

SV-SFP28-LRD8xx

25GbE 1295nm TX/ 1309nm RX (1309nm TX/ 1295nm) SM (LC) with DDM, distance up to 80km



Features

- Support data rate up to 25.78125Gb/s
- Hot-Pluggable SFP Footprint and Single LC Connector
- Up to 80km reach for G.652 SMF
- EML laser and Integrated SOA & PIN TIA ROSA
- RoHS 6 compliance
- Compliant to IEEE 802.3cc, SFF-8472 and SFF-8419
- Complies with EU Directive 2015/863/EU
- Compliant with SFP+ MSA
- Power consumption:2.5W
- Temperature Range:0°C ~70°C

Applications

- 25G Ethernet
- CPRI option 10

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP28-LRD83	Starview SFP28 Single Fiber Bi-Directional module supporting dual rate 10Gbps and 25Gbps 1295nm TX/ 1309nm RX single fiber SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 80km.	2 to +7	-24 to -4	26	80	Yes
SV-SFP28-LRD84	Starview SFP28 Single Fiber Bi-Directional module supporting dual rate 10Gbps and 25Gbps 1309nm TX/ 1295nm RX single fiber SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 80km.	2 to +7	-24 to -4	26	80	Yes

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Storage Temperature	Tstg	-40		+85	°C	
Case Operating	TO	0		70	°C	
Relative Humidity - Storage	RHS	5		95	%	
Relative Humidity - Operating	RHO	5		85	%	
DC Supply Voltage	VCC	0		3.6	V	

Recommended Operating Conditions

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Case Operating Temperature	Top	0		70	°C	
Power Supply Voltage	VCC	3.13	3.3	3.47	V	
Transmission Distance	TD			80	km	Over SMF

Electrical Characteristics

High-Speed Signal: Compliant to CEI-25G-VSR

Low-Speed Signal: Compliant to SFF-8419

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Transmitter (Module Input)						
Differential Input Resistance	R_Rdin	90	100	110		
Input Differential Voltage	R_Vdiff			900	mVpp	
Tx_Disable	Normal Operation	VIL	-0.3	0.8	V	
	Laser Disable	VIH	2.0	VCC+0.3	V	
Receiver (Module Output)						
Differential Resistance	T_Rd	90	100	110	Ohm	
Output Differential Voltage	T_Vdiff			900	mVpp	
Differential Termination Resistance Mismatch	T_Rdm			10	%	
Rx los	Normal Operation	VOL	-0.3	0.4	V	
	Loss Signal	VOH	2	VCCHOST	V	

Optical and Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Transmitter						
Optical Modulation	POMA	2		8	dBm	
Average Output Power	POUT	2		7	dBm	
Average Output Power(Laser	POFF			-30	dBm	

Wavelength	λ	1281	1295	1297	nm	
		1306	1309	1322		
Spectrum Bandwidth @ -	$\Delta\lambda$			1	nm	
Side mode suppression	SMSR	30			dB	
Extinction ratio	ER	8			dB	
Transmitter and dispersion				2.7	dB	
RIN20OMA	RIN			-130	dB/Hz	
Receiver						
Wavelength	λ	1306	1309	1322	nm	
		1281	1295	1297		
Received Sensitivity	PSEN			-24	dBm	1
Optical Power Overload	PIN(SAT)	-4			dBm	
Damage threshold		3			dBm	2
Rx_LOS of Signal Assert	PA	-40			dBm	
Rx_LOS of Signal De-assert	PD			-28	dBm	
Rx_LOS of Signal Hysteresis	PHy	0.5		5	dB	
Optical Return Loss Tolerance	ORLT	20			dB	

Notes:

1. Test pattern: PRBS31. BER<5x10⁻⁵;
- 2.The receiver shall be able to tolerate, without damage, continuous exposure to an optical input signal having this average power level. The receiver does not have to operate correctly at this input power.

Digital Diagnostics

Parameter	Range	Accuracy	Unit	Calibration
Temperature	0 to 70	±3	°C	Internal
Voltage	3.13 to 3.47	±3%	V	Internal
Tx Bias Current	0 to 100	±10%	mA	Internal
Tx Output Power	2 to 7	±3	dB	Internal
Rx Input Power	-24 to -4	±3	dB	Internal