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.

Analog and Digital Source Inputs

Preamp Outputs

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°Cto +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

16 SOURCES

16 Sources
Eight analog audio source inputs and eight digital inputs.

16 ZONES

16 Zones
Sixteen preamp stereo audio output zones to integrate external power amplifiers or subwoofers.

PRE AMP

Preamp Outputs
Clean, accurate audio signal with high gain, low noise, and low distortion to integrate external power amplifiers or subwoofers.

16 x 16 MATRIX

16x16 Audio Matrix
Distribute sixteen audio source inputs to sixteen zones, expandable to 64 zones by stacking up to four AD-1616 units.

DIGITAL & ANALOG INPUTS

Audio Source Versatility
Use either analog or digital audio sources or a combination of both.

DSP

Built-In DSP
Configure and optimize DSP and matrix settings directly within Integration Designer or with the intuitive web user interface.

5-BAND PARAMETRIC EQUALIZER

5-Band Parametric Equalizer
Fine-tune acoustic characteristics, correcting imperfections and tailoring sound to specific spaces.

IP / SERIAL / IR CONTROL

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.

RTI AUTO CONFIG

Auto Configuration
Configure and deploy the AD-1616 with ease within RTI's Integration Designer platform.

2U RACK MOUNT

Mounting Options
Rack mount or free-standing installation with included rack ears and removable feet.