensions	483×88×364mm
Total Harmonic Distortion	≤0.002%	Shipping Package Dimensions	618×153×473mm
Common-Mode Rejection Ratio	>91dBu	Shipping Weight	8.1kg

COP128N

Modular Digital Audio Processor
COP Series

FC CE cec RoHS

The processor adopts a compact 1U chassis design with 12-input/8-output analog audio interfaces. It features 1 expansion card slot for optional interface cards as needed. Equipped with dual 2×2 USB sound cards, it supports 128×128 channels of network transmission, delivering efficient audio distribution and processing capabilities to meet professional scenario requirements.
Support for Lua script logic processing, combined with 8×8 GPIO and RS232/RS485 interfaces, enables flexible functional expansion. The system also includes dual-host backup switching and mirror synchronization mode (synchronizing master-slave device status via heartbeat signals), paired with dual power redundancy, ensuring comprehensive system safety, reliability, and uninterrupted operation.

Product Features

ADI SHARC 21569 x 2
processing chips

Dante

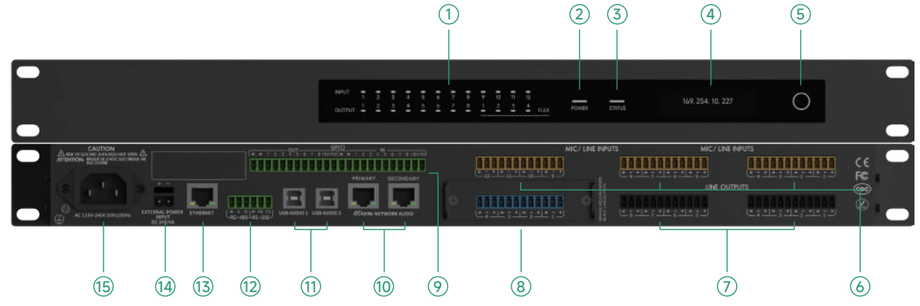
64 x 64 Dante I/O
network audio channels

12× balanced Mic/Line inputs, 8× balanced outputs,
1× expansion card slot

12×AEC @ 200 ms
18×AEC @ 100 ms

16-channel multi-track audio player
with 64GB media storage

Dual redundant power supplies



① **Level indicators**: Colors reflect signal level intensity
② **Power indicator**: Solid light indicates normal power supply
③ **Operation status light**: Slow flashing indicates normal operation
④ **OLED display**: Shows processor settings and status information
⑤ **Touch buttons**: Cycle through selections on the OLED screen
⑥ **Analog Mic/Line Inputs**: 12 analog input channels
⑦ **Analog Line Outputs**: 8 analog output channels
⑧ **Audio I/O Expansion Card Slot**: For audio interface cards to meet various scenario needs
⑨ **GPIO**: 8×8 GPIO for logic control
⑩ **Dante Ports (Primary & Backup)**: Redundant Gigabit Dante audio transmission ports
⑪ **USB Ports**: Two 2×2 USB sound cards for connecting to PCs for remote meetings, playback, or recording
⑫ **RS-232/485**: One bidirectional RS-232 and one RS-485 serial control channel for third-party command control and interoperability
⑬ **ETHERNET**: Ethernet port for computer connection, enabling processor configuration via host software
⑭ **EXTERNAL POWER INPUT**: Backup power input interface, DC 24V/2A supply
⑮ **Power Interface**: AC 110-240V 50Hz/60Hz power supply

Specifications

Dante Network Channel Capacity	128×128	Maximum Input Level	+22dBu
Audio Input/Output Channels	12x8, 1 audio card slot	Ports	RS232/485x1, GPIO8x8, RJ45x1, USB-Bx2
USB Storage	64G	Voltage	110-240VAC, 50Hz
Dynamic Range	>118dB	Current	4A max @ 100VAC
Frequency Response	20Hz-20kHz	Operating Temperature Range	0-45°C
Input Impedance	5.5kΩ	Humidity	85% max relative humidity
Signal-to-Noise Ratio	112dB	Product Dimensions	483×88×364mm
Total Harmonic Distortion	≤0.002%	Shipping Package Dimensions	618×153×473mm
Common-Mode Rejection Ratio	>91dBu	Shipping Weight	4.9kg

COP8000I/O

Modular Digital Audio Processor
COP Series

FC CE CEC RoHS

The interface unit adopts a 2U chassis design with 8 card slots, allowing flexible interface card selection to adjust and expand audio configurations as needed. It supports 64×64 channels of network transmission for audio distribution and routing. With 8×8 GPIO and RS232/RS485 interfaces, it enables versatile functional expansion. The unit also features dual-device backup switching and mirror synchronization mode (synchronizing master-slave device status via heartbeat signals), combined with dual power redundancy, ensuring uninterrupted audio input and output for the system.

Product Features

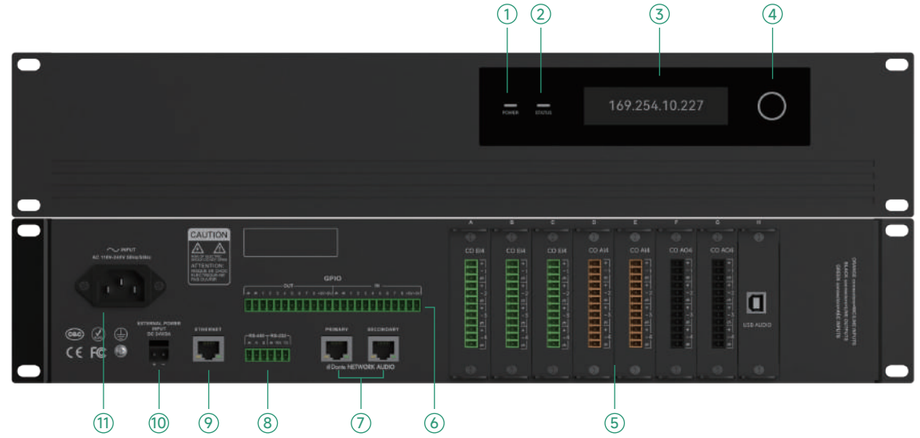
Dante

64 x 64 Dante I/O network audio channels

8 expansion card slots, with up to 32 channels of AEC processing capability per unit

16-channel multi-track audio player with 64GB media storage

Dual redundant power supplies



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③ **OLED Display**: Shows processor settings and status information
④ **Touch Buttons**: Used to navigate OLED display pages
⑤ **Audio I/O Card Slots (A-H)**: 8 slots for audio interface cards, supporting up to 32 analog audio channels to meet various scenario needs
⑥ **GPIO**: 8×8 GPIO for logic control
⑦ **Dante Ports (Primary & Backup)**: Redundant Gigabit Dante audio transmission ports
⑧ **RS-232/485**: One bidirectional RS-232 and one RS-485 serial control channel for third-party command control and interoperability
⑨ **ETHERNET**: Ethernet port for computer connection, enabling processor configuration via host software
⑩ **EXTERNAL POWER INPUT**: Backup power input interface, DC 24V/2A supply
⑪ **Power Interface**: AC 110-240V 50Hz/60Hz power supply

Specifications

Dante Network Channel Capacity	64×64	Maximum Input Level	+22dBu
Audio Input/Output Channels	8 audio I/O card slots	Ports	RS232/485x1, GPIO8x8, RJ45x1, USB-Bx2
USB Storage	64G	Voltage	110-240VAC, 50Hz
Dynamic Range	>118dB	Current	4A max @ 100VAC
Frequency Response	20Hz-20kHz	Operating Temperature Range	0-45℃
Input Impedance	5.5kΩ	Humidity	85% max relative humidity
Signal-to-Noise Ratio	112dB	Product Dimensions	483×88×364mm
Total Harmonic Distortion	≤0.002%	Shipping Package Dimensions	618×153×473mm
Common-Mode Rejection Ratio	>91dBu	Shipping Weight	8.1kg

CO AI4

4-Channel Microphone/Line Input Card

Product Overview

Provides 4 channels of microphone/line input. Each channel supports +48V phantom power. Balanced input with 0~54dB pre-amplification gain. Software controls per channel include: Pre-amplification gain, Phantom power, Level meter, Digital gain level control, Mute, Polarity reversal.

Specifications

Frequency Response	20Hz-20kHz @ +4dBu ±0.02dB
Dynamic Range	118dB
Input Gain Range (6dB steps)	0-54dB
Input Impedance	5.5KΩ
Total Harmonic Distortion (THD+N)	≤0.001%
Interface	12-pin 3.56mm Euroblock terminal

CO EI4

4-Channel AEC Microphone/Line Input Card

Product Overview

Provides 4 channels of microphone/line input. Each channel features independent reference-based acoustic echo cancellation (AEC) with a tail length of up to 300ms. Comprehensive software controls per channel, including configurable direct output capability for parallel audio processing in remote conferences and local sound reinforcement.

Specifications

Frequency Response	20Hz-20kHz @ +4dBu ±0.02dB
Dynamic Range	118dB
Input Gain Range (6dB steps)	0-54dB
Input Impedance	5.5KΩ
Total Harmonic Distortion (THD+N)	≤0.001%
Interface	12-pin 3.56mm Euroblock terminal

CO AO4

4-Channel Line Output Card

Product Overview

Provides 4 channels of balanced line output. Software controls per channel include: Level meter, Digital gain level control, Mute, Polarity reversal. Maximum output level supports three selectable ranges: +10dBu, +18dBu, and +22dBu, adaptable to downstream devices to maintain system gain structure.

Specifications

Frequency Response	±0.02dB
Dynamic Range	118dB
Noise Floor (A-weighted)	-94dBu
Maximum Output Level	+22dBu / -10dBV (selectable)
Output Impedance	102Ω
Total Harmonic Distortion (THD+N)	≤0.001%
Crosstalk: 0dB gain, 1kHz	-112dB
Interface	12-pin 3.56mm Euroblock terminal

CO USB2

2-Channel USB Card

Product Overview

Utilizes a Type-B USB interface to provide 2x2 bidirectional audio I/O channels for the system. Connects to a PC for audio transmission functions such as recording and video conferencing. Software controls include: Level meter, Digital gain level control, Mute, Polarity reversal. Includes connection status indicator.

Specifications

Sampling Rate	48kHz
Bit Depth	24bit
Interface	USB Type-B

NCP-4

4-inch Android Touch Screen

Product Overview

A 4-inch Android touch panel designed for wall or surface mounting. Through the processor's user interface editor, it can be customized for specific user scenarios, supporting central control functions such as volume control, mute, scene recall, and matrix switching.

Specifications	
Size	4 inches
Resolution	480x480
Control Protocol	UDP
System	Android 10
Main Chip	Quad-core Cortex-A53
Power Supply	DC 12V 1.5A & 802.3af PoE
Connection Port	RJ-45
Power Consumption	<100mW
Color	Gray
Cut-out Dimensions (W×H×D)	87.2x87.2x40.5mm
Product Dimensions (W×H×D)	86.2x86.2x40.5mm

NCP-8

8-inch Android Touch Screen

Product Overview

An 8-inch Android touch panel designed for wall or surface mounting. Through the processor's user interface editor, it can be customized for specific user scenarios, supporting central control functions such as volume control, mute, scene recall, and matrix switching.

Specifications	
Size	8 inches
Resolution	1280x800
Control Protocol	UDP
System	Android 8.1
Main Chip	Quad-core Cortex-A17, RockChip RK3288
Memory	2GB
Storage	16G
Contrast Ratio	800：1
Aspect Ratio	16：9
Power Supply	DC 12V 1.5A & 802.3at PoE+
Connection Port	RJ-45
Color	Black
Product Dimensions (W×H×D)	212.2x147.6x31mm
Product Weight	0.7kg

AD22

Wall-Mount Dante I/O

Product Overview

By connecting to the Dante audio network, it provides 2 balanced Combo XLR microphone/line inputs and 2 balanced XLR line outputs for analog audio interfaces. Compliant with IEEE 802.3af Power over Ethernet (PoE) standards, it features three input gain levels and +48V phantom power per channel, offering convenience for audio expansion in fixed installation systems.

Specifications	
Analog Input Channels	2
Analog Output Channels	2
Dante Type	Ultimo 2
Maximum Analog Gain	20dB
Frequency Response	±0.2dB(20~20kHz)
Maximum Level	+8dBu, Balanced
THD+N	<0.002% @ 4dBu
Noise Floor	-97dBu
Input Impedance	20 kΩ
Output Impedance	100Ω
Channel Separation	100dB @ 1kHz
Power Supply	802.3af PoE
Product Dimensions (W×H×D)	110×110×50 mm

BT22D

Bluetooth to Dante

Product Overview

Connects to mobile devices such as smartphones and iPads via Bluetooth, converting the received audio into digital signals transmitted over the Dante network. Powered and transmitting audio via Ethernet cables, it eliminates concerns about transmission distance, ground loops, or other audio issues common with consumer devices. Simple to use, Bluetooth pairing and device connection can be controlled with a single touch button.

Specifications	
Bluetooth Channels	2
Dante Channels	2
Stereo Channels	2
Sampling Rate	48kHz
Bit Depth	24bit
Power Supply	802.3af PoE
Latency	<2ms

DIA2P & DIO2P - Product Overview

Using Dante I/O adapters, your favorite legacy analog audio equipment can be directly integrated with any Dante system, leveraging the interoperability, high performance, and scalability unique to networked audio. Each adapter delivers high-fidelity audio reproduction, ultra-low latency, and sample-accurate synchronization across the entire network.

DIA2P

Analog to Dante

DIA2P-Specifications	
Maximum Level	16dBu
Dynamic Range	112dB
Total Harmonic Distortion (THD+N)	0.003%@1kHz, +4dBu
Input Crosstalk	-110dB@1kHz
Frequency Response	20Hz-20kHz(-/+0.2dB)
Connection Port	RJ45 & 2*XLR-F
Sampling Rate	48kHz
Bit Depth	24bit
Dante Device Latency	1ms、2ms、5ms
Power Supply	802.3af PoE

DIO2P

Dante to Analog

DIO2P-Specifications	
Maximum Output Level	16dBu
Dynamic Range	114dB
Total Harmonic Distortion (THD+N)	0.002% @1kHz, +4dBu
Output Crosstalk	-88dB@1kHz
Frequency Response	20Hz-20kHz (+0\-0.3)
Connection Port	RJ45 & 2*XLR-M
Sampling Rate	48kHz
Bit Depth	24bit
Dante Device Latency	1ms、2ms、5ms
Power Supply	802.3af PoE

DIC2

USB-C to Dante

DIC2 - Product Overview

The Dante I/O USB adapter allows you to connect any computer to a Dante audio network via a Type-C USB interface, enabling the use of any audio application for playback or recording. It supports simultaneous two-channel audio recording and playback on any PC system without requiring additional software.

DIC2-Specifications	
Dante Device Latency	1ms、2ms、5ms
Audio Channels	2-in 2-out
Connection Port	RJ45 & USB-C
Sampling Rate	448kHz (Max 96kHz)
Bit Depth	24bit
USB to Dante Power Supply	USB 5V
Operating Temperature	-15℃ to 40℃ (USB device side)