

SV-SFP28-LRD1Dxx

25Gbps, CWDM, Single mode, 10km, with DDM



Features

- Operating data rate support 25.78Gbps
- Available in all C-Band Wavelengths on the 100GHz DWDM ITU Grid
- Temperature-Stabilized DWDM EML Transmitter
- Duplex LC Connector
- Power Dissipation < 2W
- With CDR function
- Dispersion tolerance from -170ps/nm to 170ps/nm
- Hot-Pluggable
- Compliant with SFF-8402
- Operating Case Temperature: 0°C~+70°C
- Safety Certification: TUV/UL/FDA
- RoHS Compliant

Applications

- 25GbE

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP28-LRD1DXX	Starview SFP28 DWDM module supporting 25Gbps DWDM SM (LC) 100GHz spacing with Digital Diagnostic Monitoring (DDM), distance up to 10km	-3 to 2	-10 to 2	7	10	YES

where ## denotes *[see DWDM Wavelength Guide]

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	85	%

Recommended Operating Conditions

Parameter	Symbol	Min.	Typical	Max.	Unit
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage	Vcc	3.15	3.3	3.45	V
Power Supply Current	Icc			606	mA

Performance Specifications – Electrical

Parameter	Symbol	Min.	Typ.	Max	Unit	Notes
Transmitter						
CML Inputs(Differential)	Vin	40		1000	mVpp	AC coupled input*Note4
Input Impedance (Differential)	Zin		100		ohm	Rin > 100 kohm @ DC
TX_Dis	Disable	2		Vcc+0.3	V	
	Enable	0		0.8		
TX_FAULT	Fault	2		Vcc+0.3	V	
	Normal	0		0.8		
Receiver						
CML Outputs (Differential)	Vout	450		1050	mVpp	AC coupled output*(Note 4)
Output Impedance (Differential)	Zout	85	100	115	ohm	
RX_LOS	LOS	2		Vcc+0.3	V	
	Normal	0		0.8	V	

Performance Specifications – Optical

Parameter	Symbol	Min.	Typical	Max.	Unit
Transmitter					
Center Wavelength Spacing			100		GHz
			0.8		nm
Side Mode Suppression Ratio	SMSR	30			dB
Average Output Power@25.78Gb/s*Note5	Pout	-3		2	dBm
Extinction Ratio	ER	3			dB
Receiver					
Receiver Sensitivity@25.78Gb/s*Note6	Pmin			-10	dBm
Receiver Overload	Pmax	2			dBm
LOS De-Assert	LOSD			-17	dBm
LOS Assert	LOSA	-30			dBm
LOS Hysteresis	Hy	0.5			dB
Optical Signal To Noise Ratio Tolerance	OSNR	33			dB

Note4: CML logic, internally AC coupled.

Note5: Output is coupled into a 9/125µm single-mode fiber.

Note6: Minimum average optical power measured at the BER less than 5E-5. The measure pattern is PRBS $2^{31}-1$.

DWDM Wavelength Guide

Channel	Frequency(THZ)	Wavelength(nm)	Channel	Frequency(THZ)	Wavelength(nm)
17	191.7	1563.86	40	194.0	1545.32
18	191.8	1563.05	41	194.1	1544.53
19	191.9	1562.23	42	194.2	1543.73
20	192.0	1561.42	43	194.3	1542.94
21	192.1	1560.61	44	194.4	1542.14
22	192.2	1559.79	45	194.5	1541.35
23	192.3	1558.98	46	194.6	1540.56
24	192.4	1558.17	47	194.7	1539.77
25	192.5	1557.36	48	194.8	1538.98
26	192.6	1556.55	49	194.9	1538.19
27	192.7	1555.75	50	195.0	1537.40
28	192.8	1554.94	51	195.1	1536.61
29	192.9	1554.13	52	195.2	1535.82
30	193.0	1553.33	53	195.3	1535.04

DATASHEET 5.0

31	193.1	1552.52	54	195.4	1534.25
32	193.2	1551.72	55	195.5	1533.47
33	193.3	1550.92	56	195.6	1532.68
34	193.4	1550.12	57	195.7	1531.90
35	193.5	1549.32	58	195.8	1531.12
36	193.6	1548.51	59	195.9	1530.33
37	193.7	1547.72	60	196.0	1529.55
38	193.8	1546.92	61	196.1	1528.77
39	193.9	1546.12			