PESA EQUIPMENT WARRANTY

SABERTOOTH MEDIA CONVERTERS

PESA Switching Systems, Inc., (PESA) warrants this equipment against defective workmanship or materials for a period of two (2) years from date of shipment. The sole warranty responsibility of PESA, shall be to replace or repair product proved to be defective. During the warranty period, defective parts will be replaced at no charge. Labor to repair or replace defective parts covered under the warranty will be performed at no charge at PESA. This warranty covers only products manufactured by PESA, and the components used in their manufacture. The warranty on assembled products sold by PESA., but manufactured by others shall be that of the original manufacturer. This warranty does not include shipping damage or damage caused by abuse, neglect, tampering by unauthorized personnel, damage inadvertently caused by the user, preventative maintenance, or any equipment or part thereof whose serial number has been removed or defaced. Neither the seller nor the manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the inability to use the product. Before using, user shall determine the suitability of the product for his or her intended use, and user assumes all risk and liability whatsoever in connection therewith.

This warranty is effective only at the PESA factory in Huntsville, Alabama, USA. If possible, retain the original packing material for use in the unlikely event that your equipment must be returned to the PESA factory. When shipping your equipment, the shipping charges must be prepaid. The repaired unit will be returned to you, freight prepaid. This warranty is exclusive and in lieu of all other warranties, whether expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose.

All claims should be directed to:
PESA Customer Service
103 Quality Circle, Suite 210
Huntsville, Alabama 35806
Tel: (256) 726-9222
Fax: (256) 726-9268
Email: service@pesa.com

Return Material Authorization (RMA) Procedures
Prior to returning defective material, you must initiate a warranty exchange or repair request by calling or submitting a fax to PESA's Customer Service Department requesting a Return Material Authorization number (RMA).

SABERTOOTH
PRODUCT INFORMATION GUIDE

FIBER INLINE MEDIA EXTENDERS FOR BNC CONNECTORS

INTRODUCTION

PESA's Sabertooth miniature fiber optic video transport modules offer a complete solution for extending SD/HD/3G-SDI video from copper coaxial connectors over long distances using a single fiber optic connection. The Sabertooth family consists of transmitter (Tx) modules that convert coaxial signals to fiber optic transport; and receiver (Rx) modules that convert fiber optic input signals to coaxial output. Each device is powered through a pigtail connector that connects to an external power supply module.

Sabertooth transports a single channel of SMPTE 259M, 292M, or 424M serial digital video over long distances through singlemode or multimode fiber, and requires no user adjustments. Tx and Rx modules may be used paired or in stand-alone applications. Connect devices and add power to achieve perfect signal quality up to 10Km at 3Gbps. Figure 1 illustrates a typical Sabertooth Tx and Rx module with power supply.

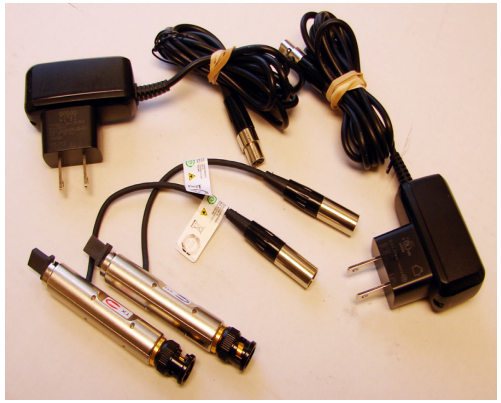


Figure 1. Typical Sabertooth Modules

INSTALLATION

Sabertooth modules attach directly to BNC connectors on the video source and destination equipment. Fiber connections are made through a single LC type connector built into the Sabertooth module. All modules feature an ultra-thin die-cast body that allows side-by-side connections to the back of video equipment such as routers and other types of distribution equipment with unit pitch as tight as 0.625 inches.

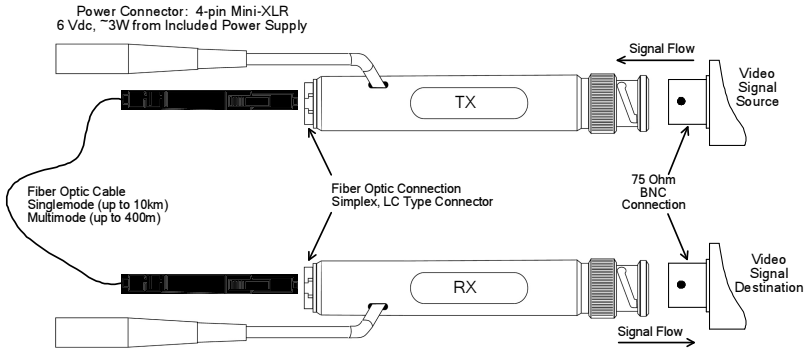


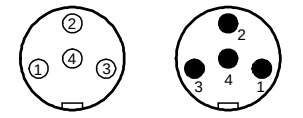
Figure 2. Typical Sabertooth Installation

Refer to Figure 2 and install Sabertooth modules as follows:

1. Install BNC end of Tx module to video output signal source connector.
2. Install a simplex fiber optic cable with LC connector to the mating optical connector on the end of the Sabertooth module.
3. Install BNC end of Rx module to video destination signal connector.
4. Install the other end of the fiber cable from Tx module, or fiber cable from external SDI video source, to the optical connector on the Sabertooth Rx module.
5. Attach mating end of cable from the power supply included with module to mini-XLR connector on each Sabertooth device in the system.
6. Provide a source of AC power to each power supply device.

POWER CONNECTOR

Power connector pin-outs for mini-XLR connector:



Pin-Out Chart

Pin	Sabertooth Conn.	Power Supply Conn.
1	Gnd / Black Wire	Negative
2	Factory Use – Do Not Connect	Not Used
3	Factory Use – Do Not Connect	Not Used
4	Vcc / Red Wire	+ 4.5 to 7 VDC

POWER SUPPLY SPECIFICATIONS

Power Supply Input Voltage: 100-240 VAC, 50-60 Hz
Power Supply Output Voltage: 6 VDC, 3A Nominal
4-Pin Mini-XLR power connection
Body Size: 0.55” X 3.14” (14mm X 79.8mm)

OPTICAL POWER SPECIFICATIONS

Transmitter SABTH-30TX				Receiver SABTH-30RX	
	Optical Transmit Power (dBm)			Receiver Optical Input Power (dBm)	Link Distance @ 2.97 Gbps
1310nm FP Laser	Min	Typ	Max	Min/Max	10 km – 9/125µm SM Cable 400m – 50/125µm MM Cable 200m – 62.5/125µm MM Cable
	-6	-4.5	-3	-20 / +0	

MODULE SPECIFICATIONS

Transmission of multi-rate SD/HD/3G (143Mbps to 2.97Gbps)
Real-time, uncompressed video transmission
Supports singlemode or multimode fiber
Formats supported: SMPTE 259M, 292M, 424M
Error free pathological pattern performance
Sized for direct attachment to video equipment such as routers
Supports embedded audio and metadata
Rugged die-cast housing allows 0.625 side-by-side mounting
3Gbps up to 10Km using singlemode 9/125µm fiber
TX Power (min. -6 dBm, max. -3 dBm)
RX Power (min. -20 dBm, max. +0 dBm)
0 to 70C operating case temperature
4.5 to 7 VDC, ~ 3W

NOTE: Operating distances are approximate.
Cable loss and other interconnects can affect the total light loss between Tx and Rx paths.
Multimode cable distances are limited based on interconnects and type of cable used.

PART NUMBERS

SABTH-30RX-PS; 3G-SDI Transmitter E-O, BNC to LC
SABTH-30RX-PS; 3G-SDI, Receiver, O-E, LC to BNC

Laser devices used in this product are classified as Class 1 products which do not present a hazard to skin or eyes for any wavelength or exposure time under normal operating conditions. However, PESA cautions you not to look directly into the fiber optic module or into the end of a fiber optic cable.