

Features

- Transceiver unit with independent DWDM DFB Laser diode transmitter & APD photodiode receiver
- Compliant with DWDM SFP MSA
- SFF-8472 with duplex LC receptacle
- Hot-pluggable
- Metal enclosure for lower EMI
- 3.3V Single power supply
- 100GHz ITU Grid, C Band
- Wavelength controlled within $\pm 0.1\text{nm}$ over life and temperature
- I Digital diagnostic monitoring
- 80 km with 9/125 μm single mode fiber (SMF) of maximum interconnect distances
- Commercial case operating temperature: 0°C to +70°C



Applications

- C Band DWDM networks
- SONET/SDH networks
- Fiber channel
- Gigabit Ethernet

1. Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Storage Temperature	Ts	-40		85	°C
Relative Humidity	RH	5		95	%
Power Supply Voltage	VCC	-0.5		4	V
Signal Input Voltage		-0.3		Vcc+0.3	V
Receiver Damage Threshold		+5			dBm

2. Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Case Operating Temperature	Tcase	0		70	°C	
Power Supply Voltage	VCC	3.13	3.3	3.47	V	

Power Supply Current	ICC			500	mA	
Power Supply Noise Rejection				100	mVp-p	100Hz to 1MHz
Data Rate			1250/1250		Mbps	TX Rate/RX Rate
Transmission Distance				80	KM	
Coupled Fiber	Single mode fiber					9/125um SMF

3. Specification of Transmitter

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Center Wavelength Spacing			100		GHz	
Center Wavelength	λ	X-100	X	X+100	pm	1
Average Output Power	POUT	0		4	dBm	
Extinction Ratio	ER	9			dB	
Side Mode Suppression Ratio	SMSR	30			dB	
Spectrum Bandwidth (-20dB)	σ			0.3	nm	
Transmitter OFF Output Power	POff			-45	dBm	
Differential Line Input Impedance	RIN	90	100	110	Ohm	
Output Eye Mask	Compliant with IEEE 802.3 Z					2

Notes:

1. X = specified ITU center wavelength.
2. Transmitter eye mask definition.

4. Specification of Receiver

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Input Optical Wavelength	λ_{IN}	1270		1610	nm	APD
Receiver Sensitivity	PIN			-26	dBm	1
Input Saturation Power (Overload)	PSAT	-3			dBm	
Los Of Signal Assert	PA			-26	dBm	
Los Of Signal De-assert	PD	-38			dBm	2
LOS Hysteresis	PA-PD	0.5	2	6	dB	

Notes:

1. Measured with Light source 1550nm, ER=9dB; BER = 10^{-12} @PRBS=2²³-1 NRZ
2. When LOS de-asserted, the RX data+/- output is High-level (fixed)

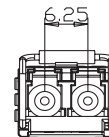
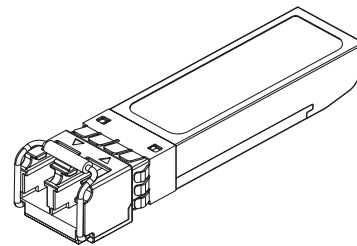
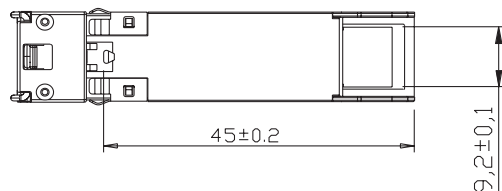
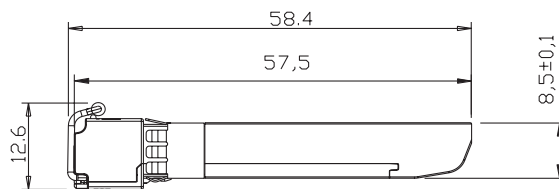
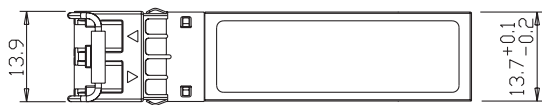
5. Electrical Interface Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Total Supply Current	ICC			A	mA	1
Transmitter Disable Input-High	VDISH	2		V _{cc} +0.3	V	
Transmitter Disable Input-Low	VDISL	0		0.8	V	
Transmitter Fault Input-High	VTxFH	2		V _{cc} +0.3	V	
Transmitter Fault Input-Low	VTxFL	0		0.8	V	
Receiver						
Total Supply Current	ICC			B	mA	1
LOSS Output Voltage-High	VLOSH	2		V _{cc} +0.3	V	LVTTL
LOSS Output Voltage-Low	VLOSL	0		0.8	V	

Notes:

1. A (TX) + B (RX) = 500mA (Does not include termination circuit)

6. Mechanical Diagram



Units in mm

Note: External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.

7. Ordering Information

OEM	Part Number	OEM	Part Number
Adtran	1442707G41-A	Cisco	DWDM-SFP-1559.79-C1
Adtran	1442707G42-A	Cisco	DWDM-SFP-1555.75-C1
Adtran	1442707G43-A	Cisco	DWDM-SFP-1556.56-C1
Adtran	1442707G44-A	Cisco	DWDM-SFP-1557.36-C1
Adtran	1442707G1-A	Cisco	DWDM-SFP-1560.61-C1
Adtran	1442707G2-A	Cisco	GES-D24-80-CSC
Adtran	1442707G3-A	Cisco	DWDM-SFP-1558.17-C1
Adtran	1442707G4-A	Cisco	DWDM-SFP-1558.98-C1
Adtran	1442707G5-A	Cisco	GES-D23-80-CSC
Adtran	1442707G6-A	Cisco	GES-D21-80-CSC
Adtran	1442707G7-A	Cisco	DWDM-SFP-1537.40-C1
Adtran	1442707G8-A	Cisco	DWDM-SFP-1559.79-C1
Adtran	1442707G9-A	Cisco	DWDM-SFP-2877-A
Adtran	1442707G10-A	Juniper	SFP-1GE-DW17-A
Adtran	1442707G11-A	Juniper	SFP-1GE-DW18-A
Adtran	1442707G12-A	Juniper	SFP-1GE-DW19-A
Adtran	1442707G13-A	Juniper	SFP-1GE-DW20-A
Adtran	1442707G14-A	Juniper	SFP-1GE-DW21-A
Adtran	1442707G15-A	Juniper	SFP-1GE-DW22-A
Adtran	1442707G16-A	Juniper	SFP-1GE-DW23-A
Adtran	1442707G17-A	Juniper	SFP-1GE-DW24-A
Adtran	1442707G18-A	Juniper	SFP-1GE-DW25-A
Adtran	1442707G19-A	Juniper	SFP-1GE-DW26-A
Adtran	1442707G20-A	Juniper	SFP-1GE-DW27-A
Adtran	1442707G21-A	Juniper	SFP-1GE-DW28-A
Adtran	1442707G22-A	Juniper	SFP-1GE-DW29-A
Adtran	1442707G23-A	Juniper	SFP-1GE-DW30-A
Adtran	1442707G24-A	Juniper	SFP-1GE-DW31-A
Adtran	1442707G25-A	Juniper	SFP-1GE-DW32-A
Adtran	1442707G26-A	Juniper	SFP-1GE-DW33-A
Adtran	1442707G27-A	Juniper	SFP-1GE-DW34-A
Adtran	1442707G28-A	Juniper	SFP-1GE-DW35-A
Adtran	1442707G29-A	Juniper	SFP-1GE-DW36-A
Adtran	1442707G30-A	Juniper	SFP-1GE-DW37-A
Adtran	1442707G31-A	Juniper	SFP-1GE-DW38-A

Adtran	1442707G32-A	Juniper	SFP-1GE-DW39-A
Adtran	1442707G33-A	Juniper	SFP-1GE-DW40-A
Adtran	1442707G34-A	Juniper	SFP-1GE-DW41-A
Adtran	1442707G35-A	Juniper	SFP-1GE-DW42-A
Adtran	1442707G36-A	Juniper	SFP-1GE-DW43-A
Adtran	1442707G37-A	Juniper	SFP-1GE-DW44-A
Adtran	1442707G38-A	Juniper	SFP-1GE-DW45-A
Adtran	1442707G39-A	Juniper	SFP-1GE-DW46-A
Adtran	1442707G40-A	Juniper	SFP-1GE-DW47-A
Adtran	1442707G45-A	Juniper	SFP-1GE-DW48-A
Ciena	XCVR-080W17-A	Juniper	SFP-1GE-DW49-A
Ciena	XCVR-080W18-A	Juniper	SFP-1GE-DW50-A
Ciena	XCVR-080W19-A	Juniper	SFP-1GE-DW51-A
Ciena	XCVR-080W20-A	Juniper	SFP-1GE-DW52-A
Ciena	XCVR-080W21-A	Juniper	SFP-1GE-DW53-A
Ciena	XCVR-080W22-A	Juniper	SFP-1GE-DW54-A
Ciena	XCVR-080W23-A	Juniper	SFP-1GE-DW55-A
Ciena	XCVR-080W24-A	Juniper	SFP-1GE-DW56-A
Ciena	XCVR-080W25-A	Juniper	SFP-1GE-DW57-A
Ciena	XCVR-080W26-A	Juniper	SFP-1GE-DW58-A
Ciena	XCVR-080W27-A	Juniper	SFP-1GE-DW59-A
Ciena	XCVR-080W28-A	Juniper	SFP-1GE-DW60-A
Ciena	XCVR-080W29-A	Juniper	SFP-1GE-DW61-A
Ciena	XCVR-080W30-A	MSA Generic	AN-DWDM-SFP-80-6386
Ciena	XCVR-080W31-A	MSA Generic	AN-DWDM-SFP-80-6305
Ciena	XCVR-080W32-A	MSA Generic	AN-DWDM-SFP-80-6223
Ciena	XCVR-080W33-A	MSA Generic	AN-DWDM-SFP-80-6141
Ciena	XCVR-080W34-A	MSA Generic	AN-DWDM-SFP-80-6061
Ciena	XCVR-080W35-A	MSA Generic	AN-DWDM-SFP-80-5979
Ciena	XCVR-080W36-A	MSA Generic	AN-DWDM-SFP-80-5898
Ciena	XCVR-080W37-A	MSA Generic	AN-DWDM-SFP-80-5817
Ciena	XCVR-080W38-A	MSA Generic	AN-DWDM-SFP-80-5736
Ciena	XCVR-080W39-A	MSA Generic	AN-DWDM-SFP-80-5655
Ciena	XCVR-080W40-A	MSA Generic	AN-DWDM-SFP-80-5575
Ciena	XCVR-080W41-A	MSA Generic	AN-DWDM-SFP-80-5494
Ciena	XCVR-080W42-A	MSA Generic	AN-DWDM-SFP-80-5413
Ciena	XCVR-080W43-A	MSA Generic	AN-DWDM-SFP-80-5332

Ciena	XCVR-080W44-A	MSA Generic	AN-DWDM-SFP-80-5252
Ciena	XCVR-080W45-A	MSA Generic	AN-DWDM-SFP-80-5172
Ciena	XCVR-080W46-A	MSA Generic	AN-DWDM-SFP-80-5092
Ciena	XCVR-080W47-A	MSA Generic	AN-DWDM-SFP-80-5012
Ciena	XCVR-080W48-A	MSA Generic	AN-DWDM-SFP-80-4931
Ciena	XCVR-080W49-A	MSA Generic	AN-DWDM-SFP-80-4851
Ciena	XCVR-080W50-A	MSA Generic	AN-DWDM-SFP-80-4772
Ciena	XCVR-080W51-A	MSA Generic	AN-DWDM-SFP-80-4692
Ciena	XCVR-080W52-A	MSA Generic	AN-DWDM-SFP-80-4612
Ciena	XCVR-080W53-A	MSA Generic	AN-DWDM-SFP-80-4532
Ciena	XCVR-080W54-A	MSA Generic	AN-DWDM-SFP-80-4453
Ciena	XCVR-080W55-A	MSA Generic	AN-DWDM-SFP-80-4373
Ciena	XCVR-080W56-A	MSA Generic	AN-DWDM-SFP-80-4294
Ciena	XCVR-080W57-A	MSA Generic	AN-DWDM-SFP-80-4214
Ciena	XCVR-080W58-A	MSA Generic	AN-DWDM-SFP-80-4134
Ciena	XCVR-080W59-A	MSA Generic	AN-DWDM-SFP-80-4056
Ciena	XCVR-080W60-A	MSA Generic	AN-DWDM-SFP-80-3977
Ciena	XCVR-080W61-A	MSA Generic	AN-DWDM-SFP-80-3898
Ciena	GES-D29-80I-CIE	MSA Generic	AN-DWDM-SFP-80-3819
Ciena	GES-D23-80I-CIE	MSA Generic	AN-DWDM-SFP-80-3739
Ciena	GES-D24-80I-CIE	MSA Generic	AN-DWDM-SFP-80-3661
Ciena	XCVR-080W23-C1	MSA Generic	AN-DWDM-SFP-80-3582
Cisco	DWDM-SFP-6386-A	MSA Generic	AN-DWDM-SFP-80-3504
Cisco	DWDM-SFP-6305-A	MSA Generic	AN-DWDM-SFP-80-3346
Cisco	DWDM-SFP-6223-A	MSA Generic	AN-DWDM-SFP-80-3268
Cisco	DWDM-SFP-6141-A	MSA Generic	AN-DWDM-SFP-80-3190
Cisco	DWDM-SFP-6061-A	MSA Generic	AN-DWDM-SFP-80-3112
Cisco	DWDM-SFP-5979-A	MSA Generic	AN-DWDM-SFP-80-3033
Cisco	DWDM-SFP-5898-A	MSA Generic	AN-DWDM-SFP-80-2955
Cisco	DWDM-SFP-5817-A	MSA Generic	AN-DWDM-SFP-80-2877
Cisco	DWDM-SFP-5736-A	MSA Generic	AN-DWDM-SFP-80-3425
Cisco	DWDM-SFP-5655-A	OnePort	OP-DWDM-SFP-80-6386
Cisco	DWDM-SFP-5575-A	OnePort	OP-DWDM-SFP-80-6305
Cisco	DWDM-SFP-5494-A	OnePort	OP-DWDM-SFP-80-6223
Cisco	DWDM-SFP-5413-A	OnePort	OP-DWDM-SFP-80-6141
Cisco	DWDM-SFP-5332-A	OnePort	OP-DWDM-SFP-80-6061
Cisco	DWDM-SFP-5252-A	OnePort	OP-DWDM-SFP-80-5979

Cisco	DWDM-SFP-5172-A	OnePort	OP-DWDM-SFP-80-5898
Cisco	DWDM-SFP-5092-A	OnePort	OP-DWDM-SFP-80-5817
Cisco	DWDM-SFP-5012-A	OnePort	OP-DWDM-SFP-80-5736
Cisco	DWDM-SFP-4931-A	OnePort	OP-DWDM-SFP-80-5655
Cisco	DWDM-SFP-4851-A	OnePort	OP-DWDM-SFP-80-5575
Cisco	DWDM-SFP-4772-A	OnePort	OP-DWDM-SFP-80-5494
Cisco	DWDM-SFP-4692-A	OnePort	OP-DWDM-SFP-80-5413
Cisco	DWDM-SFP-4612-A	OnePort	OP-DWDM-SFP-80-5332
Cisco	DWDM-SFP-4532-A	OnePort	OP-DWDM-SFP-80-5252
Cisco	DWDM-SFP-4453-A	OnePort	OP-DWDM-SFP-80-5172
Cisco	DWDM-SFP-4373-A	OnePort	OP-DWDM-SFP-80-5092
Cisco	DWDM-SFP-4294-A	OnePort	OP-DWDM-SFP-80-5012
Cisco	DWDM-SFP-4214-A	OnePort	OP-DWDM-SFP-80-4931
Cisco	DWDM-SFP-4134-A	OnePort	OP-DWDM-SFP-80-4851
Cisco	DWDM-SFP-4056-A	OnePort	OP-DWDM-SFP-80-4772
Cisco	DWDM-SFP-3977-A	OnePort	OP-DWDM-SFP-80-4692
Cisco	DWDM-SFP-3898-A	OnePort	OP-DWDM-SFP-80-4612
Cisco	DWDM-SFP-3819-A	OnePort	OP-DWDM-SFP-80-4532
Cisco	DWDM-SFP-3739-A	OnePort	OP-DWDM-SFP-80-4453
Cisco	DWDM-SFP-3661-A	OnePort	OP-DWDM-SFP-80-4373
Cisco	DWDM-SFP-3582-A	OnePort	OP-DWDM-SFP-80-4294
Cisco	DWDM-SFP-3504-A	OnePort	OP-DWDM-SFP-80-4214
Cisco	DWDM-SFP-3425-A	OnePort	OP-DWDM-SFP-80-4134
Cisco	DWDM-SFP-3346-A	OnePort	OP-DWDM-SFP-80-4056
Cisco	DWDM-SFP-3268-A	OnePort	OP-DWDM-SFP-80-3977
Cisco	DWDM-SFP-3190-A	OnePort	OP-DWDM-SFP-80-3898
Cisco	DWDM-SFP-3112-A	OnePort	OP-DWDM-SFP-80-3819
Cisco	DWDM-SFP-3033-A	OnePort	OP-DWDM-SFP-80-3739
Cisco	DWDM-SFP-2955-A	OnePort	OP-DWDM-SFP-80-3661
Cisco	DWDM-SFP-1540.56-C1	OnePort	OP-DWDM-SFP-80-3582
Cisco	DWDM-SFP-1541.35-C1	OnePort	OP-DWDM-SFP-80-3504
Cisco	DWDM-SFP-1545.32-C1	OnePort	OP-DWDM-SFP-80-3346
Cisco	DWDM-SFP-1546.12-C1	OnePort	OP-DWDM-SFP-80-3268
Cisco	DWDM-SFP-1547.72-C1	OnePort	OP-DWDM-SFP-80-3190
Cisco	DWDM-SFP-1548.51-C1	OnePort	OP-DWDM-SFP-80-3112
Cisco	DWDM-SFP-1549.32-C1	OnePort	OP-DWDM-SFP-80-3033
Cisco	DWDM-SFP-1550.12-C1	OnePort	OP-DWDM-SFP-80-2955

Cisco	DWDM-SFP-1550.92-C1	OnePort	OP-DWDM-SFP-80-2877
Cisco	DWDM-SFP-1554.94-C1	OnePort	OP-DWDM-SFP-80-3425
Cisco	DWDM-SFP-1537.40-C1		

8. Contact Information

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