

SV-CFP-100G-PSR10

100GBase aggregating 10 x duplex MM 850nm (MPO-24) with DDM, distance up to 100m on 50/125um OM3 MM fiber, 150m for 50/125um MM OM4 MM fiber, supporting 100GE.



Features

- Transmission data rate up to 11.2Gbit/s per channel
- CFP MSA compliant
- Compliant to IEEE 802.3ba specification for 100GBASE-SR10 links
- Up to 11.2 Gbps per channel bandwidth,
- OTU4 compatible
- 10 channels 850nm VCSEL array
- 10 channels PIN photo detector array
- OM3 Multimode Fiber cable of up to 300m and OM4 Multimode Fiber cable of up to 400m
- MDIO digital diagnostic and control capabilities.
- compliant to CFP MSA Management Interface Specification, Draft 1.4
- TX input and RX output CDR retiming
- Hot pluggable electrical interface
- Power class 1 (<8W max)
- Operating case temperature 0°C to +70°C
- 3.3V power supply
- RoHS 6 compliant(lead free)

Applications

- High-speed core router interlinks and data center aggregation
- Test equipment

Ordering Information

Part number	Description
SV-CFP-100G-PSR10	Starview CFP 100Gbps module 100GBase aggregating 10 x duplex MM 850nm (MPO-24) with Digital Diagnostic Monitoring (DDM), distance up to 100m on 50/125um OM3 MM fiber, 150m for 50/125um MM OM4 MM fiber, supporting 100GE.

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	-0.3	3.6	V
Input Voltage	Vin	-0.3	Vcc+0.3	V
Storage Temperature	Tst	-20	85	°C
Case Operating Temperature	Top	0	70	°C
Humidity(non-condensing)	Rh	5	95	%

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Supply Voltage	Vcc	3.13	3.3	3.47	V	
Operating Case temperature	Tca	0		70	°C	
Data Rate Per Lane	fd	-		11.2	Gbps	

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Differential input impedance	Zin	90	100	110	ohm
Differential Output impedance	Zout	90	100	110	ohm
Differential input voltage amplitude	ΔV_{in}	120		820	mVp-p
Differential output voltage amplitude	ΔV_{out}	300		820	mVp-p
Input Logic Level High	V _{IH}	2.0		V _{CC}	V
Input Logic Level Low	V _{IL}	0		0.8	V
Output Logic Level High	V _{OH}	V _{CC} -0.5		V _{CC}	V
Output Logic Level Low	V _{OL}	0		0.4	V

1. Differential input voltage amplitude is measured between TxnP and TxnN.
2. Differential output voltage amplitude is measured between RxnP and RxnN.

Optical Characteristics

Transmitter Optical Specifications (T = 25°C, VCC =3.3V +/- 5%)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Average Optical Power(per channel)	P _{out}	-8	-2.5	+1	dBm
Average Optical Power(per channel) - Disabled	P _{off}			-30	dBm
Optical Return Loss Tolerance				12	dB
Extinction Ratio	ER	3			dB
Center Wavelength	λ_c	840	850	860	nm

1. Average optical power is measured at the output of the modules optical interface.

Receiver Optical Specifications (T = 25° C, VCC = 3.3V +/- 5%)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Optical Power Sensitivity(per channel)	P _{in min}		-12	-9.9	dBm
Optical Power Saturation(per channel)	P _{in max}	+1			dBm
Stressed Receiver Sensitivity	P _s			-5.4	dBm
Center Wavelength	λ _c	840	850	860	nm