

12G-SDI Video Optical Extender

FSE-2X12G-TR

Features

- SD/HD/3G/6G/12G-SDI input data rates detected automatically
- 125M/270M/1.48G/3G/6G/12G data rates selected both automatically and manually
- Reach up to 80km w/ 3G-SDI SFP modules or 20km w/ 12G-SDI SFP modules
- Supported format SMPTE ST 2082-1/2081-1/424/292/259, DVB-ASI and MADI
- Co-axis cable equalizer embedded in the transmitter:

70m at 11.88Gb/s: < 0.2UI output jitter

90m at 5.94Gb/s: < 0.15UI output jitter

180m at 2.97Gb/s: < 0.1UI output jitter

240m at 1.485Gb/s: < 0.1UI output jitter

300m at 270Mb/s: < 0.1UI output jitter

- CDR embedded in the receiver
- SDI signal connecting status indicated by LED
- 5~12V DC power supply
- Friendly simple GUI
- Operating case temperature range: 0 to +70°C



Applications

- Live Broadcast
- 4K Screen
- 4K Camera
- Video Meeting
- Security Monitoring

Description

FiberStamp's 12G-SDI video optical extender makes possible transmission of two lanes of independent 12G-SDI signals in long-distance reach up to 80km at 3G-SDI data rate and 20km at 12G-SDI data rate. It supports a range of operating data rates from 125Mbps to 11.88Gbps. MADI, DVB-ASI, SD-SDI, HD-SDI, 3G-SDI and 6G-SDI formats are backwards compatible.

With FiberStamp 3G-SDI SFP or 12G-SDI SFP+ optical modules, the 12G-SDI video optical extender can extend two lanes of SDI signals.



Hardware Configuration

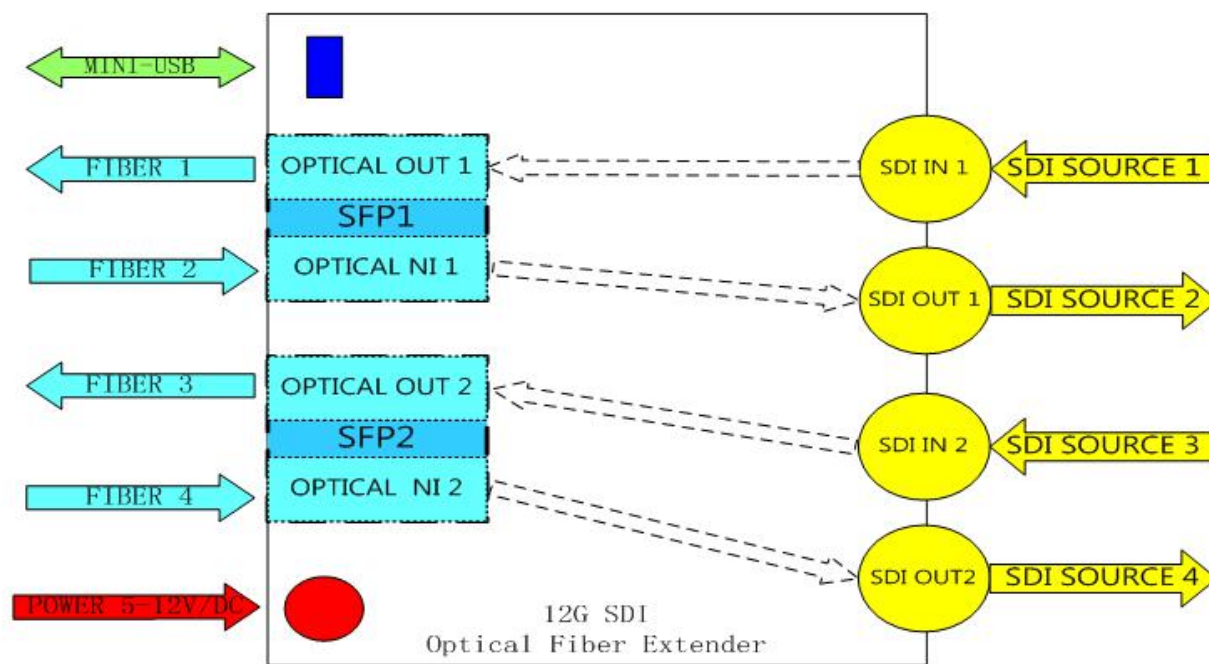


Figure 1. Block diagram

LED	Display	Description
POWER	Off	Power off
	Green	Power on
LOCK1	Off	SDI IN1 signal connecting to NG
	Green	SDI IN1 signal connecting OK
LOCK2	Off	SDI OUT1 signal connecting NG
	Green	SDI OUT1 signal connecting OK
LOCK3	Off	SDI IN2 signal connecting to NG
	Green	SDI IN2 signal connecting OK
LOCK4	Off	SDI OUT2 signal connecting NG
	Green	SDI OUT2 signal connecting OK

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage Temperature	Ts	-50	+125	°C
Power Supply Voltage	Vcc	3	17	V

Technical Specifications

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Tc	-10		60	°C
Operating Humidity	-	5		85 non-condensing	%
Power Supply Voltage	Vcc	4.5	5	12	V
Power Supply current (without transceivers)	Icc(5V)		410	500	mA
Physical Dimensions		129.59(W)x11.6 (D) x23.9(H)			mm
Weight		248.32			g



Optical and Electrical Characteristics

Main Frame	
BNC	Standard BNC, 75 Ohm
Transmission rate	125 Mbps to 11.88 Gbps
Standard	SMPTE ST 2082-1, SMPTE ST 2081-1, SMPTE ST 424, SMPTE ST 292-1, SMPTE ST 259, DVB-ASI(270M),MADI(125M)
RL	>15dB @1.5GHz
	>10dB @3GHz
	>7 dB @6GHz
	>4 dB @12GHz
Wavelength	1310nm/1550nm
Jitter	< 2.0UI @10Hz
	< 0.3UI @100KHz
Output Swing	800mV (+/-10%)
Overshoot	<10%
Rise/fall time	<135ps @3G-SDI
	<80ps @6G UHD-SDI
	<45ps @12G UHD-SDI

Mechanical Dimension

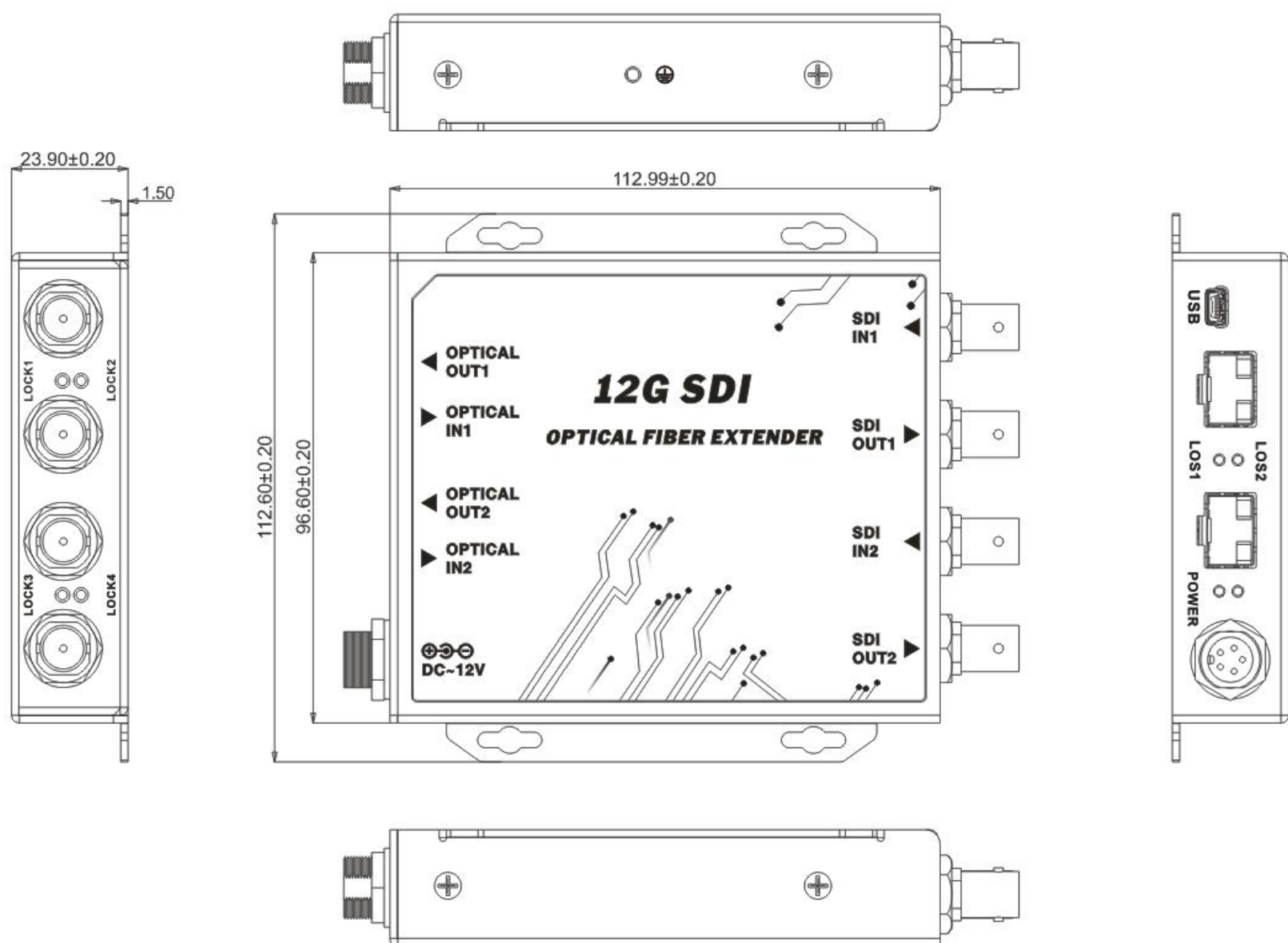


Figure 2. Mechanical Specifications



Ordering Information

Part Number	Product Description
FSE-2X12G-TR	12G-SDI Video Optical Extender, 2x 12Gbps, Dual SFP Ports

Important Notice

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