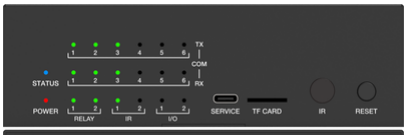

Compact AV Control Processor with 6-Port Serial, Relay & Dual Gigabit PoE

Programmable room controller for managing matrices, displays, lighting, and automation over IP

MPN: CR-HOST6S

Version 1.0

Important: For optimum performance and safety, please read these instructions carefully before connecting, operating, or adjusting this product. Keep this manual for future reference.

Surge Protection Recommended: This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended.

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1. INTRODUCTION

The KanexPro CR-HOST6S is a networked integrated control system host designed for professional AV scenarios. As the system control core, it provides unified access, centralized management, and linkage control for multiple types of devices. It supports programmable configuration and a programmable human-machine interface, facilitating rapid deployment, flexible expansion, and secondary integration. The product is equipped with 6 bidirectional serial ports (COM 1–5: RS-232; COM 6: RS-232/RS-422/RS-485), 2 IR outputs, 2 relay ports, 2 digital I/O inputs, and dual Gigabit Ethernet ports with PoE.

2. FEATURES

- ✓ ARM Cortex-A55 architecture, 1.8GHz, 4GB DDR4 RAM, 32GB eMMC, Android 11
- ✓ 6× bidirectional serial ports — COM 1–5: RS-232; COM 6: RS-232/RS-422/RS-485
- ✓ 2× IR outputs with IR learning (20KHz–60KHz carrier)
- ✓ 2× Relay ports for lights, doors, curtains, and motorized screens
- ✓ 2× Digital inputs for sensor/dry contact signal access
- ✓ Dual Gigabit Ethernet (10/100/1000M) with PoE — TCP/IP, UDP, HTTP, WebSocket
- ✓ Built-in web server with password protection and online firmware upgrade
- ✓ Built-in RTC real-time clock with power-off retention
- ✓ Dual power supply: DC 24V/1A or PoE
- ✓ Port status LEDs for on-site debugging and fault location
- ✓ TF card expansion (reserved) for future storage/function expansion
- ✓ Factory reset: one-click restore to default settings

3. PACKAGE CONTENTS

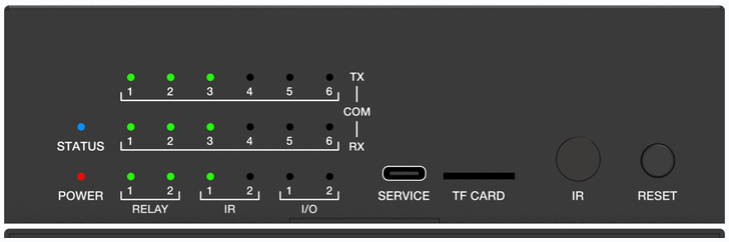
- 1× Integrated Control System Host
- 2× 2-pin 3.5mm Phoenix Connector
- 6× 3-pin 3.5mm Phoenix Connector
- 1× 4-pin 3.5mm Phoenix Connector
- 1× 5-pin 3.5mm Phoenix Connector
- 2× 5V IR Blaster Cable
- 2× Mounting Ear
- 4× Machine Screw
- 2× Hook & Loop
- 1× User Manual

Specifications

Technical	
CPU	ARM Cortex-A55, 1.8GHz
Operating System	Android 11
RAM	4GB DDR4
Flash Memory	32GB eMMC
LEDs	1× Power (Red), 1× Status (Blue), 6× COM TX (Yellow-Green), 6× COM RX (Yellow-Green), 2× IR Output (Yellow-Green), 2× Relay (Yellow-Green), 2× I/O Input (Yellow-Green)
Connection	
COM 1–5	5× 3-pin Phoenix connector — RS-232 bidirectional (TXD/GND/RXD), 2400–115200bps
COM 6	1× 5-pin Phoenix connector — RS-232/RS-422/RS-485 bidirectional, 2400–115200bps
IR Output	2× 2-pin Phoenix connector — IR control signal output (20K–60KHz)
Relay	2× 2-pin Phoenix connector — isolated low-voltage relay (2A 30VDC / 1A 125VAC)
I/O Input	1× 3-pin Phoenix connector — GPIO dry contact input (0–24V)
LAN	2× 10/100/1000M Gigabit Ethernet RJ45
Service	1× USB-C (debug, reserved)
TF Card	1× TF card slot (storage expansion, reserved)
Reset	1× Factory reset button
IR Learning	1× IR learning window
Mechanical	
Housing	Metal enclosure, black
Installation	Flat mount (mounting ears included)
Dimensions	5.71″ × 5.31″ × 1.73″ (145 × 135 × 44 mm)
Weight	1.57 lbs (710g)
Power Supply	DC 24V/1A or PoE
Power Consumption	6.5W
Operating Temp	32°F – 104°F (0°C – 40°C)
Storage Temp	-4°F – 140°F (-20°C – 60°C)
Operating Humidity	20%–80% RH (non-condensing)
Storage Humidity	10%–90% RH (non-condensing)
Package Contents	
1×	Integrated Control System Host
2×	2-pin 3.5mm Phoenix Connector
6×	3-pin 3.5mm Phoenix Connector
1×	4-pin 3.5mm Phoenix Connector
1×	5-pin 3.5mm Phoenix Connector
2×	5V IR Blaster Cable
2×	Mounting Ear + 4× Machine Screw
2×	Hook & Loop
1×	User Manual

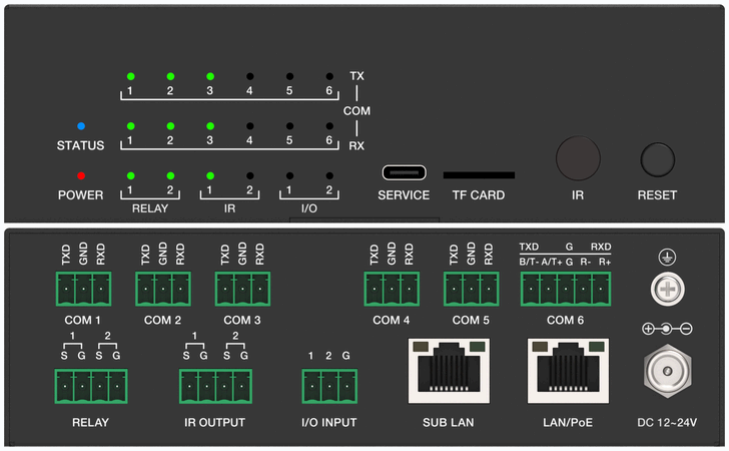
Operation Controls

5.1 FRONT PANEL



#	NAME	DESCRIPTION
1	**STATUS LED (Blue)**	On when device functions normally after boot
2	**POWER LED (Red)**	On when device is powered
3	**RELAY 1/2 LED**	On when relay port is closed; off when disconnected
4	**IR 1/2 LED**	Flashes when IR output is transmitting data
5	**I/O 1/2 LED**	Flashes on signal level fluctuation at I/O input port
6	**TX/RX COM LEDs**	On when COM 1–6 transmits/receives data
7	**SERVICE (USB-C)**	Reserved port for system debugging
8	**TF CARD**	Reserved port for storage expansion
9	**IR Learning**	IR receiver window — collects IR commands from target device remote

5.2 REAR PANEL



#	NAME	DESCRIPTION
1	**COM 1–5**	5× RS-232 bidirectional (3-pin Phoenix: TXD/GND/RXD), 2400–115200bps
2	**COM 6**	1× RS-232/RS-422/RS-485 (5-pin Phoenix), 2400–115200bps
3	**Ground**	Chassis ground terminal
4	**RELAY**	2× isolated low-voltage relay (2-pin Phoenix), 2A 30VDC / 1A 125VAC
5	**IR OUTPUT**	2× IR emitter output (2-pin Phoenix), 20K–60KHz carrier
6	**I/O INPUT**	GPIO dry contact input (3-pin Phoenix), 0–24V
7	**SUB LAN**	Gigabit Ethernet RJ45 — subnet (default: 169.254.0.101/255.255.0.0)
8	**LAN/PoE**	Gigabit Ethernet RJ45 + PoE — primary (default: 192.168.0.101/255.255.0.0)
9	**DC 24V**	DC 24V/1A power input (alternative to PoE)
10	**RESET**	Reboot (1–5s hold) or factory reset (5s+ hold)

Application Example

APPLICATION DIAGRAM

Compact AV Control Processor with 6-Port Serial, Relay & Dual Gigabit PoE — CR-HOST6S

How it works: The CR-HOST6S connects to the network via PoE switch (no separate power needed). An integrator configures device control via the built-in web GUI from any browser. Each serial port independently manages a device — matrix switching, projector power, DSP volume, display input. Relays trigger motorized screens and lighting. IR outputs control legacy devices. All automation runs on the built-in RTC scheduler.

TROUBLESHOOTING

ISSUE	SOLUTION
Device does not power on	Verify DC 24V adapter is connected or PoE switch is supplying power. Check POWER LED (red).
Serial device not responding	Confirm baud rate matches device setting (2400–115200). Verify TXD/RXD wiring. Check TX/RX LEDs on front panel for activity.
Cannot access web GUI	Verify Ethernet cable on LAN/PoE port. Default IP: 192.168.0.101. Ensure PC is on same subnet (255.255.0.0). Try different browser.
IR commands not working	Check IR blaster cable connection. Verify carrier frequency matches target device (20–60KHz). Re-learn IR codes via the IR learning window.
Relay not triggering	Check RELAY LED on front panel. Verify wiring polarity (PIN1=signal in, PIN2=signal out). Test via web GUI relay toggle.
Factory reset needed	Press and hold RESET button on rear panel for 5+ seconds. LAN IP restores to 192.168.0.101, SUB LAN to 169.254.0.101, password to “admin”. User projects are NOT deleted.