Overview

The HDMI/RS232 Extender Kit (500454-PoE) allows HDMI equipment to be connected up to 131 ft (40m) at 4K/30 (4:4:4) or 4K/60 (4:2:0) resolutions, or 230 ft (70m) at resolutions up to 1080p via one (1) Cat 5e/6 unshielded twisted pair cable in a point-to-point configuration. For ease of cabling the extender kit features PoE (PD), including PoC, on both the transmitter and receiver. The unit supports RS232 and bidirectional IR for end devices remote control. This kit comes with one (1) transmitter, one (1) receiver, one (1) IR Emitter, and one (1) IR sensor.

Applications

Digital signage, commercial AV systems, classroom projector systems, boardroom systems, collaborative PC systems, medical information systems.

Key Features

- Supports 1080p deep color and full 3D to distances of up to 230 ft (70m) over single Cat5e/6
- Supports 4K @ 24/25/30Hz (4:4:4) and 4K/60 (4:2:0) to distances of up to 131 ft (40m) over single Cat5e/6
- Supports RS232
- Supports Bi-directional IR pass through
- Supports all digital audio modes
- PoE (PD) & PoC on both the transmitter and receiver
- Includes IR emitter and IR sensor (carrier-wave)
- Compatible with 500454 (non PoE version)

Specification Chart

<table>
<thead>
<tr>
<th>Environment</th>
<th>HDMI 1.4a (3D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices</td>
<td>DVDs, Blu-ray players, projectors, monitors, TVs, PCs, laptops, servers supporting HDMI.</td>
</tr>
<tr>
<td>Transmission</td>
<td>Transparent to the user</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>340MHz</td>
</tr>
<tr>
<td>Signals</td>
<td>HDMI 1.4a protocol</td>
</tr>
<tr>
<td>Connectors</td>
<td>One (1) HDMI receptacle, One (1) RJ45S for Cat5e/6 unshielded or shielded twisted pair, One (1) DB9 for RS232, Two (2) 3.5mm sockets for IR Sensor &amp; Emitter (carrier-wave), One (1) 2.1mm locking power connector.</td>
</tr>
<tr>
<td>Cables not included</td>
<td></td>
</tr>
</tbody>
</table>

Max. Distance*

<table>
<thead>
<tr>
<th>Resolutions</th>
<th>4K/30 (4:4:4): Cat 5e/6: 131ft (40m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4K/60 (4:2:0): Cat 5e/6: 131ft (40m)</td>
</tr>
<tr>
<td></td>
<td>1080p: Cat 5e/6: 230ft (70m)</td>
</tr>
<tr>
<td></td>
<td>1080p Deep Color: Cat 5e/6: 230ft (70m)</td>
</tr>
</tbody>
</table>

*Based on a maximum length of 6.6 ft (2m) of HDMI cable per end

When installed in an electrically noisy environment, STP cable must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used.

RJ45 Pin Configuration

<table>
<thead>
<tr>
<th>RJ45</th>
<th>Pin 1 (R)</th>
<th>Pin 2 (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin 3 (R)</td>
<td>Pin 6 (T)</td>
<td></td>
</tr>
<tr>
<td>Pin 4 (R)</td>
<td>Pin 5 (T)</td>
<td></td>
</tr>
<tr>
<td>Pin 7 (R)</td>
<td>Pin 8 (T)</td>
<td></td>
</tr>
</tbody>
</table>

Reverse Polarity Sensitive Use EIA/TIA 568 A or B, straight-through wiring.

Cable

One (1) Category 5e or better twisted pair cables required.

Power Supply

One (1) 110-240V/48VDC power supply with interchangeable blades.

Power Consumption

Transmitter: 1.6 Watt
Receiver: 3.2 Watt

Temperature

Operating: 0º to 40º C. Storage:-20º to 85º C. Humidity: up to 95% non-condensing.

Enclosure

Metal

Dimensions

4.40” x 3.00” x 1.00” (11.2 x 7.6 x 2.5 cm)

Weight

1.4 lbs (.6 kg)

Compliance

Regulatory: FCC, CE, RoHS

Warranty

2 years

Order Information

500454-PoE HDMI/RS232 Extender Kit, PoE, HDBT, UHD-4K (UPC: 627699014547)
500454-PoE-RX, HDMI/RS232 Receiver, PoE, HDBT, UHD-4K (UPC: 627699814543)

Accessories

500905 Rackmount Transceiver Chassis 3 Port
500920 Rackmount Transceiver Chassis 16 Port
Typical Application Schematic