Overview

The 3G-SDI / RS232 over IP Extender Kit with PoE allows SDI equipment to be connected up to 330ft (100m) @ 1080p through an IP network. Point-to-Multipoint, and Multipoint-to-Multipoint is possible by connecting several Transmitters and Receivers to the same network. Supports 100's of Transmitters and Receivers, depending on network bandwidth.

The Transmitters (500756-TX) and Receivers (500756-RX) also support PoE (PD) if used with a PoE (PSE) LAN Switch. In a Point-To-Point network (where no LAN switch is used) distances of up to 390ft (120m) can be achieved over single Cat5e/6. The kit comes with one (1) Transmitter and one (1) Receiver. The IR Emitter and IR Sensor, if required, may be purchased separately for remote control applications.

For the Point-to-Multipoint and Multipoint-to-Multipoint configurations, the Ethernet switch must have Gigabit ports, DHCP Server capability, and support the IGMP communications protocol. MuxLab recommends using the Cisco SG300 Series Managed Switches.

The MuxLab ProDigital Network Controller (500811) is available to simplify the configuration and utilization of the 500756 over an IP network.

Transmitter (500756-TX)   Receiver (500756-RX)

Key Features:

- Supports up to 1080p resolutions
- Motion JPEG compression with very low latency
- Supports 100's of Transmitters and Receivers, depending on network bandwidth
- LAN Switch based configurations support point-to-point, point-to-multipoint and multipoint-to-multipoint
- Extend transmission up to 330ft (100m) over an IP Network (when a LAN Switch is used)
- Extend transmission up to 390ft (120m) in a point-to-point configuration (when a LAN switch is not used)
- Supports RS232 and one way IR transmission for remote control of end devices
- PoE powered
- Compatible with the 500811 Pro Digital Network Controller for software management
- Compatible with 500752, 500753 and 500754 products.

Specification Chart

Environment	3G-SDI
Devices	Camera, monitor and other broadcast equipment supporting 3G-SDI
Transmission	Transparent to the user
Video Bandwidth	2.94Gbps
Signals	3G-SDI protocol
Connectors	One (1) 3G-SDI (BNC) One (1) RJ45S for Cat5e/6 unshielded or shielded twisted pair One (1) 3.5mm jack for IR emitter/sensor One (1) DB9 Serial Port Connector Four (4) DIP Switches for device ID addressing *Note: Cables not included*
Maximum Distance *Based on a maximum length of 6.6ft (2m) of HDMI cable per end*	Cat5e/6: 330ft (100m) with LAN switch Cat5e/6: 400ft (120m) without LAN switch (point to point only) *Note: When installed in an electrically noisy environment, an STP cable must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted pair cable used.*
Latency	One (1) Frame
Compression	Motion JPEG
Network Bandwidth	60Mbps
RJ45 Pin Configuration *Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring*	RJ45 Link Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T)
IR Frequency	38KHz to 56KHz

Network Requirement	100BaseT for Point to Point; 1000BaseT for other configurations
Cable	One (1) Cat 5e/6 or better twisted pair cable required
Power Supply	This device supports PoE (PD), an external power supply is not included. It is intended to be powered via a PoE (PSE) Ethernet Switch. If required, an optional power supply (500993) may be purchased separately.
PoE	IEEE 802.3af
Power Consumption	Transmitter: 2.9Watt; Receiver: 1.8Watt
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Enclosure	Metal black
Dimensions	4.4" x 3.0" x 1.0" (11.2cm x 7.6cm x 2.5cm)
Weight	1.1lbs (0.5kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	3 years
Order Information	500756 3G-SDI / RS232 Over IP Extender Kit with PoE (UPC: 627699007563) 500756 TX - 3G-SDI / RS232 Over IP Extender TX with PoE (UPC: 627699907566) 500756 RX - 3G-SDI / RS232 Over IP Extender RX with PoE (UPC: 627699807569)
Accessories (These items are sold separately)	500905 3-Port Rackmount Transceiver Chassis 500920 16-Port Rackmount Transceiver Chassis 500917 Wall Mount Transceiver Bracket Kit 500998 IR Emitter, and 500994 IR Sensor 500993 Univ. Locking Power Supply 5VDC/2.6A US/UK/EU Blade

Typical Application

Production Console

SDI Camera

500756 - TX

SDI Cable

500756 - RX

SDI Cable

Cat5/6

Cat5/6

SDI Camera

500756 - TX

SDI Cable

Cat5/6

Enterprise WAN
(or)
LAN Switch

Cat5/6

500756 - RX

SDI Cable

SDI Monitor

Cat5/6

SDI Camera

500756 - TX

SDI Cable

Cat5/6

Cat5/6

500756 - RX

SDI Cable

SDI Monitor

500811
Controller

RS232

PC

(3G-SDI over IP: Multipoint to Multipoint example)

Transmitter (500756-TX)

Receiver (500756-RX)