Fortinet Compatible FG-TRAN-SFP+SR Quick Spec:

Part Number:	FG-TRAN-SFP+SR FG-TRAN-SFP+SR-EXT FG-TRAN-SFP+SR-IND
Form Factor:	SFP+
TX Wavelength:	850nm
Reach:	300m
Cable Type:	MMF
Rate Category:	10GBase
Interface Type:	SR
DDM:	Yes
Connector Type:	Dual-LC
Temperature:	Commercial
Power Budget:	5.1dB
TX Power Min/Max:	-6.00 to -1.00
RX Power Min/Max:	-11.1 to -1.00

Fortinet Compatible FG-TRAN-SFP+SR Features

- Operating Data Rate up to 10.3Gbps
- Single 3. 3V Power Supply and TTL Logic Interface
- Hot Pluggable
- 850nm VCSEL Transmitter
- Reach:
  - OM1 (62.5/125micron) 33m
  - OM2 (50/125micron 400 MHz*km) 82m
  - OM3 (50/125micron 2000 MHz*km) 300m
  - OM4 (50/125micron 4700) 300m
- Operating Case Temperature
  - Standard: 0°C to +70 °C
  - Extended -5°C to +85 °C
  - Industrial -40°C to +85 °C
- Compliant with MSA
- Compliant with IEEE 802.3ae 10GBASE-SR
- Digital Diagnostic Monitor Interface
- Compliant with SFF-8472
- RoHS 6 Compliant

Fortinet Compatible FG-TRAN-SFP+SR Applications

- 10G Ethernet at 10.3125Gbps

Fortinet Compatible FG-TRAN-SFP+SR Electrical Characteristics (Condition: Ta=TOP)

Parameter	Symbol	Min.	Typ	Max.	Unit	Notes
CML Inputs(Differential)	Vin	150		1200	mV p-p	AC coupled inputs
Supply Current	ICC			300	mA	
Input Impedance (Differential)	Zin	85	100	115	ohm	Rin > 100 kohm @ DC
Tx_Disable Input Voltage – Low	VIL	0		0.8	V	
Tx_Disable Input Voltage – High	VIH	2.0		3.45	V	
Tx_Fault Output Voltage – Low	VOL	0		0.5	V	
Tx_Fault Output Voltage – High	VOH	2.0		Vcc+0.3	V	
CML Outputs (Differential)	Vout	350		700	mV pp	AC coupled outputs
Output Impedance (Differential)	Zout	85	100	115	ohms	
Rx_LOS Output Voltage- Low	VOL	0		0.5	V	
Rx_LOS Output Voltage- High	VOH	2.5			V	

Fortinet Compatible FG-TRAN-SFP+SR Optical Characteristics (Condition: Ta=TOP)

TX						
Parameter		**Symbol**	**Min**	**Typ**	**Max**	**Unit**
Data Rate			-	10.3	-	Gb/s
50/125mm MMF				300		m
Centre wavelength		λc	840	850	860	nm
Output Spectral Width(RMS)		△λ	-	-	0.45	nm
Average Output Power		P_{out}	-6	-	-1	dBm
Extinction Ratio		ER	3.0	5.0	-	dB
Output Optical Eye			IEEE 802.3-2005 Compliant			
Transmitter Dispersion Penalty		TDP			3.9	dB
Input Differential Impedance		Zin	90	100	110	Ω
TX Disable	Disable		2.0		Vcc+0.3	V
	Enable		0		0.8	
TX Fault	Fault		2.0		Vcc+0.3	V
	Normal		0		0.8	
TX Disable Assert Time		t_off			10	us

RX						
Parameter		**Symbol**	**Min**	**Typ**	**Max**	**Unit**
Center Wavelength		λc	840	850	860	nm
Receive Sensitivity		P_{in}	-	-	-11.1	dBm
Maximum Input Power		P_{MAX}	-1			dBm
Signal Detect Threshold-Assertion:		SD_{HIGH}	-	-	-12	dBm
Signal Detect Threshold-Deassertion:		SD_{LOW}	-25	-	-	dBm
Output Differential Impedance		Pin	90	100	110	Ω
Receiver Overload		Pmax	0.5			dBm
Optical Return Loss		ORL			-12	dB
LOS	High	2.0			Vcc+0.3	V
	Low	0			0.8	

Absolute Maximum Ratings (T_C=25℃)

Parameter	**Symbol**	**Min**	**Max**	**Unit**
Storage Temperature	T_{ST}	-40	+85	℃
Operating Temperature (Standard)	T_{IP}	0	+70	℃
Operating Temperature (Industrial)		-40	+85	
Input Voltage	T_{CC}	0	5	V

Recommend Operation Environment

Parameter	**Symbol**	**Min**	**Typ**	**Max**	**Unit**
Supply Voltage	V_{CC}	+3.15	3.3	+3.45	V
Operating Temperature (Standard)	T_{OP}	0	-	+70	℃
Operating Temperature (Industrial)		-40	-	+85	

Licensing

The following U.S. patents are licensed by Finisar to FluxLight, Inc.:
U.S. Patent Nos: 7,184,668, 7,079,775, 6,957,021, 7,058,310, 6,952,531, 7,162,160, 7,050,720