SV-SFP-OC3SD16

155Mbps,1550nm,Single mode,
160km, with or without DDM
Function

Features

- Up to 155Mbps data-rate
- 1550nm DFB laser and APD photo detector for
- 160km transmission
- Compliant with SFP MSA and SFF-8472 with
- duplex LC receptacle
- Digital Diagnostic Monitoring:
- Internal Calibration or External Calibration
- Compatible with RoHS
- +3.3V single power supply
- Operating case temperature:
  Standard : 0 to +70°C

Applications

- Gigabit Ethernet
- Fiber Channel
- Switch to Switch interface
- Switched backplane applications
- Router/Server interface
- Other optical transmission systems

Ordering Information

Part number	Description	TX Power (dBm)	RX Sens. (dBm)	Fiber Budget (dB)	Distance (km)	DDM
SV-SFP-OC3S16	Starview SFP module ，100BaseFX/ OC3 1550nm SM (LC), distance up to 160km	1 to 5	-37 to -10	36	160	NO
SV-SFP-OC3SD16	Starview SFP module with Digital Diagnostic Monitoring (DDM), 100BaseFX/ OC3 1550nm SM (LC), distance up to 160km	1 to 5	-37 to -10	36	160	YES

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Supply Voltage	Vcc	-0.5	4.5	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	-	5	85	%

Recommended Operating Conditions

Parameter		Symbol	Min.	Typ.	Max.	Unit	Note
Case Operating Temperature	Standard	Tc	0		+70	°C	
	Industrial		-20		+80		
Power Supply Voltage		Vcc	3.13	3.3	3.47	V	
Power Supply Current		Icc			300	mA	
Data Rate				155		Mbps	

Optical and Electrical Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter							
Centre Wavelength		λc	1480	1550	1580	nm	
Spectral Width (-20dB)		Δλ			1	nm	
Side Mode Suppression Ratio		SMSR	35			dB	
Average Output Power		Pout	1		5	dBm	1
Extinction Ratio		ER	9			dB	
Data Input Swing Differential		V_{IN}	400		1800	mV	2
Input Differential Impedance		Z_{IN}	90	100	110	Ω	
TX Disable	Disable		2		Vcc	V	
	Enable		0		0.8	V	
TX Fault	Normal		0		0.8	V	
	Fault		2		Vcc	V	
Reciever							
Centre Wavelength		λc	1260		1580	nm	
Receiver Sensitivity					-37	dBm	4
Receiver Overload			-10			dBm	4
LOS De-Assert		LOS_D			-39	dBm	
LOS Assert		LOS_A	-45			dBm	
LOS Hysteresis			1		4	dB	
Data Output Swing Differential		Vout	370		1800	mV	5
LOS	High		2		Vcc	V	
	Low				0.8	V	

1. The optical power is launched into SMF.

2. PECL input, internally AC-coupled and terminated.

3. Measured with a PRBS 2^{23}-1 test pattern 155Mbps, BER ≤1×10^{-10}.

4. Internally AC-coupled.

Diagnostic Specifications

Parameter	Range	Unit	Accuracy	Calibration
Temperature	0 to +70 -20 to +85	°C	±3°C	Internal / External
Voltage	3.0 to 3.6	V	±3%	Internal / External
Bias Current	0 to 100	mA	±10%	Internal / External
TX Power	1 to +5	dBm	±3dB	Internal / External
Los Of Signal De-assert	PD	-44		
LOS Hysteresis	PA-PD	0.5	2	6