

▶ SFP with Status Indicators

DESCRIPTION



The SFP transceiver module series from Radiant offers high performance and cost-effective modules for optical communication applications specified for single mode fiber, multimode units are also available.

The transmitter section designed for single mode fiber using a DFB laser diode and full IEC825 and CDRH class I eye safety. The receiver section of the SFP uses a hermetic packaged front end receiver (InGaAs PIN and preamplifier). The capacitor and LPF are able to pass a signal from 5 Mbps to 1270 Mbps without significant distortion or performance penalty.

The optical transceiver contains an EEPROM which provides information to sophisticated identification information that describes the transceivers capabilities, standard interfaces and other information. Units are tested and guaranteed to work with your existing equipment.

The transceiver is intended for single-mode fiber, operates at a nominal wavelength of 1310 or 1550 nm and CWDM versions are available. Each module consists of a transmitter optical subassembly, a receiver optical subassembly and an electrical sub-assembly. All of them are housed in a metal package and the combination produces a reliable component.

The module is a duplex LC connector transceiver.



**Radiant
Communications
Corporation**

APPLICATION



- Gigabit Ethernet Links –Routers and Switches
- SONET and ATM
- Fibre Channel Links at 1.06 Gbps
- High Speed Backplane Interconnects
- Switched Backbones

FEATURES



- Transceiver unit with independent DFB Laser diode transmitter and InGaAs PIN photodiode receiver
- 100 MB and 1.25 GB versions available
- Cisco compatible and Standard units available
- Duplex LC Connector
- Digital Diagnostic monitoring
- Meets SFP MSA and SFF-8472 specifications
- Qualified to meet the intent of Bellcore reliability
- Single +3.3V Power Supply
- Hot-pluggable
- Metal enclosure for lower EMI

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SPECIFICATIONS

Transmitter Electrical to Optical

Center Wavelength:	1310 nm 1280—1335 nm Min-Max
Spectral Width: (-20 dB)	1 nm
Side Mode Suppression Ratio:	30 dB minimum
Average Optical Output Power:	-3 dBm minimum to +3 dBm Max
Extinction Ratio:	8.2 dB minimum
Power Supply Current:	70 mA typical 180 mA maximum
Transmitter Enable Voltage:	0 to 0.8 V
Transmitter Disable Voltage:	2.0 V minimum
Data Inputs Voltage:	300 mV minimum to 1600 mV max
Optical Rise/Fall Time	0.26 ns

General Characteristics

Connector Type:	Duplex LC
Power Supply Voltage:	+3.3 V
Operating Case Temperature:	0° to +70° C
Storage Temperature:	-40° to +85° C
Size:	.528" W x 2.205" D x .516" H

Receiver Optical to Electrical

Operating Wavelength:	1260 to 1610 nm
Sensitivity:	-25 dBm typical
Saturation:	-3 dBm minimum
LOS Asserted:	-40 dBm
LOS De-Asserted:	-22 dBm maximum
LOS Hysteresis:	1.5 dB
Power Supply Current:	80 mA typical 170 mA maximum
Data Outputs Voltage:	800 mV typical 400 mV minimum 1000 mV maximum
LOS Low Voltage:	0.8 V maximum
LOS High Voltage:	2.0 V minimum

ORDERING INFORMATION

PART NUMBER	DESCRIPTION	ATTENUATION	MAX DISTANCES
SFP-850	SFP Module, 100 MB, 2 Fiber, multimode 850 nm	7 dB	2 km
SFP-1310	SFP Module, 100 MB, 2 Fiber, Singlemode 1310 nm	5 dB	10 km
SFP-1550	SFP Module, 100 MB, 2 Fiber, Singlemode 1510 nm	24 dB	100 km
SFP-CW-1470	SFP Module, 100 MB for CWDM, Singlemode 1470 nm	24 dB	100 km
SFP-CW-1490	SFP Module, 100 MB for CWDM, Singlemode 1490 nm	24 dB	100 km
SFP-CW-1510	SFP Module, 100 MB for CWDM, Singlemode 1510 nm	24 dB	100 km
SFP-CW-1530	SFP Module, 100 MB for CWDM, Singlemode 1530 nm	24 dB	100 km
SFP-CW-1550	SFP Module, 100 MB for CWDM, Singlemode 1550 nm	24 dB	100 km
SFP-CW-1570	SFP Module, 100 MB for CWDM, Singlemode 1570 nm	24 dB	100 km
SFP-CW-1590	SFP Module, 100 MB for CWDM, Singlemode 1590 nm	24 dB	100 km
SFP-CW-1610	SFP Module, 100 MB for CWDM, Singlemode 1610 nm	24 dB	100 km
SFPG-850	SFP Module, 1.25 GB, 2 Fiber, multimode 850 nm	7 dB	2 km
SFPG-1310	SFP Module, 1.25 GB, 2 Fiber, Singlemode 1310 nm	5 dB	10 km
SFPG-1550	SFP Module, 1.25 GB, 2 Fiber, Singlemode 1510 nm	24 dB	100 km
SFP-GCW-1470	SFP Module, 1.25 GB for CWDM, Singlemode 1470 nm	24 dB	100 km
SFP-GCW-1490	SFP Module, 1.25 GB for CWDM, Singlemode 1490 nm	24 dB	100 km
SFP-GCW-1510	SFP Module, 1.25 GB for CWDM, Singlemode 1510 nm	24 dB	100 km
SFP-GCW-1530	SFP Module, 1.25 GB for CWDM, Singlemode 1530 nm	24 dB	100 km
SFP-GCW-1550	SFP Module, 1.25 GB for CWDM, Singlemode 1550 nm	24 dB	100 km
SFP-GCW-1570	SFP Module, 1.25 GB for CWDM, Singlemode 1570 nm	24 dB	100 km
SFP-GCW-1590	SFP Module, 1.25 GB for CWDM, Singlemode 1590 nm	24 dB	100 km
SFP-GCW-1610	SFP Module, 1.25 GB for CWDM, Singlemode 1610 nm	24 dB	100 km

Notes:

MUST Add to model number -CS for Cisco Compatible Units IE SFPG-1550-CS for Cisco Version.

