



## 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)
Operational Temperature .....	32°F - 104°F (0°C - 40°C)
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)
S/N @ Rated power, IEC A-wtd, Source Input Shorted .....	92dB (mute +1)
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
THD+ Noise.....	<0.03%
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



Rear view

## RTI User Interfaces

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



## RTI Control Accessories

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

## RTI Audio Distribution

<b>AD-4x</b>	<b>Audio Distribution System</b>
<b>AD-8x</b>	<b>Audio Distribution System</b>
<b>AD-16x</b>	<b>Audio Distribution Matrix Switch</b>
<b>CP-450</b>	<b>4 Channel Cool Power® Amplifier</b>
<b>CP-1650</b>	<b>16 Channel Cool Power® Amplifier</b>



It's Under Control®

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