

RB-12GSDI-MINI

Single 12G SDI Channel Fiber Extender Set

Quick User Guide



Overview

The RB-12GSDI-MINI set can transmit one 12G SDI video channel forward over a single strand of fiber, up to 10Km SMF (or 500m for MMF), with a no delay and no compression high-quality signal extension. Set is using ST fiber optic connectors and implements a serial clock recovery, signal equalization and line drive technologies and has an automatic SDI detection between 12G-SDI/6G-SDI/3G-SDI/HD-SDI/SDI/ASI video signals. Units are compatible with SMPTEST2082-1 (12GUHD-SDI), ST2081-1 (6GUHD-SDI), SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE305M and SMPTE310M standards.

Design of RB-12GSDI-MINI is minimalistic, with reduced footprint and twist and lock BNC and ST connectors for secure connectivity and metal casing for extended temperature operation and heavy EMI environment resistance.

Applications

SMPTE compatible with serial digital interface
UHDTV/4K/8K/HDTV/SDTV video signal transport
IP media gateway applications
Digital video processing and editing

Ordering Information

P/N	Description	Size	Power Supply	Fiber Connector
RB-12GSDI-MINI	1 channel forward 12G-SDI video fiber extender set	80*17*17mm	DC 5V AC adapters	ST/UPC simplex

Features

- Supports ST-2082-1(12G), ST-2081-1(6G), ST-424(3G), ST-292(HD) and ST-259(SD) SMPTE standards, compatible with DVB-ASI and AES10 (MADI)
- Both transmitter and receiver have clock recovery function
- Clock retiming is locked to 11.88Gbps, 5.94Gbps, 2.97Gbps, 1.485Gbps or 1.001Gbps frequency division sub rate and SMPTE rate of 270Mbps
- Signal input has an automatic cable equalization (EQ) function
- Single/multi-mode fiber compatibility, multi-mode transmission distance up to 500m, single mode transmission distance up to 10Km
- Status light display
- Plug and play, no settings required

Technical Specifications

Fiber Interface	
Wavelength	1310nm
Rate (max)	12Gbps
Transmitter power	-3~0dB
Receiver sensitivity	-12dB
Fiber connector	ST/UPC
Max. reach	Multi-mode fiber, 500m Single-mode fiber, 10Km
Video Interface	
Protocol standard	SMPTE ST-2082 and downwards compatible
SMPTE rate	270Mbit/s, 1.48Gbit/s, 2.97Gbit/s, 5.94Gbit/s, 11.88 Gbit/s
	SMPTE 259M SD-SDI 480i, 576i
	SMPTE 344M ED-SDI 480P, 576P
	SMPTE 292M HD-SDI 720P, 1080i

Support standard (digital video format)	SMPTE 424M	3G-SDI	1080P60Hz
	SMPTE ST-2081	6G-SDI	2160P30Hz
	SMPTE ST-2082	12G-SDI	2160P60Hz
EQ mode cable transmission distance	75m at 11.88Gbps		
	120m at 5.94 Gbps		
	200m at 2.97 Gbps		
	300m at 1.485 Gbps		
	600m at 270Mbps		
Signal amplitude	800mV±10%		
Impedance	75Ω		
Connector	BNC male (IEC169-8 standard)		
Mechanical			
Casing	Aluminum alloy		
Installation	Direct plug-in (in-line)		
Product size	80*17*17mm		
Product net weight (pair)	0.09Kg		
Product weight (including the outer packaging)	0.2Kg		
Packing size	210*160*46mm		
Input voltage	100VAC~242VAC,50-60Hz		
Power supply	DC 5V		
Power dissipation	<1.5W		
Environment			
Operating temperature	-20℃ ~+75℃		
Storage temperature	-40℃ ~+85℃		
Relative humidity	From 5 to 95% (non-condensing)		
MTBF	>100,000 hours		

Package Contents

Item#	Name	Unit	Quantity
1	12G SDI Transmitter	Pcs	1
2	12G SDI Receiver	Pcs	1
3	DC 5V/1A AC adapter	Pcs	2