Cell Technology

Product Data Sheet

Cell SFP

Optical Small Form Pluggable Transceiver

Overview

Cell Small Form-factor Pluggable (SFP) is a state-of-the-art optical transceiver components designed for high-speed network access and transmission equipment which the communication links required data rates of up to 10Gbps. Cell SFP optical product modules are compact and hot-swappable plug-and-play capability for Gigabit Ethernet, Metro Ethernet, Fibre Channel applications and targeted for carriers' optical transmission with long haul connectivity.

Cell SFP supports a variety of communication network equipments in the market and as well as our Cell network access products such as Ethernet switch and CPEs. They comply with Gigabit Ethernet as specified in IEEE Std 802.3z and SFP Multi-Sourcing Agreement (MSA). Cell optical SFP product family are designed for multi-mode (850nm) and single-mode (1310/1550nm) fibres supported high-speed of bi-directional/single fiber communication links that require data rates of 1.25Gbps, 2.67Gbps and up to 10Gbps. Cell SFP Gigabit 1000BaseT interface is an ideal solution for current gigabit Ethernet switch with SFP interfaces to provide 1000Base-T full-duplex interconnection over existing UTP-5 copper infrastructures. Cell SFP 1000BASE-T provides full compatible with the existing Ethernet switch system in the market.

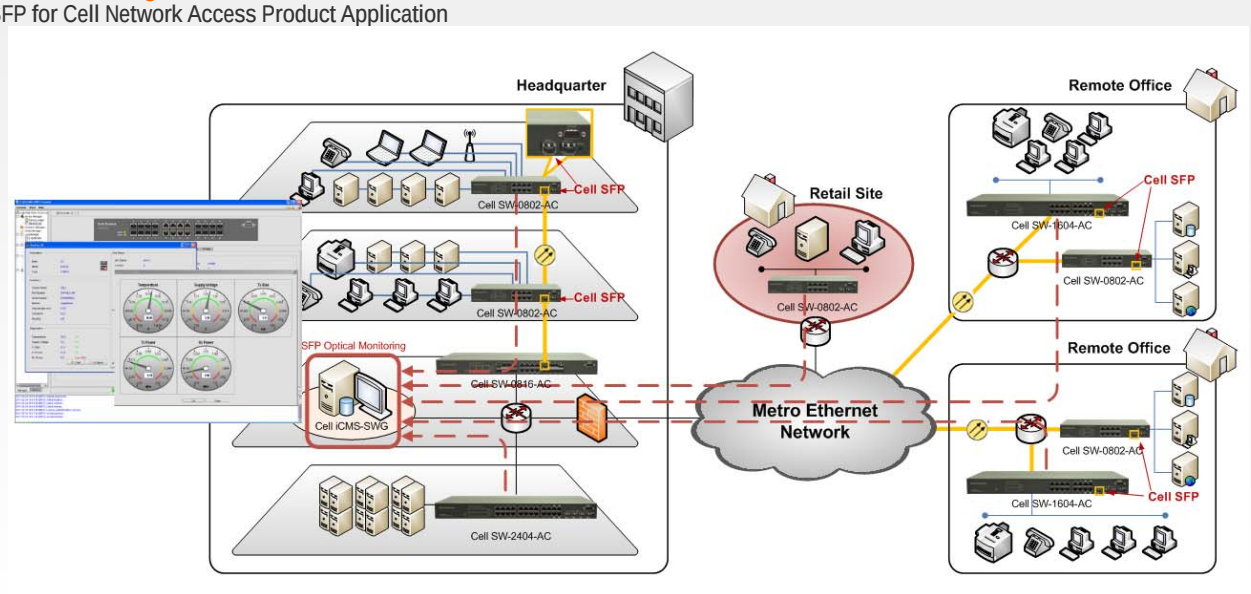
Cell SFP also supports a powerful digital diagnostic monitoring tool. It can manage the optical interfaces of our Cell network access products which included in Cell iCMS-SWG centralized management system.

Features

- Up to 1.25Gbps, 2.67Gp/s, and 10Gbps bi-directional data links
- With Multi Rate, BWDM (Single Fiber) and CWDM SFP
- With Diagnostic Monitoring Tool for Optical Performance Monitoring
- Hot Swappable for Fast Ethernet or Gigabit Ethernet SFP Ports for Transmission Equipments
- Duplex LC/or Simplex LC Connector
- Compliant with IEEE802.3z Gigabit Ethernet
- Metal Enclosure, for Lower EMI
- Single 3.3V Power Supply
- Laser Class 1 Product Comply with IEC 60825-1 and IEC 60825-2

Application

Cell SFP for Cell Network Access Product Application



Cell Technology

Product Data Sheet

Hardware Specification

155Mbps/1.25G/2.67G SFP

Cell SFP Model No.	Data Rate	Wavelength/ Light Source	Media Type	Connector Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Voltage (V)	Notes
SFP-155-2-DM	155 Mb/s	1310nm (LED)	MMF	LC	2 km	-14 ~ -20	<-31	0 ~ 70	3.3	
SFP-155-30-DM	155 Mb/s	1310nm (FP)	SMF	LC	30 km	-8 ~ -15	<-34	0 ~ 70	3.3	
SFP-155-60-DM	155 Mb/s	1310nm (FP)	SMF	LC	60 km	0 ~ -5	<-35	0 ~ 70	3.3	
SFP-155-20-DM	155 Mb/s	1550nm (DFB)	SMF	LC	20 km	0 ~ -5	<-34	0 ~ 70	3.3	
SFP-155-100-DM	155 Mb/s	1550nm (DFB)	SMF	LC	100 km	0 ~ -5	<-35	0 ~ 70	3.3	
SFP-155-120-DM	155 Mb/s	1550nm (DFB)	SMF	LC	120 km	+5 ~ 0	<-35	0 ~ 70	3.3	
SFP-SX-DM	1.25G	850nm (VCSEL)	MMF	LC	550 m	-4 ~ -9.5	<-18	0 ~ 70	3.3	
SFP-MLX-DM	1.25G	1310nm (FP)	MMF	LC	2 km	-1 ~ -9.5	<-19	0 ~ 70	3.3	
SFP-LX-DM	1.25G	1310nm (FP)	SMF	LC	10 km	-3 ~ -9.5	<-20	0 ~ 70	3.3	
SFP-LHX-DM	1.25G	1310nm (DFB)	SMF	LC	30 km	+1 ~ -4	<-24	0 ~ 70	3.3	
SFP-XD-DM	1.25G	1550nm (DFB)	SMF	LC	50 km	+1 ~ -4	<-24	0 ~ 70	3.3	
SFP-ZX-DM	1.25G	1550nm (DFB)	SMF	LC	80 km	+5 ~ 0	<-24	0 ~ 70	3.3	
SFP-EZX-DM	1.25G	1550nm (DFB)	SMF	LC	110 km	+5 ~ 0	<-30	0 ~ 70	3.3	
SFP-2.5G-0.5-DM	125M ~2.67G	1310nm (FP)	MMF	LC	500 m	0 ~ -7	<-17	0 ~ 70	3.3	
SFP-2.5G-5-DM	125M ~2.67G	1310nm (FP)	SMF	LC	5 km	-3 ~ -9	<-20	0 ~ 70	3.3	
SFP-2.5G-20-DM	125M ~2.67G	1310nm (DFB)	SMF	LC	20 km	0 ~ -5	<-20	0 ~ 70	3.3	
SFP-2.5G-LHX-DM	125M ~2.67G	1550nm (DFB)	SMF	LC	30 km	0 ~ -5	<-20	0 ~ 70	3.3	
SFP-2.5G-XD-55-DM	125M ~2.67G	1550nm (DFB)	SMF	LC	50 km	+4 ~ -1	<-21	0 ~ 70	3.3	
SFP-2.5G-XD-31-DM	125M ~2.67G	1310nm (DFB)	SMF	LC	50 km	+3 ~ -2	<-28	0 ~ 70	3.3	
SFP-2.5G-ZX-55-DM	125M ~2.67G	1550nm (DFB)	SMF	LC	80 km	+3 ~ -2	<-28	0 ~ 70	3.3	
SFP-2.5G-EZX-55-DM	125M ~2.67G	1550nm (DFB)	SMF	LC	110 km	+5 ~ -0	<-30	0 ~ 70	3.3	

Copper SFP

Cell SFP Model No.	Data Rate	Media Type	Connector Type	Reach	Temp. (°C)	Voltage (V)	Notes
SFP-TX-C1	1.25G	Copper	RJ45	100 m	0 ~ 70	3.3	10/100/1000M
SFP-TX-C2	1.25G	Copper	RJ45	100 m	0 ~ 70	3.3	1000M
SFP-E1	1.25G	Copper	RJ45	100 m	0 ~ 70	3.3	

Cell Technology

Product Data Sheet

Single Fiber SFP – 155M/1.25G BWDM (BX)

Cell SFP Model No.	Data Rate	Wavelength/ Light Source	Media Type	Connector Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Voltage (V)	Notes
SFP-155BX-20-31-DM	155 Mb/s	Tx1310/Rx1550	SMF	LC	20 km	-8 ~ -14	<-32	0 ~ 70	3.3	
SFP-155BX-20-55-DM	155 Mb/s	Tx1550/Rx1310	SMF	LC	20 km	-8 ~ -14	<-32	0 ~ 70	3.3	
SFP-155BX-40-31-DM	155 Mb/s	Tx1310/Rx1550	SMF	LC	40 km	0 ~ -8	<-34	0 ~ 70	3.3	
SFP-155BX-40-55-DM	155 Mb/s	Tx1550/Rx1310	SMF	LC	40 km	0 ~ -8	<-34	0 ~ 70	3.3	
SFP-155BX-60-31-DM	155 Mb/s	Tx1310/Rx1550	SMF	LC	60 km	0 ~ -5	<-34	0 ~ 70	3.3	
SFP-155BX-60-55-DM	155 Mb/s	Tx1550/Rx1310	SMF	LC	60 km	0 ~ -5	<-34	0 ~ 70	3.3	
SFP-155BX-80-31-DM	155 Mb/s	Tx1310/Rx1550	SMF	LC	80 km	+5 ~ 0	<-34	0 ~ 70	3.3	
SFP-155BX-80-55-DM	155 Mb/s	Tx1550/Rx1310	SMF	LC	80 km	0 ~ -5	<-35	0 ~ 70	3.3	
SFP-BX-10-31-DM	1.25G	Tx1310/Rx1550	SMF	LC	10 km	-3 ~ -9	<-21	0 ~ 70	3.3	
SFP-BX-10-55-DM	1.25G	Tx1550/Rx1310	SMF	LC	10 km	-3 ~ -9	<-21	0 ~ 70	3.3	
SFP-BX-20-31-DM	1.25G	Tx1310/Rx1550	SMF	LC	20 km	-3 ~ -8	<-23	0 ~ 70	3.3	
SFP-BX-20-55-DM	1.25G	Tx1550/Rx1310	SMF	LC	20 km	-3 ~ -8	<-23	0 ~ 70	3.3	
SFP-BX-40-31-DM	1.25G	Tx1310/Rx1550	SMF	LC	40 km	+2 ~ -3	<-23	0 ~ 70	3.3	
SFP-BX-40-55-DM	1.25G	Tx1550/Rx1310	SMF	LC	40 km	+2 ~ -3	<-23	0 ~ 70	3.3	
SFP-BX-60-31-DM	1.25G	Tx1310/Rx1550	SMF	LC	60 km	+5 ~ 0	<-24	0 ~ 70	3.3	
SFP-BX-60-55-DM	1.25G	Tx1550/Rx1310	SMF	LC	60 km	+2 ~ -3	<-25	0 ~ 70	3.3	
SFP-BX-80-51-DM	1.25G	Tx1510/Rx1570	SMF	LC	80 km	+3 ~ -2	<-26	0 ~ 70	3.3	
SFP-BX-80-57-DM	1.25G	Tx1570/Rx1510	SMF	LC	80 km	+3 ~ -2	<-26	0 ~ 70	3.3	

CWDM SFP – 155 M/1.25G/2.67G

Cell SFP Model No	Data Rate	Wavelength/ Light Source	Media Type	Connector Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Voltage (V)	Notes
SFP-155CWDM-30-yy-DM	155Mb/s	1270 ~ 1610nm	SMF	LC	30 dB	0 ~ -5	<-35	0 ~ 70	3.3	
SFP-155CWDM-35-yy-DM	155Mb/s	1270 ~ 1610nm	SMF	LC	35 dB	+5 ~ 0	<-35	0 ~ 70	3.3	
SFP-CWDM-20-yy-DM	1.25G	1270 ~ 1610nm	SMF	LC	20 dB	+1 ~ -4	<-24	0 ~ 70	3.3	
SFP-CWDM-24-yy-DM	1.25G	1270 ~ 1610nm	SMF	LC	24 dB	+5 ~ 0	<-24	0 ~ 70	3.3	
SFP-CWDM-27-yy-DM	1.25G	1270 ~ 1610nm	SMF	LC	27 dB	+5 ~ 0	<-27	0 ~ 70	3.3	
SFP-CWDM-30-yy-DM	1.25G	1270 ~ 1610nm	SMF	LC	30 dB	+5 ~ 0	<-30	0 ~ 70	3.3	
SFP-2.5G-CWDM-20-yy-DM	125M ~2.67G	1270 ~ 1610nm	SMF	LC	20 dB	+4 ~ -1	<-21	0 ~ 70	3.3	
SFP-2.5G-CWDM-26-yy-DM	125M ~2.67G	1270 ~ 1610nm	SMF	LC	26 dB	+3 ~ -2	<-28	0 ~ 70	3.3	
SFP-2.5G-CWDM-28-yy-DM	125M ~2.67G	1270 ~ 1610nm	SMF	LC	28 dB	+5 ~ 0	<-28	0 ~ 70	3.3	
SFP-2.5G-CWDM-30-yy-DM	125M ~2.67G	1270 ~ 1610nm	SMF	LC	30 dB	+5 ~ 0	<-30	0 ~ 70	3.3	

Remark : "yy" = CWDM Wavelength

yy : 27 = 1270nm, yy : 29 = 1290nm, yy : 31 = 1310nm
yy : 33 = 1330nm, yy : 35 = 1350nm, yy : 39 = 1390nm, yy : 41 = 1410nm, yy : 43 = 1430nm, yy : 45 = 1450nm, yy : 47 = 1470nm
yy : 49 = 1490nm, yy : 51 = 1510nm, yy : 53 = 1530nm, yy : 55 = 1550nm, yy : 57 = 1570nm, yy : 59 = 1590nm, yy : 61 = 1610nm

Cell Technology

Product Data Sheet

10Gbps XENPAK

Model No.	Data Rate	Wavelength/ Light Source	Media Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Notes
XENPAK-SR	10G	850nm	SC	300m	-1~-7.5	-1~-9.9	0 ~ 70	10Gbase-SR
XENPAK-LR	10G	1310mn	SC	10km	0.5~-8.5	0.5~-14.4	0 ~ 70	10Gbase-LR
XENPAK-ER	10G	1550nm	SC	40km	4~-4.8	-1~-15.8	0 ~ 70	10Gbase-ER

10Gbps XFP

Model No.	Data Rate	Wavelength/ Light Source	Media Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Notes
XFP-SR	10G	850nm	LC	300m	-1~-7.1	<-9.9	0 ~ 70	10Gbase-S
XFP-LR	10G	1310nm	LC	10km	0.5~-6	<-14.4	0 ~ 70	10Gbase-L
XFP-ER	10G	1550nm	LC	40km	2~-1	<-16	0 ~ 70	10Gbase-E
XFP-ZR	10G	1550nm	LC	80km	0~+4	<-23	0 ~ 70	10Gbase-Z
XFP-EZR	10G	1550nm	LC	110km	+1~+4	<-24	0 ~ 70	10Gbase-EZ

10Gbps Single Fiber XFP-BWDM (BX)

Model No.	Data Rate	Wavelength/ Light Source	Media Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Notes
XFP-10GBX-10-33	10G	Tx1330/Rx1270	LC	10km	-5~0	<-14	0 ~ 70	BWDM (10GbE)
XFP-10GBX-10-27	10G	Rx1330/Tx1270	LC	10km	-5~0	<-14	0 ~ 70	BWDM (10GbE)
XFP-10GBX-20-33	10G	Tx1330/Rx1270	LC	20km	-2~3	<-14	0 ~ 70	BWDM (10GbE)
XFP-10GBX-20-27	10G	Rx1330/Tx1270	LC	20km	-2~3	<-14	0 ~ 70	BWDM (10GbE)
XFP-10GBX-40-33	10G	Tx1330/Rx1270	LC	40km	1~5	<-15	0 ~ 70	BWDM (10GbE)
XFP-10GBX-40-27	10G	Rx1330/Tx1270	LC	40km	1~5	<-15	0 ~ 70	BWDM (10GbE)

10Gbps SFP+

Model No.	Data Rate	Wavelength/ Light Source	Media Type	Reach	TX Power (dBm)	RX Sens. (dBm)	Temp. (°C)	Notes
SFP+SR	10G	850nm	LC	300m	-1~-7.1	<-9.9	-10 ~ 70	10Gbase-S
SFP+LR	10G	1310nm	LC	10km	-0.5~-6	<-10.3	-10 ~ 70	10Gbase-L
SFP+ER	10G	1550nm	LC	40km	-2.1	<-14.1	-10 ~ 70	10Gbase-E

Cell NetsVision iCMS-SWG Specification

Cell intelligent Cell Management System for Cell Network Access Products (iCMS-SWG) is the complete, comprehensive and centralized Element Management System (EMS) platform for operation, administration and management (OAM) of Cell managed switch products in highly performance and scalability purpose. This EMS provides mainly for network visualization, fault monitoring, performance, configuration and security managements for service providers. With Cell iCMS-SWG centralized management, all network access products such as Ethernet switches and CPEs can be under network service and remote monitored at the NOC for system monitoring, devices configuration, database management, fault and alarm management and optical link performance monitoring. Please refer to Cell NetsVision iCMS-SWG datasheet for specification and ordering information.

About Cell Technology

Cell Technology headquartered at Hong Kong SAR, a network & security technology provider specializes in design, develop and deliver innovative and intelligent IP packet processing platform into software and hardware appliances. Cell product solutions including Cell IPS, Janus, TMS, NetsVision and Network Access address the business needs that optimize the IP network performance, secure the network security and resiliency, and manage the quality of IP services. For more information, please visit www.cell-technology.net.