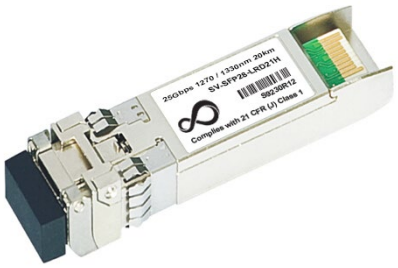
SV-SFP28-LRD2xxH



25GbE 1270nm TX/ 1330nm RX (1330nm TX/ 1270nm) SM (LC) with DDM, distance up to 20km

Features

- Operating data rate support 24.33G and 25.78Gbps
- Two types:
  A: 1271nm DFB Transmitter/ 1331nm Receiver
  B: 1331nm DFB Transmitter/ 1271nm Receiver
- Up to 20km over SMF
- Single 3.3V Power supply
- Power Dissipation < 1.5W(Industrial)
- LC Connector Interface, Hot Pluggable
- Built-in dual CDR
- Compliant with Specification SFF-8402
- Build-in digital diagnostic functions
- Operating Case Temperature: Industrial: -40℃~+85℃
- Safety Certification: TUV/UL/FDA
- RoHS Compliant

Applications

- CPRI Option 10
- 25GbE

Ordering Information

Part mber	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP28-LRD21H	Starview SFP28 Single Fiber Bi-Directional module supporting 25GbE 1270nm TX/ 1330nm RX single fiber SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 20km. Industrial temperature range.	0 to 4	-30 to -14.5	30	20	Yes
SV-SFP28-LRD22H	Starview SFP28 Single Fiber Bi-Directional module supporting 25GbE 1330nm TX/ 1270nm RX single fiber SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 20km. Industrial temperature range.	0 to 4	-30 to -14.5	30	20	Yes

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	TS	-40	+85	°C
Supply Voltage	VCC	-0.5	+3.6	V
Operating Relative Humidity	RH	5	95	%

Recommended Operating Conditions

Parameter	Symbol		Min.	Typical	Max.	Unit
Operating Case Temperature	TC	Industrial	-40		85	°C
Power Supply Voltage	VCC		3.135		3.465	V
Power Supply Current	ICC	Industrial			433	mA

Performance Specifications – Electrical

Parameter	Symbol	Min.	Typ.	Max	Unit	Notes
Transmitter						
CML Inputs (Differetial)	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 (Differetial)	Vout	300		1000	mVpp	AC coupled outputs
Rx_LOS Output Voltage – High		2.4		Vcc+0.3	V	
Rx_LOS Output Voltage – Low		-0.3		0.8	V	

Optical and Electrical Characteristics-1271nm DFB & 1331nm PIN/TIA

Parameter	Symbol	Min.	Typical	Max.	Unit
9um Core Diameter SMF				20	Km
Data Rate				25.78	Gbps
Transmitter					
Optical Center Wavelength	λ	1264.5	1271	1277.5	nm
Spectral Width (-20Db)	Δλ			1	nm
Average Output Power@25.78Gb/s	PAVG	0		4	dBm
Extinction Ratio	ER	3.5			Db
Transmitter Dispersion Penalty	TDP			3.5	Db
Side Mode Suppression Ratio	SMSR	30			Side Mode Suppression Ratio
Average Launch Power of OFF Transmitter	POFF			-30	Average Launch Power of OFF Transmitter
Receiver					
Center Wavelength	λC	1324.5	1331	1337.5	nm
Receiver Sensitivity*Note4	Pmin			-14.5	dBm
Receiver Overload*Note5	Pmin	2.5			dBm
LOS De-Assert	LOSD			-17	dBm
LOS Assert	LOSA	-30			dBm
LOS Hysteresis		0.5			Db

Note4: Measured with data rate at 25.78Gb/s, BER less than 5E-5 and PRBS 2^{31}-1.

Note5: Targeted for long reach application with high power transmitter. Please ensure at least 3Db optical attenuation for optical loopback test.

Optical and Electrical Characteristics 1331nm DFB & 1271nm PIN/TIA

Note5: Measured with data rate at 25.78Gb/s, BER less than 5E-5 and PRBS 231-1.

Parameter	Symbol	Min.	Typical	Max.	Unit
9um Core Diameter SMF				20	Km
Data Rate				25.78	Gbps
Transmitter					
Optical Center Wavelength	λ	1324.5	1331	1337.5	nm
Spectral Width (-20Db)	Δλ			1	nm
Average Output Power@25.78Gb/s	PAVG	0		4	dBm
Extinction Ratio	ER	3.5			Db
Transmitter Dispersion Penalty	TDP			3.5	Db

Side Mode Suppression Ratio	SMSR	30			Side Mode Suppression Ratio
Average Launch Power of OFF Transmitter	POFF			-30	Average Launch Power of OFF Transmitter
Receiver					
Center Wavelength	λC	1264.5	1271	1277.5	nm
Receiver Sensitivity*Note6	Pmin			-14.5	dBm
Receiver Overload*Note7	Pmin	2.5			dBm
LOS De-Assert	LOSD			-17	dBm
LOS Assert	LOSA	-30			dBm
LOS Hysteresis		0.5			Db

Note6: Measured with data rate at 25.78Gb/s, BER less than 5E-5 and PRBS 2^{31}-1.
Note7: Targeted for long reach application with high power transmitter. Please ensure at least 3Db optical attenuation for optical loopback test.