SV-SFP28-LRD1

25Gbps 1310nm SM (LC) with DDM, distance up to 10km

Features

- Operating Data Rate Support 24.33Gbps and 25.78Gbps with CDR Engaged Mode
- Operating Data Rate Support 9.95Gbps and 10.31Gbps with CDR Bypassed Mode
- 1310nm DFB-LD Transmitter
- Distance up to 10km
- Single 3.3V Power Supply
- Duplex LC Connector Interface, Hot Pluggable
- Built-in Dual CDR
- Compliant with MSA SFP+ Specification SFF-8402
- Power Dissipation < 1.2W (Standard)
- Power Dissipation < 1.5W(Industrial)
- Operating Case Temperature:
  Standard: 0℃~+70℃
  Industrial: -40℃~+85℃
- Safety Certification: TUV/UL/FDA
- RoHS Compliant

Applications

- CPRI Option 10
- 25GbE
- 10GbE Optical Link

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP28-LRD1	Starview SFP28 module supporting 25Gbps 1310nm SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 10km	-7 to 2	-12 to 2	5	10	Yes
SV-SFP28-LRD1H	Starview SFP28 module supporting 25Gbps 1310nm SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 10km, Industrial temperature range	-7 to 2	-12 to 2	5	10	Yes

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	TS	-45	+100	°C
Supply Voltage	VCC	-0.5	4.0	V
Operating Relative Humidity	RH	5	95	%

Recommended Operating Conditions

Parameter	Symbol		Min.	Typical	Max.	Unit
Operating Case Temperature	TC	Standard	0		70	°C
		Industrial	-40		85	°C
Power Supply Voltage	VCC		3.135		3.465	V
Power Supply Current	ICC	Standard			360	mA
		Industrial			455	mA

Performance Specifications – Electrical

Parameter	Symbol	Min.	Typ.	Max	Unit	Notes
Transmitter						
CML Inputs(Differential)	Vin	200		900	mVpp	AC coupled inputs
Input Impedance (Differential)	Zin		100		ohms	Connected directly to TX pins
Tx_DISABLE Input Voltage – High		2		Vcc+0.3	V	
Tx_DISABLE Input Voltage – Low		-0.3		0.8	V	
Receiver						
CML Outputs (Differential)	Vout	300		1000	mVpp	AC coupled outputs
Rx_LOS Output Voltage – High		2		Vcc+0.3	V	
Rx_LOS Output Voltage – Low		-0.3		0.8	V	

Performance Specifications – Electrical

Parameter	Symbol	Min.	Typical	Max.	Unit
9um Core Diameter SMF				10	km
Transmitter					
Centre Wavelength	λC	1295	1310	1325	nm
Spectral Width (-20dB)	Δλ			1	nm
Average Output Power@25.78Gb/s	Pout	-7		2	dBm
Extinction Ratio	ER	3			dB
Transmitter Dispersion Penalty	TDP			2.7	dB
Receiver					
Centre Wavelength	λC	1260	1310	1355	nm
Receiver Sensitivity(OMA)*Note5	RxOMA			-12	dBm
Stressed Receiver Sensitivity(OMA)*Note5	RxSRS			-9.5	dBm
Receiver Overload	Pmax	2			dBm
Receiver Reflectance				-26	dB
LOS De-Assert	LOSD			-17	dBm
LOS Assert	LOSA	-30			dBm
LOS Hysteresis	HY	0.5			dB

Note5: Measured with data rate at 25.78Gb/s, BER less than 5E-5 with PRBS 2^{31}-1.