Features

- Single 3.3 V supply
- 2 km reach
- Supports 1.06/2.125/4.25Gb/s Fibre Channel Operation
- Gigabit Ethernet compatible
- 1310nm FP Laser
- SFP MSA SFF-8074i compliant
- Digital Diagnostic SFF-8472 compliant
- Compatible with RoHS
- Operating case temperature:

  Industrial : -40 to +85°C

Applications

• Tri Rate 1.06 / 2.125 / 4.25Gbp/s Fibre Channel

• 1.25Gbp/s 1000Base-LX Ethernet and 1000Base-LX10 (Rate selectable version)

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Units	Notes
Storage Temperature	Tst	-40	+85	°C	-
Operating Case Temperature	Tc	-40	+85	°C	-
Operating Humidity	RH	5	90	%	Non-condensing
Power Supply Voltage	Vcc-Vee	0	3.6	V	-

Recommended Operating Conditions

Parameter		Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Industrial	Tc	-40		+85	°C
Power Supply Voltage		Vcc	3.13	3.3	3.47	V
Power Supply Current		Icc			300	mA

Optical and Electrical Characteristics

Parameter		Symbol	Min	Typical	Max	Unit	Notes
Transmitter							
Data Rate				4.25		Gb/S	
Centre Wavelength		λC	1260	1310	1360	nm	
Spectral Width		Δλ			1	nm	
Side Mode Suppression Ratio		SMSR	20			dB	
Average Output Power(BOL)		Pout	-8		0	dBm	1
Extinction Ratio		ER	5			dB	
Average Launch Power-OFF Transmitter		Pout			-40	dBm	
Optical Eye Diagram		Fibre Channel Compliant					
Optical Rise/Fall Time (20%~80%)		tr/tf			130	ns	
Data Input Swing Differential		V_{IN}	200		2400	mV	2
Input Differential Impedance		Z_{IN}	90	100	120	Ω	
TX Disable	Disable		2.0		Vcc	V	
	Enable		0		0.8	V	
TX Fault	Fault		2.0		Vcc	V	
	Normal		0		0.8	V	
Receiver							
Centre Wavelength		λC	1260		1360	nm	
Receiver Sensitivity(BOL)		Sen			-20	dBm	3
LOS De-Assert		LOS_D			-20	dBm	
LOS Assert		LOS_A	-28			dBm	
LOS Hysteresis			0.5		6	dB	
Receiver Reflectance					-20	dB	
Data Output Swing Differential		V_{out}	350		1800	mV	4
Loss of Signal (LOS) Assert Time		TAssert			500	nS	
Loss of Signal (LOS) Deassert Time		TDeassert			500	nS	
LOS		High	2.0		Vcc	V	
		Low			0.8	V	

Notes:

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS 2^7-1 test pattern @4250Mbps, BER ≤1×10^{-12}.
4. CML Output, internally AC-coupled.

Diagnostics Specification

Parameter	Range	Unit	Accuracy	Calibration
Temperature	-40 to +85	°C	±3°C	Internal / External
Voltage	3.0 to 3.6	V	±3%	Internal / External
Bias Current	0 to 100	mA	±10%	Internal / External
TX Power	-9 to -3	dBm	±3dB	Internal / External
RX Power	-23 to -3	dBm	±3dB	Internal / External

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP-4GLXDH	Starview SFP module Multi-rate 125Mbps to 4.25Gbps Fiber Optic 1310nm SM (LC) with Digital Diagnostic Monitoring (DDM), Industrial temperature range, distance up to 2km	-8 to 0	-28 to -20	20	2	YES