

Key Highlights:

- **Type:** 100GBASE-SR10 CFP
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx/Rx Wavelength:** 850 nm. / 850 nm.
- **Laser:** VSCEL
- **Fiber Type:** Multi-Mode Fiber (MMF)
- **Connectors:** MTP/MPO
- **Optical Budget:** 1.9dB
- **Max. Distance:** 100M (OM3), 150M (OM4)
- **Data Rate:** 103.125-111.81 Gbps
- **DDM/DOM:** Supported
- **Power Consumption:** $\leq 7W$
- **Temperature:** Standard 0° - 70°C



Optical Transceiver : 100G-CFP-150

Product Description:

100G-CFP-150 is Multi-Vendor MSA Compatible 100GBASE-SR10 CFP (Centum Form Factor Pluggable) Transceiver, operating over pair of multi-mode optical fiber. Module has minimum guaranteed optical budget of 1.9 dB, which in most cases is enough to reach 150 m over OM4 multi-mode fiber, or 100 m over OM3 multi-mode fiber. However, distance is just indicative parameter calculated for comfort of identification. Eventually we calculate distance taking in account minimal optical budget and average attenuation of optical cabling in industry. 100G-CFP-150 use 10 x VCSEL (Vertical Cavity Surface Emitting Laser) transmitters operating at nominal wavelength 850 nm and 10 x 850 nm PIN Photodiode receivers. Module support DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. 100G-CFP-150 operates in Standard 0°-70°C temperature range and has MTP/MPO connector.

100GBASE-SR10 CFP support 103.125-111.81 Gbps data rate and such applications as 100G Ethernet (103.125Gbps), Optical Transport Network OTU4 411-9D1F (111.81Gbps). 100G-CFP-150 optical transceiver is multi-purpose module used in number of different places in today's networking environment. Most popu-



lar applications are Internet Service Provider (ISP) Fiber to the Home Aggregation and Backbone, Mobile Operator Core Networks, Mobile Backhaul and Data Center networking site interconnections.

100G-CFP-150 is CE/RoHS certified and it is Compliant with product safety standards. 100GBASE-SR10 CFP Transceiver is fully compliant to CFP Multi Source Agreement (MSA), IEEE 802.3ba 100GBASE-SR10. Consequently compliance to above standards guarantees that module is compatible and works with majority of networking equipment, where is not implemented special algorithm for protection against third party modules. However – our technical team has accumulated deep expertise in custom-encoded firmware's for 100GBASE-SR10 CFP transceiver in order to make it work in almost any brand equipment. We will be glad to know your requirements.

Product Specification:

General parameter	Value
Media Type:	10 Lanes of MMF
Connectors:	MTP/MPO
TX Wavelength:	850 nm.
RX Wavelength:	850 nm.
Minimum Optical Budget:	1.9dB
Maximum Distance:	100 m (OM3) / 150 m (OM4)
Supported Data Rate:	103.125-111.81Gbps
Data Rate, each Lane up to:	10.3125Gbps (Ethernet), 11.181Gbps (OTU4)
Modulation:	NRZ
Supported Applications:	100G Ethernet (103.125Gbps), OTU4 411-9D1F (111.81Gbps)
Digital Diagnostic Monitoring (DDM):	Supported
Optical Clock And Data Recovery (CDR):	Supported
Operating Temperature Range:	Standard 0°- 70°C
Storage Temperature Range:	- 40° to 85°C
Relative Humidity (Non-Condensation):	0 to 85%
Power Consumption:	≤ 7W
Power Supply Voltage Typical:	+ 3.3V
Power Supply Voltage Range:	-3.135 to 3.465V



General parameter	Value
Chipset:	MAXIM, MINDSPEED, SEMTECH, TI, SUMITOMO
Compliance:	CFP MSA, IEEE 802.3ba 100GBASE-SR10, OTN OTU4, CE, RoHS-6, Class 1 FDA, IEC60825-1 Laser Safety Compliant

Transmitter Parameters:	Value
Transmitter Type:	VSCEL Laser
Tx Wavelength Bandwidth:	20 nm (840-860 nm)
Total Average Launch Power (Min):	- 7.6 dBm
Total Average Launch Power (Max):	-2.4 dBm
Transmit OMA Each Lane(Min):	-5.6 dBm
Transmit OMA Each Lane(Max)	3 dBm
Transmitter and dispersion penalty (Max) Each Lane:	3.5 dB
Difference in Launch Power between any Two Lanes OMA (Max):	4 dBm
Peak Power Each Lane (Max):	4 dBm
Extinction Ratio (Min):	3 dB
Relative Intensity Noise (Max):	- 130 dB/Hz
Optical Return Loss Tolerance (Max):	- 12 dB
Average Launch Power OFF Transmitter (Max) Each Lane:	- 30 dB

Receiver Parameters:	Value
Receiver Type:	PIN Photodiode
Rx Wavelength Bandwidth:	20 nm (840-860 nm)
Average Receive Power (Min):	-9.5 dBm
Average Receive Power (Max):	2.4 dBm



Receiver Parameters:	Value
Receiver Overload Each Lane:	3.4 dBm
Optical Modulation Amplitude Each Lane (Max):	3 dBm
Stressed Receiver Sensitivity (OMA) Each Lane:	-5.4 dB
Receiver Reflectance (Max):	-12 dB
Average Power at Receiver Input, Each Lane (Min):	-9.5 dBm
Average Power at Receiver Input, Each Lane (Max):	+ 2.4 dBm
Peak Power, Each Lane (Max):	4 dB

Compatibility:

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more than 100 vendor brands in data and telecom communications industry:

MS - General MSA
AD - ADVA
AE - Advantech
AL - Alcatel (Nokia)
AT - Allied Telesis
AR - Arista
AS - Arris
AV - Avaya
BC - Barracuda
BR - Broadcom
QL - Cavium (Qlogic)
CR - Ceragon
CP - Checkpoint
CH - Chelsio
CN - Ciena
CI - Cisco
LI - Cisco (Linksys)
CE - Comnet
CO - Coriant
DH - Dahua
DC - DCN
DL - Dell & Force10
DK - D-Link

DZ - DZS(Dasan-Zhone)
EI - ECI
EC - EdgeCore
EW - EdgeWare
EL - Eltex
EM - EMC2
EN - Enterasys
ER - Ericsson
EF - EXFO
EX - Extreme Networks
F5 - F5 Networks
FI - Finisar
FO - Fortinet
FU - Fujitsu
H3 - H3C
HI - Hirschmann
HU - Huawei
IB - IBM
IF - Infinera
IN - Intel
IX - Ixia
JU - Juniper Networks
KM - KeyMile

KY - KyLand
LN - Lenovo
ML - Mellanox
ME - Meraki (Cisco)
MT - MikroTik
MO - Moxa
MR - MRV
NC - NEC
NG - Netgear
NK - Nokia
NT - Nortel
NS - NSN
OR - Oracle
PA - Palo Alto Network
PL - Planet
QC - QCT(Quanta)
QN - QNAP
RD - RAD
RW - RadWare
RC - Raisecom
RK - Ruckus
RU - Ruijie Networks
SG - Samsung

SV - Sandvine
SC - Silicom
SF - SolarFlare
SW - Sonicwall
SM - Supermicro
SY - Synology
TC - Telco Systems
TP - TP-LINK
TN - Trendnet
UN - Ubiquiti Networks
VX - VeEx
WG - WatchGuard
WS - Waystream
WT - Westermo
ZT - ZTE
ZX - Zyxel
HP - HP
AG - Avago
OC - Oclaro
EU - Emulex
TM - Transmode
AU - HP Aruba
XX - Other



Warranty:

EDGE Optic's provides a limited **warranty for sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship. Warranty does not cover damage caused by improper deployment, misuse and accidents.

