

RB-3GSDI-01X

SDI Fiber Optic Converter/Extender

1-Channel 3G SDI Video with Loop-back output and RS485 for PTZ controls

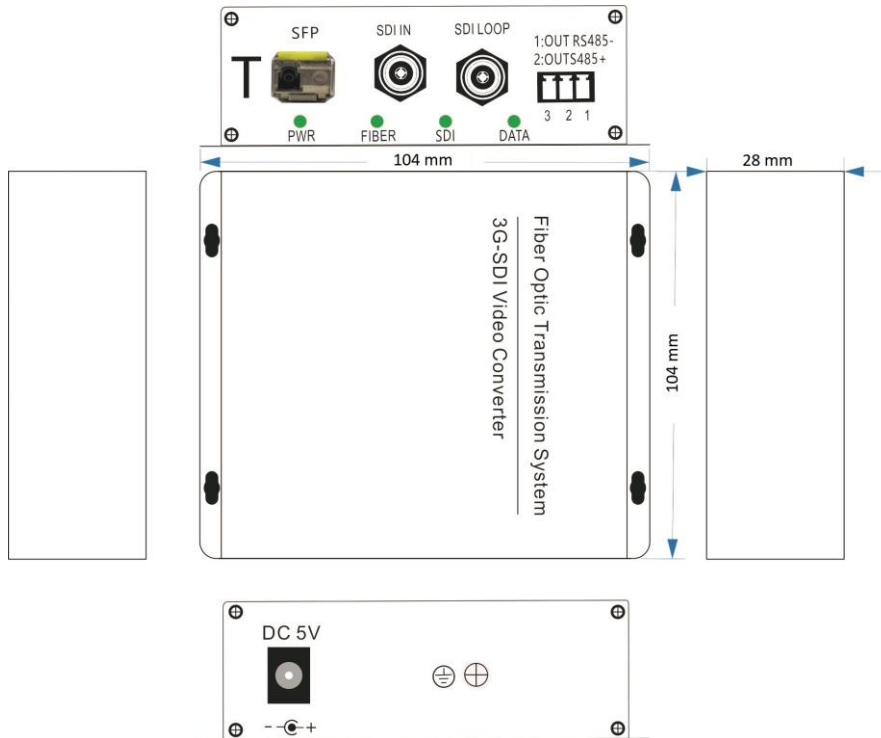
The Robofiber RB-3GSDI series are digital video fiber media converters using standardized all-digital optical fiber transmission technology supporting SMPTE standards. HD SDI and 3G SDI video signals can be transmitted at high quality resolution for long reaches and without any distortion through only 1 strand of fiber optic cable. Status LEDs indicate operating mode of the converters, acknowledging proper fiber, video and serial connectivity. The embedded RS485/RS232 interface allows remote control via fiber for automation applications of monitoring and control.



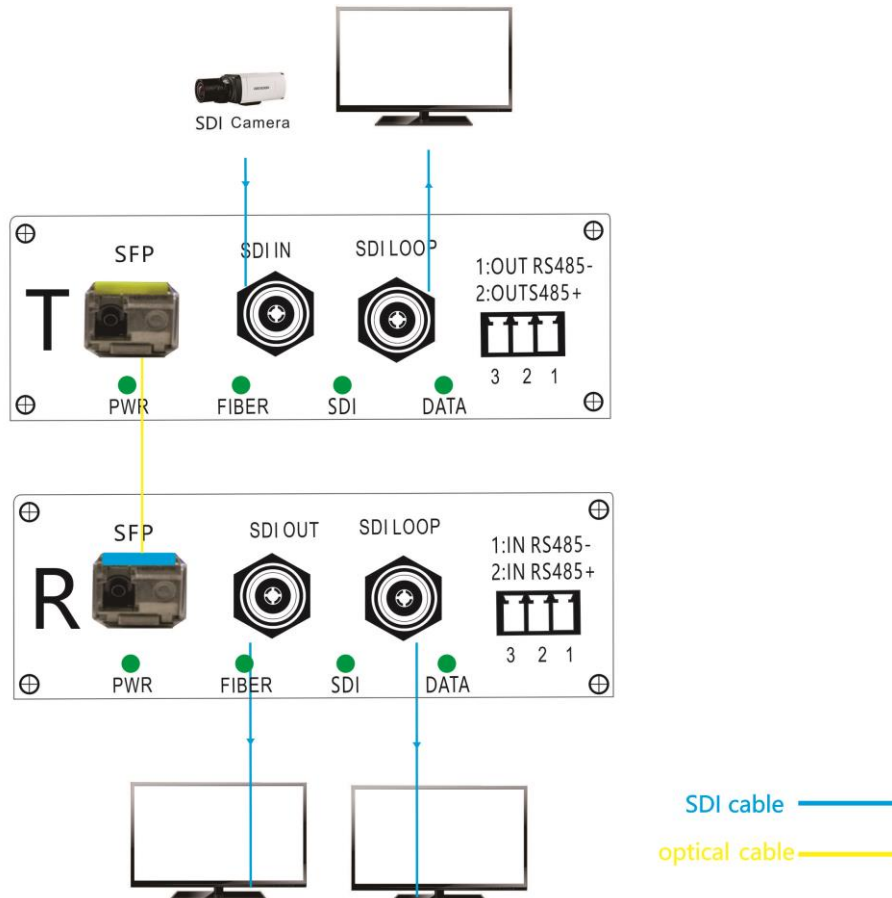
Features

- Extends uncompressed multi-rate 3G-SDI, HD-SDI or SD-SDI video signals over fiber
- Supports SMPTE 424M, SMPTE 292M, SMPTE 259M or DVB-ASI compliant signal
- Supports clock recovery and clock re-shaping
- Industrial temperature grade hardened units (-20 to +75 Celsius)
- Supports embedded digital audio stream
- Supports Single-Mode Fiber distances up to 80 km and Multi-Mode Fiber up to 2Km
- High quality and resolution real-time video transmission
- LED status providing rapid reading of operational status
- No EMI or RFI and no ground loops
- Supports chassis hot swap, stand alone or card operating mode

Dimensions



Application Diagram



Technical Specifications

Optical Port	Wavelength	1550/1310nm
	Fiber Type	SMF 9/125um, single fiber(default) MMF 62.5/125 or 50/125um SS(opt)
	Distance	20km (up to 80km optional)
	Fiber Connector	LC (default); FC/SC/ST (optional)
SDI Video	Video Interface Ports	1
	Physical Interface	BNC female
	Max Resolution	1920 x 1080 @ 60Hz
	Video Input and Output Impedance	75Ω (unbalanced)
	Video Input/Output Voltage	Typical:1Vpp, Min 0.5Vpp, Max 1.5Vpp
	Video Bits Rate	Max 2.97Gb/s
	Video SDI standard	270Mbps (SD-SDI), 1.485Gbps/M(HD-SDI), SMPTE425M 3Gb/s mapping(3G-SDI), SMPTE424M 3Gb/s serial interface(3G-SDI)
Data	Physical Interface	The industry standard connecting terminal
	Interface Signal	RS485/RS422/RS232/Manchester
	Baud Rate	0-400Kbps
	BER	$< 10^{-9}$
	Operation Mode	Full duplex / half duplex
Electrical & Mechanical	Input Power Requirements	DC 5V
	Power Adapter	AC 100V~240V
	Dimensions	104 x 104 x 28 mm
	Packing	250 x 140 x 75 mm
	Weight	0.75kg
Environmental	Operating temperature	-20°C ~ +75°C
	Storage temperature	-40°C ~ +85°C
	Working humidity	0% ~ 95% (non-condensing)
	MTBF	>100,000 hours

Ordering Information

Model Number		Fiber Mode	Transmission Distance	Fiber Connector
Transmitter	Receiver			
RB-3GSDI-01S-T	RB-3GSDI-01S-R	Singlemode	20km	LC
RB-3GSDI-01M-T	RB-3GSDI-01M-R	Multimode	500m	LC

Note:

- Two models covering SMF 20Km and MMF 500m reaches.
- Optical transmission distance will vary. Total optical loss is affected by number of splices, connectors and patch panels which cause additional loss and thus reduced reach. Please use optical tools (Optical Power Meter and Optical Laser Source) to determine the total IL of a fiber circuit
- Maximum transmission distance is also limited by fiber bandwidth
- Power adapter is manufactured by third party and is supplied with fitted screw-terminal output cables. Power adapter is included for standalone versions of the RB-3GSDI fiber extenders. Default AC plug is US format (European, UK or Australia power plug are available on demand)