

AD-1616 16x16 DSP Matrix

The AD-1616 is a DSP Matrix for distribution of sixteen audio sources to sixteen zones. For projects that need more zones, up to four AD-1616 chassis can be combined to deliver 64 audio zones. The AD-1616 enables seamless routing of both digital and analog sources to any desired zone and features a comprehensive set of DSP controls. This includes a 5-band parametric EQ, allowing integrators to fine-tune acoustic characteristics and tailor sound to specific spaces, plus mixing and auto-ducking features facilitate seamless integration of microphones and doorbells, effortlessly prioritizing audio sources and ensuring smooth transitions. Configuration and DSP functions can be customized directly within Integration Designer or with the intuitive web GUI, enabling the AD-1616 to work in standalone mode or within another control system environment.

For amplification, we recommend pairing the AD-1616 with the RTI CP-16i 16 Channel Cool Power® Amplifier.

For projects that need more zones, up to four AD-1616 chassis can be combined to deliver 64 zones.

Key Features

- Sixteen audio sources inputs with eight analog inputs and eight digital inputs.
- Sixteen preamp stereo audio output zones to integrate external power amplifiers or subwoofers. Preamp outputs require external amplification via RTI CP-16i or third-party audio amplifier.
- Distribute sixteen audio source inputs to sixteen zones, expandable to 64 zones by stacking up to four AD-1616 units.
- Fine-tune acoustic characteristics for each zone with a comprehensive set of DSP controls such as 5-band parametric EQ as well as mixing and auto-ducking features.
- Configure and optimize DSP and matrix settings directly within Integration Designer or with the intuitive web user interface.
- Controlled via IR, and two-way control with feedback via RS-232 and IP when installed with RTI or 3rd party control systems.
- Rack mount or free-standing installation with included rack ears and removable feet.



Specifications











Analog Sources.....	8 RCA (Stereo)
Digital Sources.....	8 Coax and 8 Optical
Loop Out	8 Analog + 2 Digital
Amplified Zones	Preamp only
.....	Use a CP-16i for amplification
Preamp Zones	16 Stereo (32 Channels)
Audio Zone Expansion	Up to 64 zones by combining
.....	up to 4 AD-1616 units
Input Impedance.....	20kΩ
Analog Input	2 Vrms Maximum
Analog Output	2 Vrms Maximum. Volume controlled
Volume Range	0-100 (-80dB - 0dB)
Digital Optical Input.....	Up to 192kHz/24Bit sample rate
.....	PCM only
Digital Coaxial Input.....	Up to 192kHz/24Bit sample rate
.....	PCM only
THD-N.....	THD+N <0.01%, 1kHz
.....	THD+N <0.05%, 20Hz-20kHz
SNR	>100 dB, A-weighted - input to output @ pre out
Frequency Response	20Hz – 20kHz +/- 2 dB
Dynamic Range	>95dB A-weighted
Sampling Frequency	48kHz
RTI or 3rd Party Control	IP (RJ45), RS-232 (RJ45)
.....	and IR (3.5mm mono)
AC Input Voltage.....	100-240V~, 50/60Hz, 20W
Power Switch	Front Panel On/Off
.....	with LED power indicator
Mounting.....	Rack mount or free-standing
Dimensions (W x H x D).....	17.2" x 16.4" x 3.5"
.....	437 mm x 416.5 mm x 89mm
Rack Units	2U
Weight	18.12 lb (8.22kg)
Operating Temperature.....	+32°F to +122°F (0°C to +50°C)
Operating Humidity.....	5% to 95% Non-condensing
Warranty	Three Years (Parts & Labor)

All Specifications subject to change without notice.

Included in the Box

AD-1616, AD-1616 faceplate, power cord, rack ears (2) with screws, feet with screws (4)

Features

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16 Sources
 Eight analog audio source inputs and eight digital inputs.
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16 Zones
 Sixteen preamp stereo audio output zones to integrate external power amplifiers or subwoofers.
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Preamp Outputs
 Clean, accurate audio signal with high gain, low noise, and low distortion to integrate external power amplifiers or subwoofers.
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16x16 Audio Matrix
 Distribute sixteen audio source inputs to sixteen zones, expandable to 64 zones by stacking up to four AD-1616 units.
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Audio Source Versatility
 Use either analog or digital audio sources or a combination of both.
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Built-In DSP
 Configure and optimize DSP and matrix settings directly within Integration Designer or with the intuitive web user interface.
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5-Band Parametric Equalizer
 Fine-tune acoustic characteristics, correcting imperfections and tailoring sound to specific spaces.
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Control
 Use RTI or 3rd party control system with multiple control options: Two-way control with feedback via RS-232 and IP, or One-way control with infrared.
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Auto Configuration
 Configure and deploy the AD-1616 with ease within RTI's Integration Designer platform.
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Mounting Options
 Rack mount or free-standing installation with included rack ears and removable feet.