



AD-16x 16x16 Audio Matrix Switch

Wherever you go - let the music move with you.

Ideal for large, multi-zone audio installations, the AD-16x provides routing for 16 audio sources to 16 zones, while RTI Cool Power® amplifiers (CP-450/CP-1650) drive crystal clear audio to every speaker. For added convenience, the AD-16x also features eight remote source inputs, which allows devices located in other rooms to be used as a global source. If the system grows past 16 zones, up to four AD-16x units can be cascaded for up to 64 output zones.* The switch also delivers complete audio management, including parametric equalizing, zone grouping, and balance control — all configurable via a convenient web interface.

Setting the AD-16x apart is the engineering that enables this matrix to become an extension of the RTI ecosystem. At the heart of this powerful integration is the AD64 two-way driver running on an RTI XP processor, providing integrators with unmatched flexibility and programming efficiency. The driver features custom project labeling, allowing integrators to name all of the zones and sources, eliminating tedious programming by ID number. Pushing the user experience to new levels, the driver also allows dynamic audio source management, which tracks the active sources. This allows a user to determine if a source is already in use and select a different one to avoid an inadvertent music change.

Audio Distribution Accessories



*PDM-1
Phone/Doorbell
Module*



*RSP-1
Remote Source
Wall Plate*



*RTI Amplifiers
CP-450 4 Channel - 50W/Ch
CP-1650 16 Channel - 50W/Ch*

RTI Control System



Key Features

- Provides routing of 16 stereo audio sources to 16 zones.
- Eight remote source inputs allow devices located in other rooms to be used as a global source using the RSP-1 accessory.
- Up to four AD-16x units may be source-looped, for up to 64 output zones.*
- Custom project labeling allows integrators to name all of the zones and sources for more efficient programming (via AD64 driver).
- Dynamic audio source management tracks the sources that are active, allowing users to select a different one and avoid inadvertent music changes (via AD64 driver).
- Preamp outputs require external amplification via RTI or third-party audio amplifier.
- Eight bands of parametric audio equalizing in all zones.
- Built-in web interface allows zones to be configured and grouped, allowing multiple outputs to be controlled as a single zone.
- Audio input trim adjustment on each source.

Specifications

AC Input Voltage	100VAC ~ 240VAC, 50-60Hz Switching Power Supply, 20W
Power Switch	Front Panel On/Off with LED
Mounting.....	Rack mount or free standing
Dimensions (W x H x D)	16.9" (430mm) x 5.3" (133mm) x 14.5" (369mm)
Weight	14.5lb (6.6kg)
Operating Temperature.....	32°F - 104°F (0°C - 40°C)
Operating Humidity.....	5% to 95% Non-Condensing
Heat Output.....	68 BTU/hr
Output Zones.....	Sixteen zones of stereo L/R
.....	16 RCA jack pairs (switchable between fixed or variable)
Audio Source Inputs (Local)	Sixteen, 16 RCA jack pairs
Audio Source Inputs (Remote)	Eight, RJ-45 jacks
Loop Outputs.....	Sixteen, 16 RCA jack pairs
Control Input (CTRL IN).....	One, 3.5mm jack
.....	Compatible with industry standard IR repeaters and receivers
Control Output (CTRL OUT).....	One, 3.5mm jack
.....	Compatible with industry standard IR repeaters and receivers
Remote Source IR Inputs	Nine, 3.5mm jacks
.....	Eight discrete, One universal (All)
Mute Input.....	One, 3.5mm jack
.....	Phone Input Sensitivity: AC25V-AC100V 20Hz
.....	Doorbell Sensitivity: AC/DC 3-12VDC
Trigger Output (Status Jack).....	One, 12VDC, 15mA max
+12VDC Voltage Output	One, 12VDC, 500mA max
Serial (RS-232) Port.....	One, Bi-directional DB9
Ethernet Port	One, 10/100Base-T, RJ45 Connection
Unit ID Numbers.....	1-8, Set using 3 switches
Total Harmonic Distortion	<0.03%
S/N Rating.....	92dB (@ mute +1) , 100dB(@ mute)
Frequency Response.....	20Hz ~ 20KHz +/- 0.5 dB
Input Overload.....	2.1V
Input Impedance.....	22K ohms
Channel Separation @1KHz	>60dB
Crosstalk Between Sources	>90dB
Crosstalk Between Zones	90dB
Treble Control @10KHz.....	8.5dB +/- 0.5 dB
Bass Control Range @100Hz	8.5dB +/- 0.5 dB
Equalizer Bands (8).....	32Hz, 64Hz, 256Hz, 512Hz, 1024Hz, 2048Hz, 4096Hz, 16380Hz
Warranty	One Year (parts & labor)

All features and specifications subject to change without notice

*NOTE: Up to eight AD-16x units may be used to reach 128 output zones using Infrared control. There is a limit of four AD-16x units when the AD64 two-way driver is used, for a maximum of 64 output zones.



Rear View

Remote Technologies Incorporated

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RTI User Interfaces

RTiPanel	Mobile & PC Software Interface (App)
SURFiR	Companion Remote Control
T1-B+	Remote Control
T2i	Remote Control
T2x	Remote Control
T3x	Remote Control
RKM-1+	In-Wall Audio Distribution Keypad
RK1+	2-4-8 Button In-Wall Keypad
KX1	1.2" Audio Distribution Keypad
KX2	2.8" In-Wall Touchpanel Keypad
KX3	3.5" In-Wall Touchpanel Keypad
KX7	7" In-Wall Touchpanel
KX10	10" In-Wall Touchpanel
CX7	7" Countertop/Under-Cabinet Touchpanel
CX10	10" Countertop/Under-Cabinet Touchpanel

RTI Control Accessories

RP-4	RF Control Processor
XP-3	Advanced Control Processor
XP-6	Advanced Control Processor
XP-8v	Advanced Control Processor
RM433	433MHz RF Antenna
ZM24	2.4GHz Zigbee Transceiver
ZW-9	Z-Wave® Interface Module
CB-8	Touchpanel Connecting Block
CM-232	RS-232 Communication Module
CPB-1	Control Port Connecting Block
ECB-5	IR Connecting Block
ESC-2	Ethernet to Serial Converter
IPE-4	IR Port Expander
PCM-4	Port Control Module
RCM-4	Relay Control Module
vIRsa Mouse	IR Emitter

RTI Audio/Video Distribution

AD-4x	4x4 Audio Distribution System
AD-8x	8x8 Audio Distribution System
AD-16x	16x16 Audio Distribution Matrix Switch
CP-450	4 Channel Cool Power® Amplifier
CP-1650	16 Channel Cool Power® Amplifier
VHD-4	4x4 HDBT Video Matix Switch
VHD-8	8x8 HDBT Video Matix Switch
VHT-1	HDBT Video Transmitter
VHR-1	HDBT Video Receiver



It's Under Control®