

# SV-SFP-SGLXD2

100BaseFX/ OC3,1310nm, 20km



## Features

- 1310nm Laser and PIN Photo-Detector
- 20km distance over SMF at least
- Build-in PHY supporting SGMII Interface
- Support More Link Status Monitor, Such as CRC, Package Counter and Far End Fault Indication(FEFL)
- Single 3.3V Power Supply and TTL Logic Interface
- Compliant with SFP MSA package with duplex LC Connector
- Standard Serial ID information Compliant with SFP MSA
- Operating Case Temperature  
Standard: 0°C ~+70°C  
Industrial: -40°C ~+85°C

## Applications

- 100BASE-FX
- Switched Backplane Applications
- Switch to Switch Interface
- Other Optical Transmission Systems

## Ordering Information

Part number	Description
SV-SFP-SGLXD2	Starview SFP Dual Fiber Serial Gigabit Media Independent Interface (SGMII) module 100BaseFX/ OC3 1310nm SM (LC) with Digital Diagnostic Monitoring (DDM), distance up to 20km

## Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Storage Temperature	Ts	-40		85	°C
Operative Relative Humidity		5		95	%
Supply Voltage	VCC	-0.5		3.6	V

## Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	Ts	0		+70	°C	
		-40		+85		
Power Supply Voltage	Vcc	3.15	3.3	3.45	V	
Power Supply Current	Icc			360	%	
Date Rate			125			

## Optical and Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
SMF	L		20		km	
Data Rate			125		Mbps	
<b>Transmitter</b>						
Center Wavelength	$\lambda_C$	1260	1310	1360	nm	
Spectral Width (RMS)	$\Delta\lambda$			4	nm	
Average Output Power	Pout	-15		-8	dBm	Note (5)
Extinction Ratio	ER	9			dB	
Rise/Fall Time(20%~80%)	tr/tf			3	ns	
Total Jitter	TJ			1.0	ns	
Output Optical Eye	Compliant with IEEE 802.3-2002					Note(6)
TX_Disable Assert Time	t_off			10	us	
TX Disable Asserted	Pout			-45	dBm	
LVPECL Inputs(Differential)	Vin	400		2000	mVpp	AC coupled inputs*(note4)
Input Impedance (Differential)	Zin	85	100	115	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					
Center Wavelength	$\lambda_C$	1260	1600	nm	
Receiver Sensitivity	Pmin		-31	dBm	(note7)
Return Loss		12		dB	
LOS De-Assert	LOSD		-33	dBm	
LOS Assert	LOSA	-45		dBm	
Overload	Pmax	-8		dBm	(note7)
LVPECL Outputs (Differential)	Vout	400	2000	mVpp	AC coupled inputs*(note4)
Output Impedance (Differential)	Zout	85	100	115	ohm
RX_LOS	LOS	2	Vcc+0.3	V	
	Normal	0	0.8	V	
MOD_DEF ( 0:2 )	VoH	2.5		V	With Serial ID
	VoL	0	0.5	V	

Note(4): PECL logic, internally AC coupled.

Note(5): Output is coupled into a 9/125 $\mu$ m single-mode fiber.

Note(6): Measured with 4B/5B code for 125Mbps.

Note(7): Measured with 4B/5B code for 125Mbps, worst-case extinction ratio, and BER 1E-12.