

Symmetrix AI16 DAN16

Dante Audio DSP



DESCRIPTION

The Aniston Symmetrix AI16 DAN16 is a flagship-level AI-enhanced digital signal processor (DSP) engineered for modern conferencing, broadcasting, and professional audio environments. It merges 16x16 analog audio I/O with a robust 16x16 Dante network interface, underpinned by a cutting-edge AI-powered signal processing engine based on ADI SHARC and ARM quad-core architecture.

Designed to deliver intelligent audio performance, the Symmetrix DAP1616AI DAN16 integrates acoustic echo cancellation, active noise control, gain management, feedback suppression, and advanced equalization in one compact 1U chassis. Ideal for scalable and demanding applications, it supports real-time voice clarity, networked audio distribution, and multi-protocol camera tracking.

This solution ensures complete control flexibility through USB, TCP/IP, RS232, RS485, and GPIO interfaces, while its intuitive GUI software and Android control app streamline system configuration and management.

FEATURES

- **Hybrid Analog + Dante 16x16 I/O Architecture**

16 analog balanced mic/line inputs with switchable +48V phantom power (6.5mA/channel)

16 balanced line-level outputs with ultra-low noise and high headroom

Integrated 16x16 Dante audio interface, supporting real-time digital audio routing over Ethernet with primary/secondary redundancy

- **Advanced AI-Based Signal Processing**

Real-time processing via ADI SHARC DSP + ARM Cortex quad-core CPU

Intelligent speech enhancement with adaptive voice isolation

- **Professional-Grade Audio Performance**

Latency <1.2ms (Analog In to Analog Out)

Frequency response: 20 Hz – 20 kHz ± 0.5 dB

THD+N: <0.001%

Dynamic range: >115 dB (A-weighted)

Crosstalk isolation: <-105 dB

- **Flexible Mixing & Equalization**

Fully configurable matrix mixing and auto-mixing

15/8-band input EQ and 10/8-band output EQ

HPF/LPF filters with selectable Butterworth, Bessel, and Linkwitz-Riley characteristics

- **Extensive Control & Connectivity**

USB (driver-free), RS232, RS485, TCP/IP (RJ45), GPIO

Optional RS485-based touchscreen control support

Front panel OLED status display and LED indicators

- **Camera Tracking Integration**

Native compatibility with industry-standard PTZ camera control protocols

Enables seamless audio-to-camera linkage for AV automation

- **Software Platform Support**

Graphical User Interface for Windows 7/8/10/11

Android control application for tablet/mobile deployment

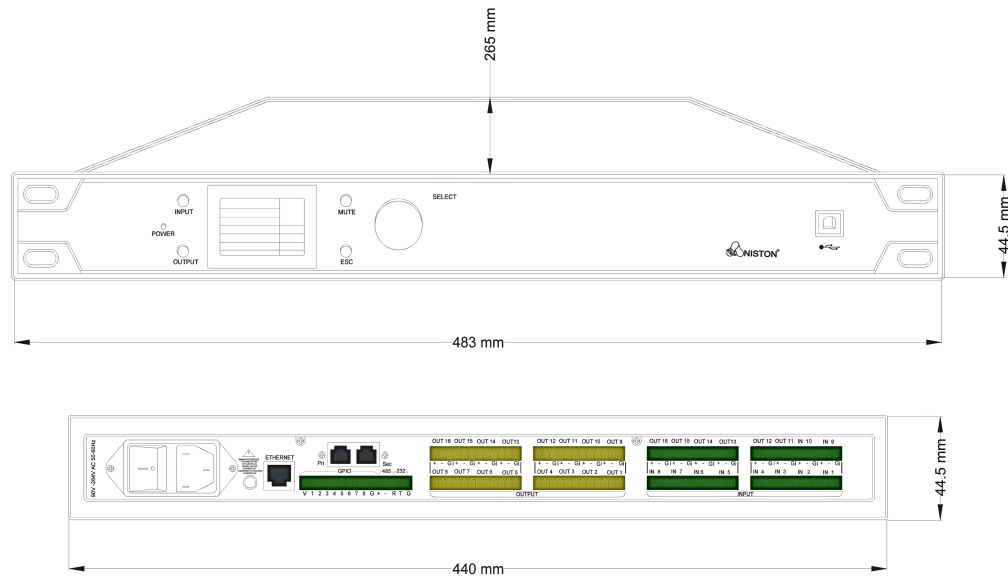
Firmware upgradable over LAN



TECHNICAL SPECIFICATIONS

Model	Aniston Symmetrix AI16 DAN16
Form Factor	1U 19-inch Rackmount
Analog Input Channels	16 Balanced Mic/Line Inputs
Analog Output Channels	16 Balanced Line Outputs
Dante Digital Audio Channels	16×16 (Primary & Secondary Port Redundancy)
Dynamic Range	>115 dB A-weighted
USB Audio Interface	2×2 USB Type A-B (Driver-Free)
AI Processing Engine	ADI SHARC 21489 + ARM Quad-Core CPU
AEC (Acoustic Echo Cancellation)	Yes – AI-Enhanced
ANC (Active Noise Control)	Yes – Real-Time Ambient Noise Suppression
AGC (Automatic Gain Control)	Yes – Adaptive Input Gain Balancing
AFC (Automatic Feedback Control)	Yes – Dual-Level Feedback Elimination
Input Equalization	12 kΩ
Output Equalization	10 or 8 Bands EQ per Channe
Filter Types Supported	HPF/LPF: Butterworth, Bessel, Linkwitz-Riley
Matrix Mixing	Yes – Fully Configurable
Auto Mixing	Yes – Intelligent Priority and Gain Management
Phantom Power	+48V DC, 6.5mA per Mic Input
Frequency Response	20 Hz – 20 kHz (±0.5 dB)
Dynamic Range	>115 dB A-weighted
THD+N	<0.001% @ +4 dBu
Output Impedance	200 Ω
Audio Latency	<1.2 ms (Analog In to Analog Out)
Sampling Rate	Yes – Compatible with Most Camera Control Protocols
Camera Tracking	483mm × 265mm × 44.5mm
Control Interfaces	USB, RS232, RS485, TCP/IP, GPIO
Network Interface	Ethernet RJ45, 1 Gbps
Power Supply	85 – 264 VAC, 50/60 Hz
Weight	3.8 kg
Software Support	Dedicated Software, Android App
Power Consumption	35W Typical, 60W Max
Dimensions (W x D x H)	483 mm × 265 mm × 44.5 mm
Firmware Upgrade	Supported Over Network
Certification & Safety	CE, RoHS (if applicable) – [You can add this if certified]

PRODUCT DIMENSION



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