Specifications

Environment	SDI single coaxial link: 12G, 6G, 3G, HD & SD.
Devices	Monitors or any equipment supporting 12G, 6G, 3G, HD & SD single coaxial link.
Standard supported	12G-SDI : SMPTE ST2082-2; 6G-SDI : SMPTE ST2082-1; 3G-SDI: SMPTE 424M; HD-SDI: SMPTE 292M; SD-SDI : SMPTE 259M
Bit rates	11.88Gb/s, 5.94Gb/s, 2.97Gb/s, 1.485Gb/s & 0.27Gb/s (automatic selection).
Indicators	Power. Signal (signal present).
Connectors *On each unit*	One BNC 75ohm female. One duplex LC single-mode fiber connector. One locking power connector, 2mm.
Typical Distance **On coax:** **On fiber:**	Using low loss coax Belden 1694A cable (RG6): 130ft (40m) at 11.88Gb/s 260ft (80m) at 5.94Gb/s, 700ft (210m) at 2.97Gb/s, 1000ft (300m) at 1.485Gb/s Using single-mode fiber 9/125µm for 1310nm: 33,000ft (10km)
Optic link required	Simplex or Duplex SMF fiber 9/125µm with LC connectors (only one fiber is used).
Eye safety for laser	Class 1, compliant with IEC60825-1
Voltage required	5 VDC
Power Supply Included	Two 100-240V/5 VDC 2A power supplies with interchangeable blades for NA, Europe and UK.
Power Consumption	3 Watts (max) per unit
Temperature	Operating: 0° to 40°C Storage: -20° to 60°C Humidity: 20% to 90% non-condensing
Enclosure Type	Black, metal
Dimensions	Enclosure: 3.2" x 1.9" x 1.1" (8.2cm x 4.8cm x 2.8cm), excluding connectors Shipping box: 10.6" x 6.9" x 3.0" (27.0cm x 17.5cm x 7.6cm)
Weight	Shipping box: 1.6lbs (0.7kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	2 years
Order Information	500713 126G-SDI Fiber Extender Kit

12G-SDI Fiber Extender Kit

500713

Quick Installation Guide

Overview

The 12G-SDI Fiber Extender Kit allows 12G-SDI to be transmitted up to 33,000ft (10km) via a one singlemode fiber cable in a point-to-point configuration at all specified bit rates.

The 12G-SDI Fiber Extender Kit supports transmission of up to 12 Gbps of digital video within television broadcasting facilities and between professional video equipment.

Applications

Video production, broadcasting, camcorder, studio-to-studio, post-production, live events, medical imaging displays, mobile video, 12G/6G/3G/HD/SD-SDI routing, 12G/6G/3G/HD/SD-SDI CCTV, medical imaging.

Installation

1. Identify the connectors on the Transmitter (LC Fiber out) and Receiver (LC Fiber in) as indicated on the product labels.

2. Verify that the distance between the Transmitter and Receiver is within MuxLab specifications (see Specifications table).

3. To install the Transmitter:

   3a. Connect the Transmitter to the SDI video source with a BNC 75-ohm 12G compliant coaxial cable, while respecting the specified distance in the Specifications table.

   3b. Remove the protective plug on the fiber connector. The input or output side is indicated on the optic module (see arrows in picture below).
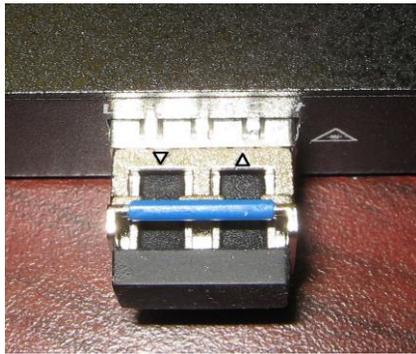
   3c. Connect one single-mode optical fiber cable to the left side of the LC connector on the Transmitter. Retain the plug and replace it on the LC connector if the fiber cable is not present. Note that the right side of the LC connector is not used on the Transmitter. If only one optical cable is used, plug the unused LC connector.

   3d. DO NOT LOOK into the fiber cable or unit LC connector when power is on.

   3e. Plug the power supply and screw it to the transmitter unit.

4. To install the Receiver:

   4a. Connect the Receiver to the SDI display equipment with a BNC 75 ohm 12G compliant coaxial cable, while respecting the specified distance in the Specifications table.

   4b. Remove the protective plug on the fiber connector. Connect the singlemode optical fiber cable coming from the Transmitter to the right side of the LC connector on the Receiver. Retain the plug and replace it on the LC connector if the fiber cable is not present. Note that the left side of the LC connector is not used on the Receiver. If only one optical cable is used, plug the unused LC connector.

   4c. Plug the power supply and screw it to the receiver unit.

5. Power the equipment and verify the image quality. Verify if both the Transmitter and Receiver power LEDs are on. With a valid video source check that both the Transmitter and Receiver signal LEDs are on.
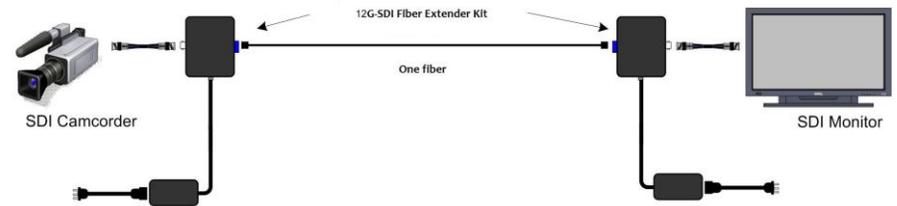
Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions to issues encountered during the installation of the 12G-SDI Fiber Extender Kit:

LEDS	Status	Possible cause	Action
Power (on either unit)	OFF	No AC power or defective power supply.	Verify that AC is present. Else replace the defective power supply.
Signal (on TX unit)	OFF	No source signal or incompatible signal. Coax damaged or wrong type.	Check source signal. Check coax cable for damage, for type and distance specs (see Specifications table). Note that inexpensive 3G or 6G cable will not work in 12G.
Signal (on RX unit)	OFF	No source signal or incompatible signal. Fiber damaged or wrong type.	Check source signal. Check singlemode fiber cable for damage, for type, and distance specs (see Specifications table).
Power & Signal (on both units)	ON but no signal on monitor	Monitor not working or not compatible. Coax damaged or wrong type.	Try with another monitor. Check coax cable for damage, for type and distance specs (see Specifications table). Note that inexpensive 3G or 6G cable will not work in 12G.

If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).