



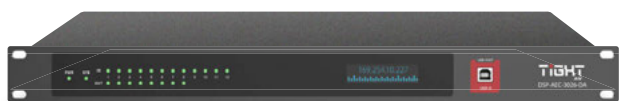
# DSP-AEC-3026-DA

## AUDIO DSP WITH AEC, 12-IN/8-OUT ANALOG, 16-IN/16-OUT DANTE AND 2x2 USB

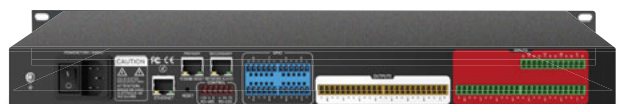
Elevate your audio installations with the DSP-AEC-3026-DA, a sophisticated audio signal processor that seamlessly integrates analog, USB, and Dante interfaces to deliver professional-grade performance. Designed for versatility and ease of use, this unit is configured through an intuitive Windows application featuring a customizable graphical user interface (GUI), allowing users to tailor layouts, themes, and access levels with admin and user account support.

At its core, the DSP-AEC-3026-DA boasts robust processing power, encompassing equalization, dynamics, mixing, matrix routing, and advanced acoustic echo cancellation (AEC) to ensure crystal-clear communication in demanding environments. Its analog inputs accommodate both microphone and line-level sources, with individually selectable phantom power for precise signal handling. Paired with fully processed 16x16 Dante inputs and outputs, it provides a modern, scalable solution ideal for conference rooms, broadcasting studios, live events, and more.

Enhancing connectivity, the 2x2 USB interface functions as a dedicated sound card for effortless computer audio integration — perfect for streaming playback and recording in virtual meetings or collaborative setups. For mission-critical reliability, redundancy mode safeguards operations, while an open API enables seamless external control via Ethernet (TCP/UDP) or RS-232/485 protocols. Whether you're optimizing sound for hybrid work environments or complex AV systems, the DSP-AEC-3026-DA combines cutting-edge features with user-centric design to redefine audio processing efficiency.



DSP-AEC-3026-DA (FRONT)



DSP-AEC-3026-DA (BACK)

## KEY FEATURES

- **12x8 Analog inputs and Outputs:** Flexible support for microphone and line-level signals with per-channel phantom power.
- **16x16 Dante Inputs and Outputs:** With full processing for networked audio distribution.
- **2x2 USB Channels:** With full processing for seamless computer audio playback and recording.
- **Powerful DSP Processing:** Includes matrix routing, mixing, equalization, and dynamics for comprehensive control.
- **Acoustic Echo Cancellation (AEC):** Advanced algorithms to eliminate echoes in real-time communications.
- **Ducker and AFS (Adaptive Feedback Suppression).**
- **Camera Tracking Feature.**
- **Easy-to-Use GUI:** Configurable processing modules layout with light or dark theme options.
- **16 user configurable presets for easy recall**
- **Device Snapshot Export and Mass Import:** Streamline setup and deployment across multiple units.
- **Admin and User Account Support:** Secure access controls for collaborative environments.
- **Redundancy Mode:** Ensures uninterrupted performance in critical applications.
- **Open API:** For external control via Ethernet (TCP/UDP) or RS-232/485.



## TiGHT POLICY

**Faulty product - minimal down time.**

Up until six months after purchase, TiGHT AV will replace your product in advance of return of faulty product.

**Your investment - built to last.**

All TiGHT AV products come with a five year limited warranty.



# SPECIFICATIONS

## DSP PROCESSOR

Type:	ADI SHARC 21489
DSP Handling Capacity :	400 MIPS, 1,6 GFLOPS

## INPUT

Inputs:	(12) Analog Mic/line Audio
Input Connector:	(3) 12-pin Green Terminal Blocks
Phantom Power:	48V (Max 10mA), selectable per input

## OUTPUT

Outputs:	(8) Analog Line Audio
Output Connector:	(2) 12-pin Yellow Terminal Blocks

## INTERFACE

Ethernet:	(1) LAN, 10/100 Base-T Ethernet (2) LAN 10/100/1000 Base-T Ethernet
Ethernet Connector:	(3) RJ45
USB:	(1) USB 2.0, Type B
Serial:	(1) RS-232, (1) RS-485
Serial Connector:	(1) 6-pin Brown Terminal Blocks
GPIO:	(8) GPIO
GPIO Connector:	(2) 12-pin Blue Terminal Blocks

## AUDIO PERFORMANCE

Input Gain:	0 ~ 60dB in 3dB steps
Frequency Response:	±0.3dB (20Hz to 20KHz)
Maximum Level:	+18dBu
EIN:	<-125dB, 20Hz to 20kHz, A-Weighted
THD + Noise:	0.003% @ 4dBu
Input Dynamic Range:	110dB
Output Dynamic Range:	112dB
Background Noise:	-95dB, A-weighted
Common Mode Rejection Ratio @60Hz:	60dB
Channel Isolation @1KHz	108 dB
Input Impedance (Balanced):	5.4kΩ

## AUDIO PERFORMANCE

Output Impedance (Balanced):	600Ω
System Latency:	<5ms
Sample Rate:	48 kHz
Bit Depth:	24 Bit

## DANTE

Sample Rate:	44.1kHz, 48 kHz, 88.2 kHz and 96 kHz
Encoding Bit Depth:	16, 24 and 32 Bit PCM
Dante Device Latency:	1, 2, 3, 4, 5 or 10 ms
Network Transport:	Dante Audio over IP RTP

## NETWORK

Control Ethernet Port:	10/100 Base-T, auto-negotiation
Primary Dante Port:	10/100/1000 Base-T, auto-negotiation
Secondary Dante Port:	10/100/1000 Base-T, auto-negotiation

## GENERAL

Power requirements:	AC 110~240V, 50Hz~60Hz
Maximum Power Consumption:	<40W
Rack Space:	19" Rack (1HE)
Dimensions (W x D x H):	482 mm x 264 mm x 44 mm
Unit Weight:	2.2 kg
Shipping Weight:	3.2 kg
Operating Temperature:	0 ~ +40°C
Relative Humidity:	10% - 90%

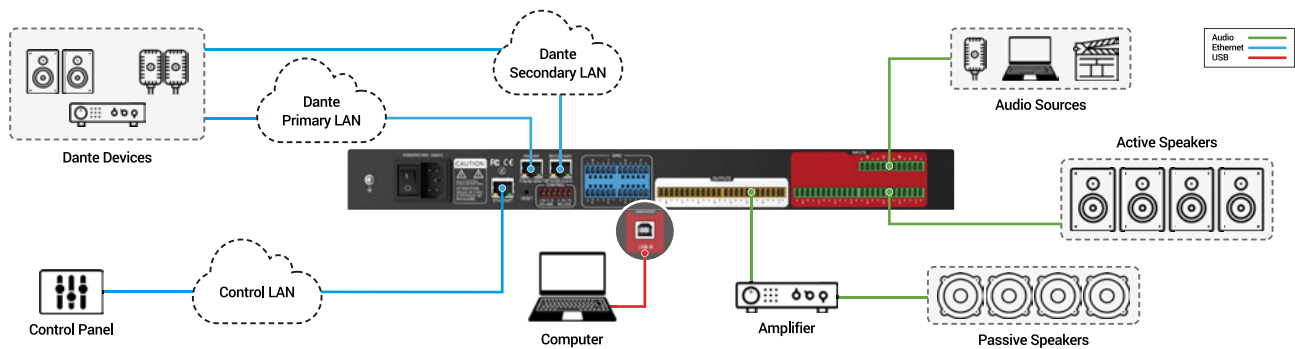
## COMPLIANCE

Compliance:	FCC, CE
Environmental Compliance:	RoHS, REACH, WEEE

## PACKAGE LIST

- 1x DSP-AEC-3026-DA
- 7x 12-pin and 1x 6-pin Terminal Block connectors
- 1x 1.5m USB 2.0 cable (Type A to Type B)
- 1x AC power cable
- 1x Screwdriver
- 4x Rubber Feet

# SYSTEM DESIGN EXAMPLE



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