

# DynePro

Clearest streaming pro audio <a href="#">Dante</a>



The DynePro series is Danacoid's fully networked family of professional audio products, for auto showrooms, movie theaters, houses of worship, bars and restaurants, conferences and lecture halls. DynePro's exquisite engineering and simple design deliver audio of the highest quality at a consistently low cost. Dante technology makes sure your audience gets every word of the sermon, the movie, the conference, the lecture, the meeting. Its clarity and reliability create the perfect conditions for streaming inviting music in any commercial setting. Danacoid makes it easy to transmit and control audio safely, quietly, and conveniently through a single network cable for reliable performance and perfect integration.



# **Digital Signal Processor (Stand-Alone Version)**

DA-0404

DA-0808

DA-0812

DA-1208

DA-1212

DA-1616





# Introduction

- Using the ADISHARC platform, it provides a semi-open architecture ETHERNET;
- Open user interface for integrated management of multiple devices;
- Provides outstanding sound quality at 24bit/48kHz;
- Independent adaptive feedback suppression for each channel, automatic discovery of feedback points, and automatic suppression;
- Two adaptive echo cancellation (AEC), noise suppression (ANS);
- Gain Shared Automix (AMC), Gate Mixer;
- Automatic Gain (AGC);
- Dodge (Ducker);
- Noise gain compensator (ANC);
- Full-function matrix mixing (delay matrix), input mix level can be adjusted;
- 16 sets of presets, each working independently;
- The 8 GPIOs can be independently configured with inputs and outputs, and can be used as independent A D C when configuring inputs;
- Support channel copy, LINK and marshalling functions;
- Support RS 232 central control and UDP central control, UDP port can be set freely, control software can view the control code; Equipped with 2 types of wall panels that both can be software programmed;
- Built-in USB sound card, support recording and remote conference;
- · Support IOS, Windows system

Model	DA-0404	DA-0808	DA-0812
Power Supply	DC12V/PoE48V	AC110~240V,50Hz/60Hz	AC110~240V,50Hz/60Hz
Processor	ADI SHARC 21489	ADI SHARC 21489	ADI SHARC 21489
Sample Rate/Quantizations	48K/24bit	48K/24bit	48K/24bit
Number of Analog Input, Output Channels	4 x 4	8 x 8	8 x 12
Input Gain	0/6/12/18/24/30/36/42/48 dB	0/3/6/9/12/15/18/21/24/27/30	/33/36/39/42/45/48 dBu
Phantom Power	+48V/10mA max	+48V/10mA max	+48V/10mA max
Frequency response	20~20kHz(±0.3dB)	20~20kHz±0.3dB	20~20kHz±0.3dB
Maximum Level	+18dBu	+18dBu	+18dBu
THD+N	<-95dB@17dBu	<-95dB@17dBu	<-95dB@17dBu
Input Dynamic Range	110 dB	110 dB	110 dB
Output Dynamic Range	112 dB	112 dB	112 dB
Channel Isolation @ 1 kHz	108 dB	108 dB	108 dB
Input Impedance (balanced connection)	5.4ΚΩ	5.4ΚΩ	5.4ΚΩ
Output Impedance (balanced connection)	600 Ω	600 Ω	600 Ω
System Latency	<3ms	<3ms	<3ms
Dimensions (W x D x H)	215x162x44mm	482x260x45mm	482x260x45mm
Shipping Weight	2KG	4KG	4KG

Model	DA-1208	DA-1212	DA-1616			
Power Supply	AC110~240V,50Hz/60Hz	AC110~240V,50Hz/60Hz	AC110~240V,50Hz/60Hz			
Processor	ADI SHARC 21489	ADI SHARC 21489	ADI SHARC 21489			
Sample Rate/Quantizations	48K/24bit	48K/24bit	48K/24bit			
Number of Analog Input, Output Channels	12 x 8	12x12	16x16			
Input Gain	0/3/6/9/1	0/3/6/9/12/15/18/21/24/27/30/33/36/39/42/45/48 dBu				
Phantom Power	+48V/10mA max	+48V/10mA max	+48V/10mA max			
Frequency response	20~20kHz(±0.3dB)	20~20kHz±0.3dB	20~20kHz±0.3dB			
Maximum Level	+18dBu	+18dBu	+18dBu			
THD+N	<-95dB@17dBu	<-95dB@17dBu	<-95dB@17dBu			
Input Dynamic Range	110 dB	110 dB	110 dB			
Output Dynamic Range	112 dB	112 dB	112 dB			
Channel Isolation @ 1 kHz	108 dB	108 dB	108 dB			
Input Impedance (balanced connection)	5.4ΚΩ	5.4ΚΩ	5.4ΚΩ			
Output Impedance (balanced connection)	600 Ω	600 Ω	600 Ω			
System Latency	<3ms	<3ms	<3ms			
Dimensions (W x D x H)	482x260x45mm	482x260x45mm	482x260x45mm			
Shipping Weight	4KG	4KG	4KG			

# **Digital Signal Processor (Dante Version)**

DA-0404D

DA-0808D

DA-0812D

DA-1208D

DA-1212D

DA-1616D

DA-3232D

DA-6464D





# Introduction

- Using the ADISHARC platform, it provides a semi-open architecture ETHERNET;
- Open user interface for integrated management of multiple devices;
- Provides outstanding sound quality at 24bit/48kHz;
- Independent adaptive feedback suppression for each channel, automatic discovery of feedback points, and automatic suppression;
- Two adaptive echo cancellation (AEC), noise suppression (ANS);
- Gain Shared Automix (AMC), Gate Mixer;
- Automatic Gain (AGC);
- Dodge (Ducker);
- Noise gain compensator (ANC);
- Full-function matrix mixing (delay matrix), input mix level can be adjusted;
- 16 sets of presets, each working independently;
- The 8 GPIOs can be independently configured with inputs and outputs, and can be used as independent A D C when configuring inputs;
- Support channel copy, LINK and marshalling functions;
- Support RS 232 central control and UDP central control, UDP port can be set freely, control software can view the control code; Equipped with 2 types of wall panels that both can be software programmed;
- Built-in USB sound card, support recording and remote conference;
- · Support IOS, Windows system

Model	DA-0404D	DA-0808D	DA-0812D	DA-1208D
Power Supply	DC12V/PoE48V	AC110~240V,50Hz/60Hz	AC110~240V,50Hz/60Hz	AC110~240V,50Hz/60Hz
Sample Rate/Quantizations	48K/24bit	48K/24bit	48K/24bit	48K/24bit
Number of Analog Input, Output Channels	4 x 4	8 x 8	8 x 12	12 x 8
DANTE Input and Output Channels	4 x 4	8 x 8	8 x 12	8 x 8
Input Gain	0/6/12/18/24/30/36/ 42/48 dBU	0/3/6/9/12/15/18/21/24/27/30/33/36/39/42/45/48		dBu
Phantom Power	+48V/10mA max	+48V/10mA max	+48V/10mA max	+48V/10mA max
Frequency response	20~20kHz(±0.3dB)	20~20kHz±0.3dB	20~20kHz±0.3dB	20~20kHz±0.3dB
Maximum Level	+18dBu	+18dBu	+18dBu	+18dBu
THD+N	<-95dB@17dBu	<-95dB@17dBu	<-95dB@17dBu	<-95dB@17dBu
Input Dynamic Range	110 dB	110 dB	110 dB	110 dB
Output Dynamic Range	112 dB	112 dB	112 dB	112 dB
Channel Isolation @ 1 kHz	108 dB	108 dB	108 dB	108 dB
Input Impedance (balanced connection)	5.4ΚΩ	5.4ΚΩ	5.4ΚΩ	5.4ΚΩ
Output Impedance (balanced connection)	600 Ω	600 Ω	600 Ω	600 Ω
System Latency	<3ms	<3ms	<3ms	<3ms
Dimensions (WxDxH)	215x162x44mm	482x260x45mm	482x260x45mm	482x260x45mm
PITTICITISIONS (WXDXII)				
Shipping Weight	2KG	4KG	4KG	4KG
· , ,		4KG <b>DA-1616D</b>	4KG DA-3232D	4KG <b>DA-6464D</b>
Shipping Weight	2KG  DA-1212D			DA-6464D
Shipping Weight  Model	2KG  DA-1212D	DA-1616D	DA-3232D	DA-6464D
Shipping Weight  Model  Power Supply	2KG  DA-1212D  AC110~240V,50Hz/60Hz	<b>DA-1616D</b> z AC110~240V,50Hz/60Hz	<b>DA-3232D</b> AC110~240V,50Hz/60Hz	<b>DA-6464D</b> AC110~240V,50Hz/60Hz
Shipping Weight  Model Power Supply Sample Rate/Quantizations Number of Analog Input,	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit	<b>DA-1616D</b> z AC110~240V,50Hz/60Hz 48K/24bit	<b>DA-3232D</b> AC110~240V,50Hz/60Hz	DA-6464D AC110~240V,50Hz/60Hz 48K/24bit
Shipping Weight  Model  Power Supply  Sample Rate/Quantizations  Number of Analog Input, Output Channels  DANTE Input and Output	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels  DANTE Input and Output Channels	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain	2KG  DA-1212D  AC110~240V,50Hz/60Hz/60Hz/60Hz/24bit  12 x 12  8 x 8	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/34/45/48 (27/30/44/45/48 (27/30/44) (27/30/44/45/48 (27/30/44/45/48 (27/30/44) (27/30/44) (27/30/44/45/48 (27/30/44) (27/	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain Phantom Power	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain Phantom Power Frequency response	2KG  DA-1212D  AC110~240V,50Hz/60Hz/60Hz/60Hz/60Hz/60Hz/60Hz/60Hz/6	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max  20~20kHz±0.3dB	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain Phantom Power Frequency response Maximum Level	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max  20~20kHz(±0.3dB)  +18dBu	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB +18dBu	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max  20~20kHz±0.3dB	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Shipping Weight  Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels  DANTE Input and Output Channels  Input Gain Phantom Power Frequency response Maximum Level THD+N	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max  20~20kHz(±0.3dB)  +18dBu <-95dB@17dBu	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB +18dBu <-95dB@17dBu	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max  20~20kHz±0.3dB	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain Phantom Power Frequency response Maximum Level THD+N Input Dynamic Range	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max  20~20kHz(±0.3dB) +18dBu <-95dB@17dBu 110 dB	DA-1616D  z AC110~240V,50Hz/60Hz  48K/24bit  16 x 16  16 x 16  0/3/6/9/12/15/18/21/24/2  +48V/10mA max  20~20kHz±0.3dB  +18dBu  <-95dB@17dBu  110 dB	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max 20~20kHz±0.3dB +18dBu / /	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels  DANTE Input and Output Channels  Input Gain Phantom Power Frequency response Maximum Level THD+N Input Dynamic Range Output Dynamic Range	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max  20~20kHz(±0.3dB) +18dBu <-95dB@17dBu  110 dB  112 dB	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB +18dBu <-95dB@17dBu 110 dB 112 dB	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max 20~20kHz±0.3dB +18dBu / /	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain Phantom Power Frequency response Maximum Level THD+N Input Dynamic Range Output Dynamic Range Channel Isolation @ 1 kHz Input Impedance	2KG  DA-1212D  AC110~240V,50Hz/60Hz/60Hz/60Hz/60Hz/60Hz/60Hz/60Hz/6	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB +18dBu <-95dB@17dBu 110 dB 112 dB 108 dB	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max 20~20kHz±0.3dB +18dBu / /	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels  DANTE Input and Output Channels  Input Gain Phantom Power Frequency response Maximum Level THD+N Input Dynamic Range Output Dynamic Range Channel Isolation @ 1 kHz Input Impedance (balanced connection) Output Impedance	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max  20~20kHz(±0.3dB) +18dBu <-95dB@17dBu  110 dB  112 dB  108 dB  5.4KΩ	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB +18dBu <-95dB@17dBu 110 dB 112 dB 108 dB 5.4KΩ	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 ( +48V/10mA max 20~20kHz±0.3dB +18dBu / / / / / /	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB
Model Power Supply Sample Rate/Quantizations Number of Analog Input, Output Channels DANTE Input and Output Channels Input Gain Phantom Power Frequency response Maximum Level THD+N Input Dynamic Range Output Dynamic Range Channel Isolation @ 1 kHz Input Impedance (balanced connection) Output Impedance (balanced connection)	2KG  DA-1212D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 12  8 x 8  +48V/10mA max  20~20kHz(±0.3dB) +18dBu <-95dB@17dBu  110 dB  112 dB  108 dB  5.4KΩ  600 Ω	DA-1616D z AC110~240V,50Hz/60Hz 48K/24bit 16 x 16 16 x 16 0/3/6/9/12/15/18/21/24/2 +48V/10mA max 20~20kHz±0.3dB +18dBu <-95dB@17dBu 110 dB 112 dB 108 dB 5.4KΩ 600 Ω	DA-3232D  AC110~240V,50Hz/60Hz  48K/24bit  /  32 x 32  27/30/33/36/39/42/45/48 0  +48V/10mA max  20~20kHz±0.3dB  +18dBu  /  /  /  /  /  /  /	DA-6464D  AC110~240V,50Hz/60Hz  48K/24bit  12 x 8  8 x 8  dBu  +48V/10mA max  20~20kHz±0.3dB  +18dBu  / / / /

# **DA-8000 II**

Digital Audio Information Processor

### **Features**

- · Self developped
- Network channel: 64x64,mega network transmission, network transmission backup;
- AEC: support custom addition of independent AEC modules;
- · Active/Standby mode;
- Player: multi-channel audio player, 64G memory, playback format WAV, MP3, support timed playback;
- Graphical user interface can be edited according to needs, supporting software, web, and mobile control;
- Built-in Lua script, providing flexible expansion and customization functions;
- Dual power supply redundancy (AC/DC).



# Introduction

DA- 8000II next-generation intelligent digital audio processing server uses two processing chips with a main frequency of 1GHz, which is the core device of the thermal computing power system platform. The thermal computing system platform is based on the real-time Linux operating system, through independent research and development to achieve better localization functions, drag-and-drop module with a full-English operation interface, with diversified data processing capabilities, relying on the digital network environment to build for a variety of large-scale network audio application scenarios.

The server has network backup and dual-host backup functions, the backup mechanism is set by intelligent algorithms, to realize automatic backup, the main and subordinate server only need to ensure the exact same configuration, it can achieve mirror backup through the system mechanism, based on the heartbeat signal and "static" and "moving", which is the perfect combination of physical backup and logical backup, to achieve node without vulnerabilities, uninterrupted system operation, and thus to ensure the security of the system.

The server contains 8 channels of 300ms AEC input channels, and also has 8 card slots that can be equipped with different types of audio cards, 4-channel analog input cards, 4-channel analog input cards, 4-channel AEC cards,\*2-channel/4-channel USB sound cards, etc., to achieve full signal compatibility. A maximum of 32 analog channels are supported locally. Both integrated and independent channels offer extremely high hardware quality, including frequency response, dynamic range and total harmonic distortion. The server supports 64x64 network transmission, the host supports custom board configuration, and can be arbitrarily equipped with input, output card and AEC card, and the openness of the system and server is diversified to complete the use scenarios that meet user needs.

The system has a full-English operation interface, the control operation interface is simple and intuitive; in the control software, through simple mouse operation, you can complete the entire audio system parameters, plan setting and call. The graphical control interface is one of the core of this system, and the signal is on spot and can be achieved by installing software on the computer.

### **Channel Capacity**

Network channel capability 64×64

Audio I/O capability 8 audio I/O card slots

Multi-track player capability 16track
Media storage capacity 64G

Configure the audio I/O card DA-Al4: 4-channel microphone/line input card

DA-AO4: 4-channel line output card

DA-EI4: 4-channel AEC (Echo Cancellation Cartridge/Line Input Card

DA-USB2: 2x2USB sound card DA-VolP4: 4-channel IP voice card

 $\begin{array}{lll} \mbox{Dynamic range} & >118dB \\ \mbox{Frequency Response} (\pm 0.2dB) & 20Hz \sim 20kHz \\ \mbox{Input impedance} & 5.5kQ \\ \mbox{Channel crosstalk} & <-112dB \\ \mbox{Total Harmonic Distortion (THD+N)} & <0.002\% \\ \mbox{Common-mode rejection ratio (@0dBu)} & >91dBu \\ \mbox{Maximum input level (@1 \% distortion)} & +22dBu \\ \end{array}$ 

### **Control and indicator lights**

Front panel control Touch-based information control buttons

Front panel LEDs Power Indicator

Status Indicator

Information screen 3.12 inch flip display

### **Control and indicator lights**

RS232/485 6Pin 3.81 mm Phoenix GPIO 16Pin 3.81 mm Phoenix

Dante Primary RJ45 1000Mbps
Dante Secondary RJ45 1000Mbps

Network control port PC software connects devices or controls communication

AC mains power IEC connector

DC backup power supply 24VDC 2A 2pin 5.81 mm Phoenix Voltage 110VAC - 240VAC ,50~60 Hz

Electricity 4A maximum @100VAC (actual current depends on configuration

conditions such as I/O slot connection, media memory configuration,

DSP configuration, and network configuration)

Working temperature range 0~45°C

BTU/h 600 (Estimated value under load) Humidity 85% relative maximum humidity

 $\begin{array}{lll} \text{Safety Certificate} & \text{CCC CE RoHS FCC} \\ \text{Product Size}(\text{W}\times\text{H}\times\text{D}) & 483\times88\times364\text{mm} \\ \text{Packaging Size} & 618\times153\times473\text{mm} \end{array}$ 

Weight 10KG

# **DA-8000 III**

Digital Audio Information Processor

### **Features**

- Self developped;
- Network channel: 32x32,mega network transmission, network transmission backup;
- AEC: support custom addition of independent AEC modules, up to 64AEC processing; free of DSP material pressure;
- · Active/Standby mode;
- Player: multi-channel audio player, 64G memory, playback format WAV, MP3, support timed playback;
- Graphical user interface can be edited according to needs, supporting software, web, and mobile control;
- Built-in Lua script, providing flexible expansion and customization functions;
- Dual power supply redundancy (AC/DC)



# Introduction

DA- 8000III next-generation intelligent digital audio processing server uses two processing chips with a main frequency of 1GHz, which is the core device of the thermal computing power system platform. The thermal computing system platform is based on the real-time Linux operating system, through independent research and development to achieve better localization functions, drag-and-drop module with a full-English operation interface, with diversified data processing capabilities, relying on the digital network environment to build for a variety of large-scale network audio application scenarios.

The server has network backup and dual-host backup functions, the backup mechanism is set by intelligent algorithms, to realize automatic backup, the main and subordinate server only need to ensure the exact same configuration, it can achieve mirror backup through the system mechanism, based on the heartbeat signal and "static" and "moving", which is the perfect combination of physical backup and logical backup, to achieve node without vulnerabilities, uninterrupted system operation, and thus to ensure the security of the system.

The server has 8 card slots and can be equipped with different types of audio cards - 4-channel analog input card, 4-channel analog input card, 4-channel AEC card, \*2-channel/4-channel USB sound card, so that the signal is fully compatible. A maximum of 32 analog channels are supported locally. Both integrated and independent channels offer extremely high hardware quality, including frequency response, dynamic range, and total harmonic distortion. The server supports 32\*32 network transmission, the host supports custom board load loading, and can be arbitrarily equipped with input, output card and AEC card, and uses the openness and diversification of the system and server to complete the use scenarios that meet user needs.

The system has a full-English operation interface, the control operation interface is simple and intuitive; in the control software, through simple mouse operation, you can complete the entire audio system parameters, plan setting and call. The graphical control interface is one of the core of this system, and the signal is on spot and can be achieved by installing software on the computer.

### **Channel Capacity**

Network channel capability  $32 \times 32$ 

Audio I/O capability 8 audio I/O card slots

Multi-track player capability 16track Media storage capacity 64G

Configure the audio I/O card DA-AI4 : 4-channel microphone/line input card

DA-AO4: 4-channel line output card

DA-EI4: 4-channel AEC (Echo Cancellation Cartridge/Line Input Card

DA-USB2: 2x2USB sound card DA-VolP4: 4-channel IP voice card

**Control and indicator lights** 

Front panel control Touch-based information control buttons

Front panel LEDs Power Indicator
Status Indicator

Information screen 3.12 inch flip display

**Control and indicator lights** 

RS232/485 6Pin 3.81 mm Phoenix
GPIO 16Pin 3.81 mm Phoenix

Dante Primary RJ45 1000Mbps
Dante Secondary RJ45 1000Mbps

Network control port PC software connects devices or controls communication

AC mains power IEC connector

DC backup power supply 24VDC 2A 2pin 5.81 mm Phoenix

Voltage 110VAC - 240VAC ,50~60 Hz

Electricity 4A maximum @100VAC (actual current depends on configuration

conditions such as I/O slot connection, media memory configuration,

DSP configuration, and network configuration)

Working temperature range 0~45°C

BTU/h 600 (Estimated value under load)
Humidity 85% relative maximum humidity

Safety Certificate CCC CE RoHS FCC Product Size(W $\times$ H $\times$ D) 483 $\times$ 88 $\times$ 364mm Packaging Size(W $\times$ H $\times$ D) 618 $\times$ 153 $\times$ 473mm

Weight 10KG

# DA-8000 I/O

Audio Information Interface

### **Features**

- High quality 24bit A/D and D/A converters;
- Rich and flexible optional channel configuration;
- Dual network backup;
- Dry mega network hardware and protocol transmission;
- GPIO control capabilities;
- Dual power supply redundancy (AC/DC).



# Introduction

The DA-8000 I/O interface is a supporting interface product of the super computing power system platform, which is used with the server to provide an expansion interface for the server host, that it greatly improves the expansion capability of the system. It can be used in a variety of forms to connect other audio systems or signals, such as mixers and power amplifiers, and it can be installed very close to the source and audio output.

The interface has 8 card slots, and can be optionally equipped with 4-channel mic/line input card, 4-channel line output card, 4-channel AEC (echo cancellation) microphone/line input card. The optional interface card is flexible and convenient, which effectively solves the user's needs for the number of input/output channels and avoids the defect of channel fixing of the T\$ interface machine.

Multiple accumulations can meet the requirements of multi-channel input and output of large-scale systems. The interface combined with the server host fully demonstrates the scalability of the super computing power system platform, and with the powerful processing power of the host and sufficient audio processing resources, it builds ultra-large-scale conference applications through supporting design software.

The interface reports the status in real time through the super computing power system platform, and the status of the host and the interface can be easily viewed by using the intuitive design software, making the system construction and maintenance simple and convenient.

The centralized management of the super computing power system platform supporting design software is particularly important, all system design, construction and management, can be completed through the supporting design software unified, intuitive interface, with this software can carry out graphical initial design, for the end user to create a graphical interface, after all the completion of the system control, and at any time to change and add equipment is also very convenient.

Weight

Туре	Network interface, digital-to-analog/analog-to-digital conversion
Network channel capability	32×32
Audio I/O capability	8 audio I/O card slots
Configure the audio I/O card	DA-Al4: 4-channel microphone/line input card
	DA-AO4 : 4-channel line output card DA-EI4: 4-channel AEC (Echo Cancellation Cartridge/Line Input Card
	DA-USB2: 2x2USB sound card
Control and indicator lights	
Front panel control	Touch-based information control buttons
Front panel LEDs	Power Indicator
	Status Indicator
Control and indicator lights	
RS232/485	6Pin 3.81 mm Phoenix
GPIO	16Pin 3.81 mm Phoenix
Dante Primary	RJ45 1000Mbps
Dante Secondary	RJ45 1000Mbps
Network control port	PC software connects devices or controls communication
AC mains power	IEC connector
DC backup power supply	24VDC 2A 2pin 5.81 mm Phoenix
Voltage	110VAC - 240VAC ,50~60 Hz
Electricity	4A maximum @100VAC (actual current depends on configuration conditions such as I/O slot connection, media memory configuration, DSP configuration, and network configuration)
Working temperature range	0~45°C
BTU/h	600 (Estimated value under load)
Humidity	85% relative maximum humidity
Safety Certificate	CCC CE RoHS FCC
Product Size( $W \times H \times D$ )	483×88×364mm
Packaging Size( $W \times H \times D$ )	618×153×473mm

10KG

# DA-AO4

### 4-Channel Line Output Card

Analog output card provides 4-channel line output. It uses plug-in connector and electron balance output. Control functions for each output include gain level and mute control.



### **Technical Specifications**

Dynamic range	>118DB
Frequency response (+/-0 2dB)	20HZ-20KHZ
Output impedance	102 ohms
Channel crosstalk	-112dB
Total harmonic distortion (THD+N)	< 0.002%
Maximum input level (@1% distortion)	+22dBu
Interface	Four 3-pin European split terminals

### **Characteristics**

- 4 balanced line outputs
- Dynamic range 118dB
- Provides quick installation ports
- Control and configuration completed via using software

# DA-AI4

### 4-Channel Microphone/Line Input Card

The analog input card provides 4-channel microphone/line trunking, +48 V phantom power, 24dB gain level control, and sensitivity adjustable 0/6/12/18/24/30/36/42/48/54dB total 10 levels. It uses plugin balanced input, and each input control includes gain level control, voice play, mute and signal inversion.



### **Technical Specifications**

Dynamic range	>118dB
Frequency response (+/-0 2dB)	20HZ-20KHZ
Input impedance	5.5k ohms
Channel crosstalk	<-112dB
Total harmonic distortion (THD+N)	<0.002%
CMRR (Common mode rection ratio) (@0dBBU)	>91dBu
Maximum input level (@1% distortion)	+22dBu
Interface	Four 3-pin European split terminals

### **Characteristics**

- 4-channel microphone/line input
- +48V phantom power supply
- Dynamic range 118dB
- Provides quick installation ports
- Control and configuration completed via using software

# DA-EI4

4-Channel AEC (Acoustic Echo Cancellation) Microphone/Line Input Card

The AEC input card offers 4-channel AEC functionality. Phantom power 24dB gain level control and with 0/6/12/18/24/30/36/42/48/54dB total 10-level sensitivity adjustable functions. Provides AEC wideband processing with ending time up to 300ms. Each channel of the AEC input card has independent input and direct output for local amplification.

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### **Technical Specifications**

Dynamic range	>118Db
Frequency response (+/-0 2dB)	20HZ-20khz
Input impedance	5.5k ohms
Channel crosstalk	-112 dB
Total harmonic distortion (THD+N)	<0.002%
Common mode rejection ratio (@0dBBU)	>91dBu
Maximum input level (@1% distortion)	+22dBu
Interface	Four 3-pin European split terminals

### **Characteristics**

- 4-channel AEC input card with DSP processing capability
- Does not consume resources of the DSP host
- Extra DSP processing capability to serve the system
- Dynamic range of 118dB
- Fast installation interface
- Completes control and configuration over software.

# **DA-VoIP4**

### 4-Channel IP Voice Card

A modular Voice over Internet Protocol (VoIP) card allows audio signal transported over the internet without necessity of placing phone line. It can be combination with a third-party system platform to provide flexibility, efficiency and high-quality users' experience, such as freedom of phoning, simple management and easy maintenance.

- Control over the third-party system platform
- SIP V2 (RFC 3261 and matching RFC)

- SIP Certification
- Multiple codec support



# DA-USB2

### 2-Channel USB Sound Card

The USB sound card is used for the system to access USB signals, recording audio, video conferencing, and testing signal access. -60~0dB level fader range, support connection status display. Type 2 USB interface is convenient to connect to PC and other USB-type devices.

### **Technical Specifications**

Sampling rate	48 KHZ
Digitalizing bit	24Blt
USB status link	Streaming

### **Characteristics**

- Sampling rate: 48KHz Digitalizing bit: 24bit
- The 2x2 line I/O mode uses Type 2 USB
- Support for hot swap
- With quick installation interface
- Control and configuration through software



# DA-16 I/O

Audio processing interface

### **Features**

- Can be used as a processor, the same platform as the audio information processing server;
- High quality 24bit A/D and D/A converters;
- · Highly integrated design;
- Dual network backup;
- Transmission in dry mega network hardware and protocols;
- GPIO control capability.



# Introduction

DA-16 I/O is a supporting interface product of the thermal computing power system platform, which is used with the server to provide an expansion interface for the server host, that it greatly improves the expansion capacity of the system. It can also be used as an audio processor independently, with the same processing function, fully demonstrating the diversity of the thermal computing power system platform, the multi-interface unified scheduling and management function. It can be used in a variety of ways to connect other audio systems or signals, such as mixers and power amplifiers, and it can be installed very close to the audio source and audio output. Each interface device has 16 interfaces, namely: 8 microphone/line level analog audio inputs, with 48V phantom power; 8 line level analog output. Up to 8 input and 8 output channels can be provided for processor hosts and other audio devices.

The DA-16 I/O takes the channel expansion capabilities of the thermal computing system platform to the extreme, and it is a compact, dual-supply network-integrated device that can be installed wherever channel expansion is required. For unpredictable system changes, there is often a need to increase audio input and output, and the DA-161/0 is the best choice. It can be configured arbitrarily according to the system requirements and installed where the network cable can reach, which significantly reduces the wiring requirements and reduces the cost, thanks to the 1U fuselage design and dry mega network transmission mode.

In addition, the DA-16 I/O has GPI. Channel, this function is mostly accompanied by the application of audio channel logic functions, and can also be extended through the GPIO port control functions, such as fire alarm, dry contact I. The control signal interface and the fire alarm broadcast system are docked, and the emergency broadcasting function is expanded without increasing the cost of the system.

Туре	Network DSP interface, Digital-to-analog/Analog-to-digital Conversion
Network Channel Capability	8×8
Channels	8-way microphone (with phantom power) / line input(4 channels with AEC function), 8-wayoutput
Dynamic Range	>118dB
Frequency Response ( $\pm 0.2$ dB)	20Hz~20kHz
Channel Crosstalk	<-112dB
Common-Mode Rejection Ratio (@OdBu)	50.002%
Common-Mode Rejection Ratio (@OdBu)	>91dBu
Touch-based information control buttons	+22dBu

### **Controls and ndicators**

Front Panel Controls Touch-based Information Control Buttons

Front panel LEDs Power Indicator Status Indicator

Information Screen 2.08 inch flip display

### The Rear Panel Connects the Ports

RS232/485 6Pin 3.81 mm Phoenix GPIO 16Pin3.81mm Phoenix

Dante Primary RJ45 1000Mbps
Dante Secondary RJ45 1000Mbps

Network Control Port PC software connects devices or controls communication

AC mains power IEC Connector

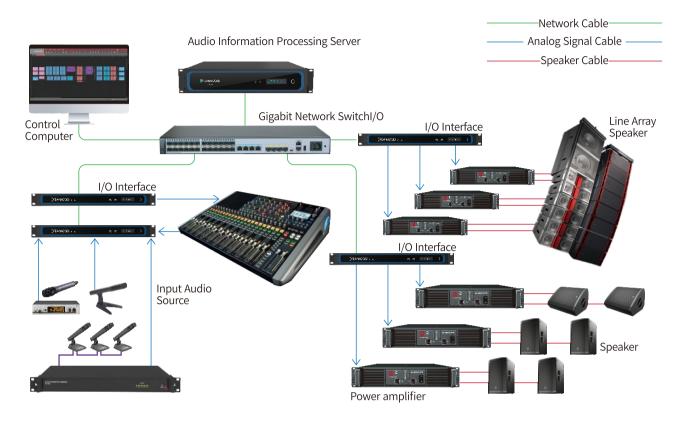
Voltage 110 VAC - 240 VAC , 50 ~ 60 Hz Current 4 A maximum @ 100 VAC

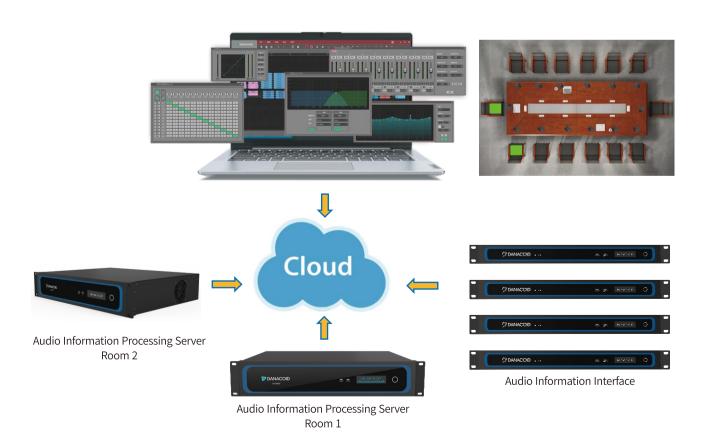
Operating Temperature Range 0~45°C

BTU/h 450 (Estimated value under load)
HUmidity 85% Relative Maximum Humidity

Safety Certificate CCC CE RoHS FCC
Product Size 491x44x291mm

# **System Diagram**





Technical	Audio Information Processor		Processor Interface	Interface
Parameter	DA-8000 II	DA-8000 III	DA-16 I/O	DA-8000 I/O
DSP Type	Drag-and-drop DSP at the frame	Drag the DSP structure	Drag the DSP at the frame	_
Local Input Channel	_	_	8 (4 way AEC)	_
Local Output Channel	_	_	8	_
Card Slot Number	8	8	_	8
Maximum AEC Processing Capacity	96	64	4	_
Network audio channel	64×64	32×32	8×8	32×32
GPIO	8×8	8×8	8×8	8×8
*RTA Real-time Analyzer	V	$\sqrt{}$	\	\
*Multi-track Audio Player	V	$\checkmark$	\	\
Dante I/O Channel	$\checkmark$	$\sqrt{}$	J	$\checkmark$
Expandable I/O Enclosure	V	$\checkmark$	V	\
PC Control	V	$\checkmark$	V	\
*Logic Control	V	$\checkmark$	\	\
*Programmable Scripting Language	V	V	\	\

Technical	Input Interface Card	Output Interface Card	AEC Input Interface Card	USB Sound Card	IP Voice Card
Parameter	DA-AI4	DA-AO4	DA-EI4	*DA-USB2	*DA-VOIP4
Channels	4 way/card	4 way/card	4 way/card	2×2 way/card	4 circuits/card
Frequence Response(±2dB)	20Hz~20kHz	20Hz~20kHz	20Hz~20kHz	20Hz~20kHz	_
Phantom Power	48VDC	_	48VDC	<del>-</del>	<u> </u>
Dynamic Range	>118dB	>118dB	>118dB	>118dB	>118dB
Channel Crosstalk	<-112dB	<-112dB	<-112dB	_	_
Total Harmonic Distortion(THD+N)	<0.002%	<0.002%	<0.002%	<del>_</del>	<del>_</del>
Interface	4×3-pin EU separation terminals	4×3-pin EU separation terminals	4×3-pin EU separation terminals	USB typeB	Rj45



## Danacoid Inc.

- **4**08-317-8403
- ☑ Info@danacoid.com
- **②** 85 Saratoga Ave.Suote 139BS,Santa Clara,CA,95051,USA.

### **Danacoid International Pte Ltd**

- +65-91082962
- Peter@danacoid.com
- **⊙** 62 Ubi Rd1,#08-03 Oxley Bizhub 2 (408734)

### **Danacoid China**

- **4**00-968-9399
- admin@danacoid.com
- ◆ Building B, Room 805, Gudai Road 2988, Minhang District, Shanghai, China Yandu Road 1188, Yandu District, Yancheng, Jiangsu Province, China

For more information, please visit our website at www.danacoid.com