

5 Inch Touch Screen Kit

Turnkey solution for local touchscreen control of Avi-on lighting control systems

High-Resolution

High-brightness color TFT LCD, Integrated high-resolution capacitive touchscreen

Customizable Interface

Design the screen layout, configure the controller through the RS-232 Interface, and configure to control third-party AV devices

In-Wall Mounting

The ultra-thin bezel, near-flush mount design, and compact form factor

Control Unit & RS-232 Interface

The full range of Avi-on two-way control commands is supported via the RS-232 interface

The **Avi-on® 5" Touch Screen Kit** provides a turnkey solution for integrating touch-screen controls into Avi-on lighting control systems. The touch screen is fully customizable to support any desired layout. Communication to the Avi-on network is achieved through a system controller and the Avi-on RS-232 Serial Interface. **The full range of Avi-on two-way control commands is supported** via the RS-232 interface.

The ultra-thin bezel, **near-flush mount design** (only 0.47 in / 12 mm off the wall), and compact form factor complement any environment with a clean, modern aesthetic. Available in Black or White. Wall-mount only.

PRODUCT OVERVIEW

Installation

Mount the touch screen on the wall in the desired location. Install the system controller in a suitable area with reliable access to the Avi-on mesh network (near lighting controllers or power packs). Connect an Ethernet cable between the touch screen and the controller, and wire the RS-232 Interface to the controller. Apply power to the controller and provide 12 VDC power to the RS-232 Interface.

Programming

Design the screen layout using the provided Windows-based software toolkit, and configure the controller interface to communicate through the RS-232 Interface (standard serial configuration).

Program the control commands according to the Avi-on Serial Control Protocol documentation. Some advanced control actions may require additional configuration on the Avi-on network. Programming services for lighting control applications are available from Avi-on.

Applications

Ideal for conference rooms, control rooms, stadium control centers, and any location requiring a locally communicating, customizable touch-screen interface.

The touch screen can also be configured (by others) to control a wide range of third-party AV devices.

ORDERING INFORMATION

Part Number	Description	Application	Color
AVI-RTI-IST5-B	5" Touch Screen	Wall or Table Control	Black
AVI-RTI-IST5-W	5" Touch Screen	Wall or Table Control	White
AVI-KIT-RTI-XP3	Touch Screen Control Unit and RS232 Interface	Touch Screen Controller	-
AVI-RTI-IST5-FMK	Wall Mount Kit	Wall Mount	-

Project		Location/ Type	
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SPECIFICATIONS

Touch Screen

Power:	(Power supply not included) +12 VDC, 2A, or PoE (802.3af)
Power Management:	Adjustable backlight / proximity sensor
Touchscreen Display:	High-brightness color IPS LCD, FWVGA (854 × 480 pixels) with true-black display filter, Integrated high-resolution capacitive-touch screen
Display Size:	5" (127 mm) diagonal, 16:10 aspect ratio
Display Backlight:	LED backlit, 400 nit
Ethernet Port:	RJ45, 10/100/1000 Base-T
PoE Camera:	Color CMOS, 2 MP, 15–30 fps at 1920 × 1080
Microphone:	Built-in digital microphone array with mute button; hardware-based echo cancellation
Speakers:	Two (2), 8 Ω, 1 Watt, 100–20 kHz Communications
System Memory:	256 MB Flash (non-volatile) memory
Macro Capability:	Total number of macros limited only by available memory
Operating Temperature:	+32°F to +122°F (0°C to +50°C)
Operating Humidity:	0.5% to 95% non-condensing
Mounting:	Wall-mount
Installation:	U.S. standard single or dual gang
Outer Bezel Dimension (W × H × D)	5.24" × 3.33" × 0.43" (W × H × D) (133 mm × 84.5 mm × 10.9 mm)
Wall Cut-Out Dimension:	2.15" × 3.6" (W × H)
In Wall (Wall Box) Depth:	1.34" (34.0 mm); allow additional space for the RJ-45 connector
Weight:	7.05 oz (200 g)

Control Processor

Power Supply:	+12 VDC, 1A, or PoE (802.3af)
Multi-Purpose Output Port:	(Port 1) One custom 3.5 mm, 4-conductor jack. Designed for RTI modules as well as industry-standard IR emitters.
IR Output Ports:	(Ports 2 & 3) Two 3.5 mm jacks: Compatible with industry-standard IR emitters.
IR Output Drive:	100 mA maximum (per port, adjustable) Infrared
Frequency Transmission Range:	15 kHz – 460 kHz
RS-232 Port:	One, bi-directional
RJ45 Ethernet Port:	One 10/100Base-T with Power-over-Ethernet (Class 3)
Relays:	Two, 5 Amps @ 30 VDC or 12 V / 100 mA
Trigger Sense Inputs:	Two, 3–24 VDC, Off/Low voltage condition must not exceed 1 VDC
USB Ports:	One
Mounting:	Wall-mount or free-standing
Operating Temperature:	+32°F to +122°F (0°C to +50°C)
Operating Humidity:	0.5% to 95% non-condensing
Dimensions (W × H × D):	7.0" × 3.0" × 1.0" (177 mm × 76 mm × 25 mm)
Weight:	6.4 oz (100 g)

RS-232 Serial Interface

Input Voltage:	12–24 VDC
Power Consumption:	17 mA
CC Input:	12–24 VDC non-powered contact closure detection (momentary)
Direct Connect Input:	Compatible with all Avi-on Direct Connect™ Motion/Daylight Sensors
Size:	2.30 in × 1.43 in × 0.75 in (58.2 mm × 36.4 mm × 19 mm)
Mounting:	Removable mounting tabs
Weight:	0.45 oz (16 g)
Terminal Blocks:	22–16 AWG wires
Operating Temperature:	–22°F to +158°F (–30°C to +70°C)
Storage Temperature:	–40°F to +185°F (–40°C to +85°C)
Humidity Rating:	95% non-condensing
Radio Frequency:	2.4 GHz
Wireless Standard:	BLE 5.3 with Mesh
Point-to-Point Range*:	80 ft with obstructions; 350 ft unobstructed
Security:	AES 128-bit encryption for device-to-device communication AES 256-bit encryption for device-to-cloud communication
Warranty:	5 years; 10 years optional
Regulatory:	FCC ID: 2AFZI-AVIBG21 IC ID: 20544-AVIBG21 BQB: DID: D063032 CE: EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021

*When communicating through the mesh, range is essentially unlimited (5000ft+)

Wall Mount

Dimensions (W/H/D):	160mm (6.3") / 210.8mm (8.3") / 44mm (1.73")
Shipping Dims (W/H/D):	275mm (10.8") / 195mm (7.6") / 55mm (2.16")
Weight:	0.6Kg, 1.32lbs
Material:	Moisture resistant MDF (compliant with TSCA Title VI).
To be installed in	½" drywall.

ADDITIONAL IMAGES



**Integrated Central Processor +
Serial Interface**
AVI-KIT-RTI-XP3



5" White Touch Screen
AVI-RTI-IST5-W



Flush Mount Kit
AVI-RTI-IST5-FMK

WIRING

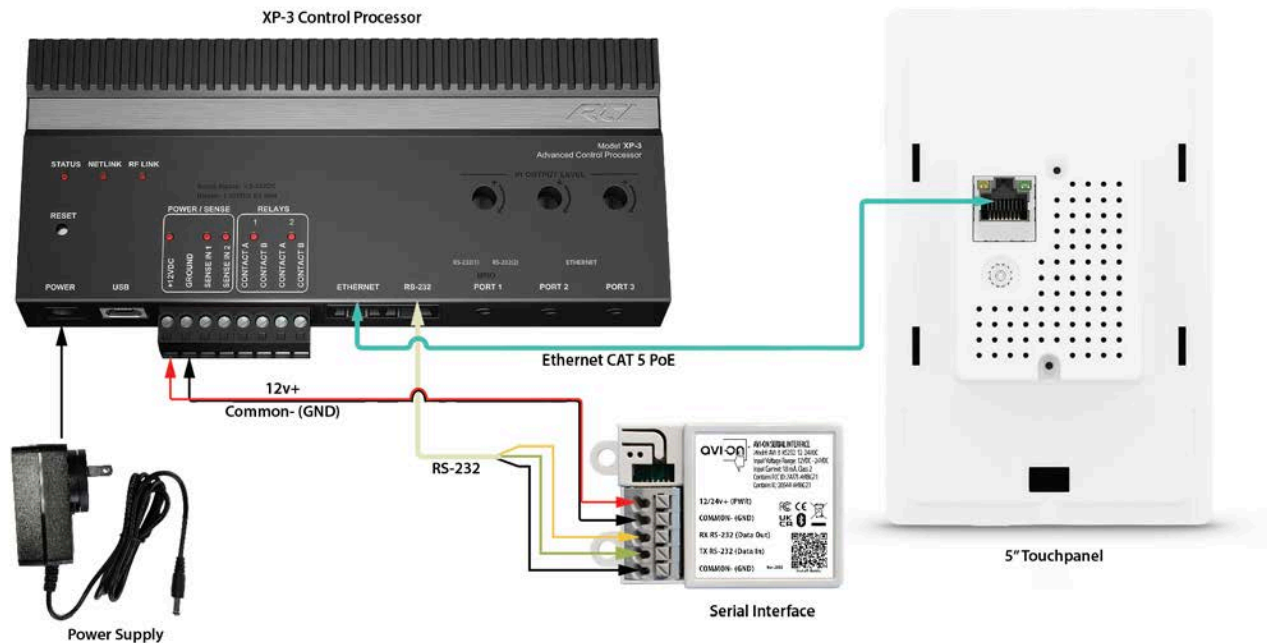


Figure 1. Wiring

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