

SV-SFP-ESXD

1000Base-SX 1300nm, Multi mode, 2km, with or without DDM



Features

- Data-rate of 1.25Gbps operation
- 1300nm FP LD laser and PIN photodetector
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring: Internal Calibration or External Calibration
- 2km transmission with 50/125µm MMF
- 1km transmission with 62.5/125µm MMF
- Compatible with RoHS
- +3.3V single power supply
- Operating case temperature:
Standard : 0 to +70°C
Industrial : -40 to +85°C

Applications

- Gigabit Ethernet
- Fiber Channel
- Switch to Switch interface
- Switched backplane applications
- Router/Server interface
- Other optical transmission

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP-ESXD	Starview SFP module with Digital Diagnostic Monitoring (DDM), 1000Base-SX 1300nm MM (LC), distance up to 2km for 50/125um and 1km for 62.5/125um	-5 to 0	-20 to 0	15	2	YES
SV-SFP-ESXDH	Starview SFP module with Digital Diagnostic Monitoring (DDM), 1000Base-SX 1300nm MM (LC), distance up to 2km for 50/125um and 1km for 62.5/125um. Industrial temperature range	-5 to 0	-20 to 0	15	2	YES

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Supply Voltage	V _{CC}	-0.5	4.5	V
Storage Temperature	T _s	-40	+85	°C
Operating Humidity	-	5	85	%

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
Case Operating Temperature	Standard	0		+70	°C
	Industrial	T _{case}	-20	+85	
			-40	+85	
Power Supply Voltage	V _{CC}	3.13	3.3	3.47	V
Power Supply Current	I _{CC}			300	mA
Data Rate			1.25		Gbps

Specification of Transmitter

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Centre Wavelength	λ_c		1300		nm	
Spectral Width (RMS)	$\Delta\lambda$			0.85	nm	
Average Output Power	P _{out}	-5		0	dBm	1
Extinction Ratio	ER	9			dB	
Optical Rise/Fall Time (20%~80%)	t _r /t _f			0.26	ns	
Data Input Swing Differential	V _{IN}	400		1800	mV	2
Input Differential Impedance	Z _{IN}	90	100	110	Ω	
TX Disable	Disable	2.0		V _{CC}	V	
	Enable	0		0.8	V	
TX Fault	Fault	2.0		V _{CC}	V	
	Normal	0		0.8	V	

Note 1: The optical power is launched into MMF.

Note 2: PECL input, internally AC-coupled and terminated.

Specification of Receiver

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Centre Wavelength	λ_c		1300		nm	
Receiver Sensitivity				-20	dBm	1
Receiver Overload		0			dBm	1
LOS De-Assert	LOS_D			-21	dBm	
LOS Assert	LOS_A	-35			dBm	
LOS Hysteresis		1		4	dB	
Data Output Swing Differential	V_{out}	400		1800	mV	2
LOS	High	2.0		V_{cc}	V	
	Low			0.8	V	

Note 1: Measured with a PRBS 2⁷-1 test pattern @1250Mbps, BER $\leq 1 \times 10^{-12}$

Note 2: Internally AC-coupled.