

# 4K HDMI Matrix Switch Over HDBase-T with Power Over Ethernet (PoE)

VEEMUX®

## Route and distribute Ultra-HD 4Kx2K, Multi-channel Audio, Ethernet, IR, and Power up to 375 feet using CATx cable

- Configure and control the switch through Ethernet, serial port, front panel buttons, or IR remote control.
- Supports Ultra-HD 4Kx2K resolutions to 4096x2160, HDTV resolutions to 1080p, and computer resolutions to 1920x1200.
  - With CAT5e (24 AWG), up to 250 feet.
  - With CAT6 (23 AWG), up to 350 feet.
  - With CAT7 (23 AWG), up to 375 feet.
- Each input can be independently connected to any or all outputs.
- HDCP compliant.
- Supports Power over Ethernet (PoE) - power supply not required at the remote unit.
- HDMI features supported:
  - 24/36-bit Deep Color
  - x.v.Color
  - Dolby TrueHD, DTS-HD Master Audio, Dolby Digital, DTS 7.1 and LPCM
  - 3D
  - Bandwidth up to 300 MHz (9 Gbps)
  - Support for CEC (consumer electronic control) compatible devices.
  - Lip Sync
- No loss of audio or video quality between the switch and remote units.
- Bi-directional IR from input and output locations.
- Supports external and internal EDID settings.
- Compact 2RU design.
- Mounting tabs included.
- Features an Ethernet port on the switch and receivers for connecting network devices such as 100Base-T routers, hubs, smart TVs, or smart Blu-Ray players.

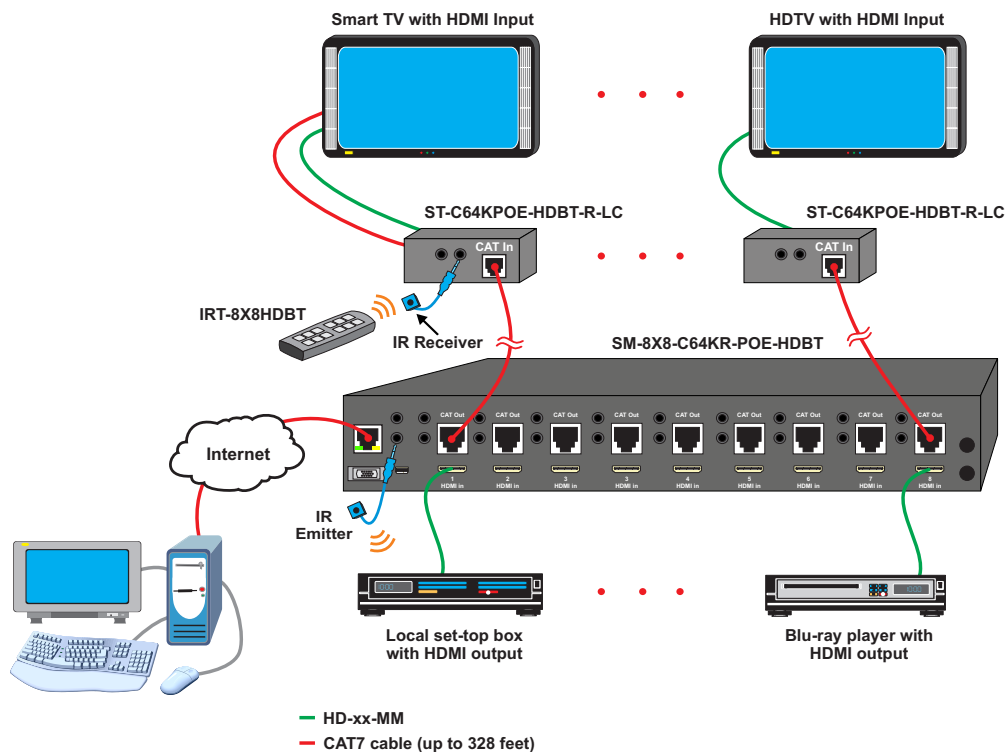


### VEEMUX® SM-8X8-C64KR-POE-HDBT (Front & Back)

The VEEMUX® 4K HDMI Matrix Switch Over HDBase-T with Power Over Ethernet routes uncompressed digital HDMI signal and IR from eight HDMI video sources to eight displays (projectors, monitors, etc.) and speakers via inexpensive CATx cable using HDBase-T technology. It is capable of connecting to as many as eight HDMI video sources directly and eight video displays via receivers with a maximum extension of 375 feet from the switch using CAT7 cable. Power over Ethernet (PoE) provides power to all connected receivers.



## Configuration and Cable Illustration



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## Specifications

### SM-8X8-C64KR-POE-HDBT

- Eight female HDMI input connectors
- Eight female RJ45 HDBase-T connectors for sending/receiving ultra high definition video, audio, IR, Ethernet and DDC signals.
- Eighteen female 3.5mm ports for IR transmitters and receivers.
  - IR transport channel is bi-directional - the transmitter or receiver can be connected to the switch.
  - "All IR" input or output transmits signals to multiple transmitters or receivers within direct line-of-sight.
- One female Ethernet port for Telnet and web server control, and/or for connecting a network device such as a 100Base-T router, hub, smart TV or smart Blu-Ray player.
- One female DB9 connector for RS232 control.
- One Mini USB Type B connector for firmware updates only.

### Dimensions

- WxDxH (in): 17.25x10.x3.6 (438x254x91 mm)

### Power

- 100 to 240 VAC at 50 or 60 Hz via AC adapters.
- One powers the switch and the other provides Power over Ethernet (PoE).
- Input voltage: 24 VDC.
- Power consumption: 65W.

### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Operating/storage relative humidity: 20 to 90% non-condensing RH.

### Regulatory Approvals

- CE, FCC, RoHS

### Warranty

- Two years.

### Package Includes

- One 8x8 HDMI Matrix Switch Over HDBase-T
- Two 24V power supplies (one for PoE)
- One IR remote
- Two IR emitters
- Two IR receivers
- Mounting tabs
- User manual

### Remote Unit (Receiver)

#### Video Output

- Supports Ultra-HD 4Kx2K resolutions to 4096x2160, HDTV resolutions to 1080p, and computer resolutions to 1920x1200
- One female HDMI output connector.
- One female RJ45 HDBase-T connector for sending/receiving high definition video, audio, IR, Ethernet and DDC signals.
- Two female 3.5mm ports for connecting an IR transmitter or receiver.
- One female Ethernet port for connecting a network device such as a 100Base-T router, hub, smart TV, or smart Blu-Ray player.

#### Dimensions

- WxDxH (in): 4.02x4.53x0.98 (102x115x25 mm)

#### Power

- Powered by matrix switch via Power over Ethernet (PoE).
- Power consumption: 7W.

#### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Operating/storage relative humidity: 20 to 90% non-condensing RH.

#### Regulatory Approvals

- CE, FCC, RoHS.
- TAA compliant.

#### Cables

- Use HD-xx-MM cable to connect an HDMI source or display.
  - Inputs
    - ◆ 8-bit resolution: up to 49 ft (15 m).
    - ◆ 12-bit resolution: up to 33 ft (10 m).
  - Output: 20 ft (6.1 m).
- Use CAT5e/6/7 solid straight through cables for TIA/EIA 568B wiring terminated with standard RJ45 connectors.
  - CAT5e (24 AWG), up to 250 feet.
  - CAT6 (23 AWG), up to 350 feet.
  - CAT7 (23 AWG), up to 375 feet.
- Cables not included.

#### Compatible NTI Products

- Combine NTI's video converters, extenders, and scalers for complex applications.
  - Ultra Low-Cost VGA + Audio to HDMI Converter Cable (VGAA-HD-ULC)
    - ◆ Supports HDTV resolutions to 1080p only.
    - ◆ Requires USB power to operate.
  - VGA/Component Video to HDMI Converter (VGACMP-HD)
    - ◆ Supports HDTV resolutions to 1080p and computer resolutions to 1920x1200 only.
  - VGA/Component Video/HDMI Scaler/Converter (PCHD-HDMI-SCALER)
    - ◆ Supports HDTV resolutions to 1080p and computer resolutions to 1920x1200 only.
  - Multiple HDMI Extender Over HDBase-T with Power over Ethernet (ST-C64K-HDBT-L8-R)

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## Control Methods

### Front Panel Interface

- Configuration and control can be done using the front panel buttons.
- LED display shows which input device is being used by each output device.

### RS232

- Configuration and control can be done through the serial port.

### IR Remote Control

- IR control of matrix switch:
  - The matrix switch can be controlled with the included IR remote using the built-in IR receiver on the switch or remotely via an IR receiver or emitter connected to the remote unit.
- IR control of connected sources:
  - HDMI sources can be controlled remotely using the source's IR remote control through the remote unit's IR receiver and switch's emitter.
- IR control is bi-directional.

### Ethernet Control

- Configuration can be done over the Internet via web server or telnet.
- 10/100Base-T Ethernet interface.
  - **Web Server**
    - ◆ Control the unit's power, input/output ports, and EDID.
    - ◆ Reset the IP configuration of a device.
  - **Telnet**
    - ◆ Commands are similar to RS232 commands.

### HDMI Matrix Switch Over HDBase-T with Power Over Ethernet

NTI Part #	HDMI Inputs	RJ45 Outputs
SM-8X8-C64KR-POE-HDBT	8	8

### HDMI HDBase-T POE Receiver

NTI Part #	Supported Features
ST-C64KPOE-HDBT-R-LC	4K HDMI, IR, Ethernet, Power over Ethernet