

AD-46-100 - 4x6 DSP Matrix Amplifier - 100W

The AD-46-100 is a 4x6 DSP Matrix Amplifier for distribution of four audio sources to six zones, with four zones amplified at 100 Watts. Two zones feature preamp outputs to integrate external power amplifiers or subwoofers. The AD-46-100 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-46-100 to work in standalone mode or within another control system environment.

Amplification is with an efficient Class D Cool Power® design that optimizes performance while minimizing heat generation. Up to 100W per channel power output (all channels driven) provides for a robust and clear audio experience even in demanding environments. For projects that need more power, integrators can bridge outputs to enable a 200W per channel output.

For projects that need more zones, up to eight AD-46-100 chassis can be combined to deliver 32 amplified and 16 preamp zones.

Key Features

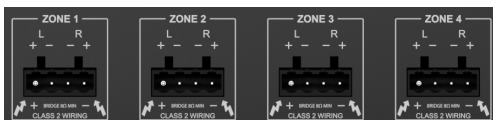
- Four analog audio source inputs and two mirrored digital inputs (mirrored analog inputs).
- Six stereo audio output zones with four amplified stereo and two preamp stereo outputs.
- Class D amplifier provides a robust and clear audio experience with 100 Watts @ 4Ω per channel per zone.
- Distribute four audio source inputs to six zones, expandable to 48 zones.
- Fine-tune acoustic characteristics for each zone with the 5-band parametric EQ, mixing and auto-ducking features.
- Configure and optimize DSP and matrix settings.
- Multiple control options with RS-232, IP and IR.
- Rack mount or free-standing installation.



Analog and Digital Source Inputs



Preamp and Amplified Outputs



Specifications

Analog Sources.....	4 RCA (Stereo)
Digital Sources.....	2 Coax and 2 Optical (Mirror Analog 1 & 2)
Loop Out	4 Analog + 2 Digital
Amplified Zones	4 Stereo (8 Channels)
Preamp Zones	2 Stereo or 4 Mono (4 Channels)
Audio Zone Expansion	Up to 48 zones by combining up to 8 AD-46-100 units
Input Impedance.....	20kΩ
Amplifier.....	Class D
Power @ 8Ω	50W/Ch (all channels driven)
Power @ 4Ω	100W/Ch (all channels driven)
Power @ 8Ω Bridged	200W/Ch bridged (8Ω) (all channels driven)
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 @ 1/8 rated power
.....	THD+N <0.05%, 20Hz-20kHz @ 1/8 rated power
SNR....	>95 dB, A-weighted input to output @rated power @Amp
.....	>100 dB, A-weighted - input to output @ preamp out
Frequency Response	20Hz – 20kHz +/- 2 dB @ 4Ω and 8Ω
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.....	100-120V/ 220-240V~, 50/60Hz, 800W
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	22.88 lb (10.38kg)
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-46-100, AD-46-100 faceplate, power cord, rack ears (2) with screws, 4-pin Phoenix connectors (4), feet with screws (4)

Features



4 Sources

Four analog audio source inputs and 2 digital inputs (mirrored analog inputs).



6 Zones

Six stereo audio output zones with 4 amplified stereo and 2 preamp stereo outputs to integrate external power amplifiers or subwoofers.



Clearly Powerful

Experience the apex of audio power with 100W@4Ω or 50W@8Ω, delivering unparalleled sound quality and clarity. For more power, bridge outputs for 200 Watts per channel.



Ultra-Efficient

Cool Power® Class D amplifier technology ensures efficient heat dissipation and low power consumption.



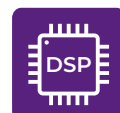
4x6 Audio Matrix

Distribute four audio source inputs to six zones, expandable to 48 zones by stacking up to eight AD-46-100 units.



Audio Source Versatility

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



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

Fine-tune acoustic characteristics, correcting imperfections and tailoring sound to specific spaces.



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.



Auto Configuration

Configure and deploy the AD-46-100 with ease within RTI's Integration Designer platform.



Mounting Options

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