

16×16 Digital DSP Audio Matrix

TRI-ACV-DSP16D-1033

Large venues | Live events & performing arts | Auditorium | planetarium | Network Operation Centers

Features :

- Supports 36x33 matrix mixing functionality.
- Up to 16x16 Dante network audio supported.
- Provides 16 channels of uncompressed, low-latency digital audio for Dante conference controller, expansion controller, amplifiers, and POE speakers.
- USB interface for seamless handling of PC audio sources and video conference communication.
- Expandable USB interface: Not only supports device upgrade functionality but also enables USB recording and broadcasting, as well as 1x1 USB soundcard functionality.
- Compatibility: Supports multi-platform management, including Windows, iOS, and Android systems.

Functions :

- Inputs: 16 balanced microphone/line inputs, 1 auxiliary input for USB, and 16 optional digital inputs via Dante.
- Outputs: 16 balanced outputs, 1 auxiliary output for USB or recording players, and 16 optional digital outputs via Dante.
- 16x16 Dante audio network module (optional), supports Dante Domain Manager and AES67
- A/D and D/A conversion: 120dB dynamic range, supports up to 48kHz sample rate.
- Processor: High-speed DSP processing chip, ADI 450MHz.
- Input source selection: Switch between balanced microphones or line inputs using Phoenix connectors.
- Floating-point DSP functionality: 64-bit floating-point DSP engine supports multi-channel synchronous audio processing without degradation of audio quality. Its ultra-low and constant latency ensures audio-video synchronization, regardless of the number of channels or processes.
- Each input channel integrates preamp, signal generator, expander, de-esser, compressor, 12-band parametric equalizer, automatic gain control, AM automatic mixing, AFC adaptive feedback cancellation, ANC noise suppression, AEC echo cancellation, and audio matrix functions.



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Technical specifications

Parameter	Value
Analog Channels	16 Input Analog Channels +16 Output Analog Channels
DSP Processing	ADI 450MHz DSP
Core Algorithms	Automatic Mixing, Feedback Suppression, Echo Cancellation, Noise Cancellation
GPIO Interface	8 (shared between input and output)
RS232 Interface	1
RS485 Interface	1
RJ45 Control Interface	1
USB Interface	1
DANTE	2
Maximum Input Gain	48dBu
Quantization Bit Depth	24-bit
Sample Rate	48kHz
Frequency Response (20~20kHz)	±0.3dB
ADC Dynamic Range (A-weighted)	113dB
DAC Dynamic Range (A-weighted)	113dB
Input-to-Output Dynamic Range	113dB
Total Harmonic Distortion + Noise	< -95dB @ 17dBu
Noise Floor (A-weighted)	-90dBu
Delay Storage	1.2 seconds
Analog Input to Analog Output System Delay	3 milliseconds
Input Impedance (Balanced)	5.4kΩ
Output Impedance (Balanced)	600Ω
Maximum Input Level	+24dBu
Maximum Balanced Output Level	+18dBu
Phantom Power (Per Input)	48V
Input Common-Mode Rejection, 60Hz	80dB
Channel Isolation, 1kHz	108dB
Dimensions (mm)	483L × 260W × 44.5H (mm)
Shipping Weight	3.5kg

For the most current specification information, please visit tri-star.co.in