SV-SFP-2GLXD4x

2.5Gbps,1310nm TX/1550nm RX(1550nm TX/1310nm RX),SM,40km.

Features

- Up to 2.5Gb/s data links with DDM
- DFB laser transmitter
- PIN photo-detector
- Up to 40KM on 9/125μm SMF
- Hot-pluggable SFP footprint
- BIDI LC/UPC type pluggable optical interface
- Low power dissipation
- Metal enclosure, for lower EMI
- RoHS compliant and lead-free
- Single +3.3V power supply
- Compliant with SFF-8472
- Case operating temperature
  Commercial: 0°C to +70°C
  Industrial: -40°C to +85°C

Applications

- Switch to Switch Interface
- Gigabit Ethernet
- Switched Backplane Applications
- Router/Server Interface
- Other Optical Links

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP-2GLXD41	Starview Single Fiber Bi-Directional SFP module, Multi-rate 155Mbps to 2.667Gbps Fiber Optic 1550nm SM (LC) with Digital Diagnostic Monitoring (DDM), 1310nm TX/ 1550nm RX single fiber SM (LC), distance up to 40km	-2 to 3	-19 to 0	17	40	YES
SV-SFP-2GLXD42	Starview Single Fiber Bi-Directional SFP module, Multi-rate 155Mbps to 2.667Gbps Fiber Optic 1550nm SM (LC) with Digital Diagnostic Monitoring (DDM), 1550nm TX/ 1310nm RX single fiber SM (LC), distance up to 40km	-2 to 3	-19 to 0	17	40	YES

SV-SFP-2GLXD41H	Starview Single Fiber Bi-Directional SFP module, Multi-rate 155Mbps to 2.667Gbps Fiber Optic 1550nm SM (LC) with Digital Diagnostic Monitoring (DDM), 1310nm TX/ 1550nm RX single fiber SM (LC), Industrial temperature range,distance up to 40km	-2 to 3	-19 to 0	17	40	YES
SV-SFP-2GLXD42H	Starview Single Fiber Bi-Directional SFP module, Multi-rate 155Mbps to 2.667Gbps Fiber Optic 1550nm SM (LC) with Digital Diagnostic Monitoring (DDM), 1550nm TX/ 1310nm RX single fiber SM (LC), Industrial temperature range,distance up to 40km	-2 to 3	-19 to 0	17	40	YES

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Storage Temperature	Ts	-40		85	ºC
Storage Ambient Humidity	HA	5		95	%
Power Supply Voltage	VCC	-0.5		4	V
Signal Input Voltage		-0.3		Vcc+0.3	V
Receiver Damage Threshold		+5			dBm

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Case Operating Temperature	Tcase	0		70	ºC	
		-10		80		
		-40		85		
Ambient Humidity	HA	5		70	%	Non-condensing
Power Supply Voltage	VCC	3.13	3.3	3.47	V	
Power Supply Current	ICC			300	mA	
Power Supply Noise Rejection				100	mVp-p	100Hz to 1MHz
Data Rate			2.5/2.5		Gbps	TX Rate/RX Rate
Transmission Distance				40	KM	
Coupled Fiber			Single mode fiber			9/125um SMF

Specification of Transmitter

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Average Output Power	POUT	-2		3	dBm	Note (1)
Extinction Ratio	ER	8.2			dB	
Center Wavelength	λC	1290	1310	1330	nm	SV-SFP-2GLXD41
		1530	1550	1570	nm	SV-SFP-2GLXD42
Side Mode Suppression Ratio	SMSR	30			dB	DFB Laser
Spectrum Bandwidth(-20dB)	σ			1	nm	
Transmitter OFF Output Power	POff			-45	dBm	
Differential Line Input Impedance	RIN	90	100	110	Ohm	
Output Eye Mask	Compliant with G.957 (class 1 laser safety)					

Note 1: Measure at 2^23-1 NRZ PRBS pattern

Specification of Receiver

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Input Optical Wavelength	λIN	1530	1550	1570	nm	SV-SFP-2GLXD41
		1290	1310	1330		SV-SFP-2GLXD42
Receiver Sensitivity	PIN			-19	dBm	Note (1)
Input Saturation Power (Overload)	PSAT	0			dBm	
Los Of Signal Assert	PA	-35			dBm	
Los Of Signal De-assert	PD			-20	dBm	Note (2)
LOS Hysteresis	PA-PD	0.5	2	6	dB	

Note (1): Measured with Light source 1550nm (1310nm), ER=9dB; BER =<10^-12 @PRBS=2^23-1 NRZ.

Note (2): When LOS de-asserted, the RX data+/- output is signal output.

Electrical Interface Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter						
Total Supply Current	ICC			A	mA	Note 1
Transmitter Disable Input-High	VDISH	2		Vcc+0.3	V	
Transmitter Disable Input-Low	VDISL	0		0.8	V	
Transmitter Fault Input-High	VTxFH	2		Vcc+0.3	V	
Transmitter Fault Input-Low	VTxFL	0		0.8	V	
Receiver						
Total Supply Current	ICC			B	mA	Note 1
LOSS Output Voltage-High	VLOSH	2		Vcc+0.3	V	LVTTL
LOSS Output Voltage-Low	VLOSL	0		0.8	V	

Note 1: A (TX) + B (RX) = 280mA (Not include termination circuit)