

**Overview**

The HDMI 4x4 Matrix Switch (500415) allows up to four (4) different HDMI sources to be connected and/or distributed to up to four (4) HDMI displays via Cat5e/6 unshielded twisted pair cables.

The product works in conjunction with MuxLab's HDMI IR/Receivers (500407 or 500417) supporting up to 150 ft (45m) at 1080p Deep Color via Cat5e cable.

**Applications**

Commercial and residential AV systems, classroom projector systems, digital signage, boardroom systems, collaborative PC systems, medical video systems.



**Key Features**

- HDMI 1.3a 4x4 matrix via two (2) Cat5e/6
- Control options: manual, IR, USB, GUI, Web
- Up to 150 ft (45m) @ 1080p/8-bit via Cat5e
- Up to 90 ft (27m) @ 1080p/12-bit via Cat5e
- Supports IR matrix and source control
- Includes four IR emitters plus wireless remote

Specifications																
<b>Environment</b>	HDMI 1.3A															
<b>Devices</b>	LCD and Plasma TVs, DVD and Blu-Ray players, monitors, projectors, PCs, laptops, home theatre systems, home theater PCs, game consoles, servers that support HDMI.															
<b>Transmission</b>	Transparent to the user															
<b>Bandwidth</b>	Video: 225 MHz															
<b>Signals</b>	HDMI 1.3a protocol															
<b>Matrix Switching Time</b>	Maximum three (3) seconds															
<b>Connectors</b> <i>HDMI Cables not included.</i>	Source Input: Four (4) HDMI receptacles Local Output: Four (4) HDMI receptacles Distributed Output: Four (4) UTP/STP outputs via eight (8) RJ45S connectors for Cat 5e/6 UTP/STP cabling															
<b>Maximum Distance</b> <b>HDMI Switch to Display</b> <i>Based upon a maximum length of 6.6 ft (2 m) of HDMI cable per end.</i>	<table border="1"> <thead> <tr> <th></th> <th>Cat 5e</th> <th>Cat 6</th> </tr> </thead> <tbody> <tr> <td><b>480i/p</b></td> <td>300 ft (91 m)</td> <td>300 ft (91 m)</td> </tr> <tr> <td><b>720p, 1080i</b></td> <td>300 ft (91 m)</td> <td>300 ft (91 m)</td> </tr> <tr> <td><b>1080p/8-bit</b></td> <td>150 ft (46 m)</td> <td>200 ft (61 m)</td> </tr> <tr> <td><b>1080p/12-bit</b></td> <td>90 ft (27 m)</td> <td>150 ft (46 m)</td> </tr> </tbody> </table> <p><i>NOTE: STP cables must be used in an electrically noisy environment. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used.</i></p>		Cat 5e	Cat 6	<b>480i/p</b>	300 ft (91 m)	300 ft (91 m)	<b>720p, 1080i</b>	300 ft (91 m)	300 ft (91 m)	<b>1080p/8-bit</b>	150 ft (46 m)	200 ft (61 m)	<b>1080p/12-bit</b>	90 ft (27 m)	150 ft (46 m)
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<b>RJ45 Pin Configuration</b> <i>Reverse Polarity Sensitive</i> <i>Use EIA/TIA 568A or 568B</i> <i>Straight-through wiring</i>	<table border="1"> <thead> <tr> <th>RJ45 A (HDMI A)</th> <th>RJ45 B (HDMI B)</th> </tr> </thead> <tbody> <tr> <td>Pin 1 (R) Pin 2 (T)</td> <td>Pin 1 (R) Pin 2 (T)</td> </tr> <tr> <td>Pin 3 (R) Pin 6 (T)</td> <td>Pin 3 (R) Pin 6 (T)</td> </tr> <tr> <td>Pin 4 (R) Pin 5 (T)</td> <td>Pin 4 (R) Pin 5 (T)</td> </tr> <tr> <td>Pin 7 (R) Pin 8 (T)</td> <td>Pin 7 (R) Pin 8 (T)</td> </tr> </tbody> </table>	RJ45 A (HDMI A)	RJ45 B (HDMI B)	Pin 1 (R) Pin 2 (T)	Pin 1 (R) Pin 2 (T)	Pin 3 (R) Pin 6 (T)	Pin 3 (R) Pin 6 (T)	Pin 4 (R) Pin 5 (T)	Pin 4 (R) Pin 5 (T)	Pin 7 (R) Pin 8 (T)	Pin 7 (R) Pin 8 (T)					
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<b>Cable</b>	Two (2) Cat 5e/6 UTP/STP cables (or better) required per port															
<b>Power Supply</b>	One (1) 110-240V/12VDC, 2.5A power supply with three interchangeable blades															
<b>IR Remote</b>	Includes four (4) IR emitters and one (1) handheld remote control															
<b>Compatible Receivers</b>	500407, 500417															
<b>Power Consumption</b>	30 Watts															
<b>LED Diagnostics</b>	Power (Blue) Interconnection Matrix (Green)															
<b>Temperature</b>	Operating: 0°C to 40°C Storage: -20°C to 85°C Humidity: Up to 95% non-condensing															
<b>Dimensions</b>	1U Rack Mountable: 19.00" x 7.50" x 1.75" (48.26 cm x 19.05 cm x 4.45 cm)															
<b>Weight</b>	4.0 lb (1.8 kg)															
<b>USB Cable</b>	Includes one (1) USB Type A to Type B cable															
<b>Software</b>	Includes MuxLab Control Software on USB Flash Drive															
<b>Regulatory</b>	FCC, CE-EMC Directive 89/336/EE, RoHS, WEEE															
<b>Warranty</b>	Two (2) years															
<b>Order Information</b>	500415: HDMI 4x4 Matrix Switch (includes four [4] IR Emitters)															

Typical Application

