

Features

- Up to 11.1Gbps Data Links
- Up to 300m transmission on OM3 (50/125μ) MMF, up to 400m on OM4 (50/125μ) MMF
- Power dissipation < 1W
- VSCSEL laser and PIN receiver
- Metal enclosure, for lower EMI
- 2-wire interface with integrated Digital Diagnostic monitoring
- Hot-pluggable SFP+ footprint
- Specifications compliant with SFF 8472
- Compliant with SFP+ MSA with LC connector
- Single 3.3V power supply
- Industrial case operating temperature range: -40°C to +85°C



Applications

- 10GBASE-SR/SW & 10G Ethernet

Standard

- Compliant to SFF-8431
- Compliant to 802.3ae 10GBASE-SR
- RoHS Compliant.

1. Absolute Maximum Ratings

Any stress beyond the maximum ratings can result in permanent damage. The device specifications are guaranteed only under the recommended operating conditions.

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

2. Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Case Operating Temperature	Tcase	-40	-	85	°C	Industrial
Power Supply Voltage	VCC	3.14	3.3	3.47	V	
Power Supply Current	ICC	-		300	mA	
Data Rate	BR		10.3125		Gbps	
Transmission Distance	TD		-	300	m	
Coupled fiber	Multi-mode fiber					9/125um SMF

3. Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Note
Transmitter						
Average Launched Power	Pout	-6		-0.5	dBm	1
Extinction Ratio	ER	3.0			dB	
Optical Wavelength	λ	840	850	860	nm	
RIN	RIN			-128	dB/Hz	
Output Eye Mask	Compliant with IEEE 802.3ae					
Receiver						
Input Optical Wavelength	λ_c	1270		1610	nm	
Receiver Sensitivity	Psen			-10	dBm	2
Input Saturation Power (Overload)	Psat	0.5			dBm	
LOS Assert	LOSA	-30			dBm	
LOS De-assert	LOSD			-12	dBm	
LOS Detect Hysteresis	PHYS	0.5			dB	

Notes:

1. Launched power (avg.) is power coupled into a single mode fiber with master connector.
2. Measured with conformance test signal for BER = 10^{-12} .@10.3125Gbps, PRBS=2³¹-1,NRZ

4. Electrical Characteristics

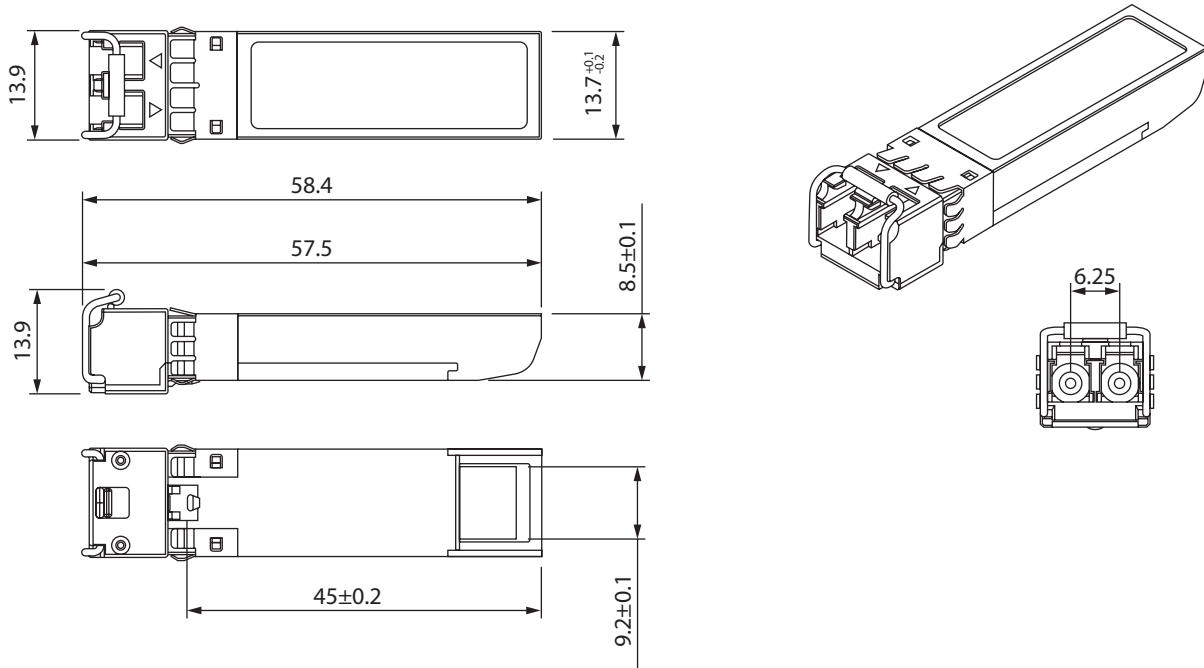
Parameter	Symbol	Min	Typ	Max	Unit	Notes
Supply Voltage	Vcc	3.14	3.3	3.46	V	
Supply Current	Icc			300	mA	

Transmitter						
Input differential impedance	Rin		100		Ω	1
Single ended data input swing	Vin,pp	180		700	mV	
Transmit Disable Voltage	VD	Vcc-1.3		Vcc	V	
Transmit Enable Voltage	VEN	Vee		Vee+ 0.8	V	2
Transmit Disable Assert Time				10	us	
Receiver						
Differential data output swing	Vout,pp	300		850	mV	3
Data output rise time	tr	28			ps	4
Data output fall time	tf	28			ps	4
LOS Fault	VLOS fault	Vcc-1.3		VccHOST	V	5
LOS Normal	VLOS norm	Vee		Vee+0.8	V	5
Power Supply Rejection	PSR	100			mVpp	6

Notes:

1. Connected directly to TX data input pins. AC coupled thereafter.
2. Or open circuit.
3. Into 100 ohms differential termination.
4. 20 – 80 %.
5. Loss Of Signal is LVTTTL. Logic 0 indicates normal operation; logic 1 indicates no signal detected. Receiver sensitivity is compliant with power supply sinusoidal modulation of 20 Hz to 1.5 MHz up to specified value applied through the recommended power supply filtering network.

5. Mechanical Diagram



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.

6. Ordering Information

OEM	Part Number	OEM	Part Number
Accedian	7SM-400-A	Dell	407-BBEF-A
Accedian	7SM-500-A	Enterasys	10GBASE-SR-SFPP-A
Adtran	1700485F1-A	Extreme	10301-A
Adtran	1442401G1-A	Extreme	10301-C1
Adtran	1442401G1-C1	Extreme	10GESFPP-SR-EXN
Adva	1061701855-02-A	F5 Networks	F5-UPG-SFP+-R-A
Alcatel	3FE63264AA-A	F5 Networks	FS-TRAN-SFP+SR-A
Alcatel	3FE63264AA-C1	Finisar	FTLX8574D3BCV-A
Alcatel	3HE04824AA-A	Finisar	FTLX8571D3BCV-A
Alcatel	1AB410040001-A	Finisar	FTLX8573D3BTL-A
Alcatel	3HE0482AA-A	Fortinet	FG-TRAN-SFP+SR-A
Alcatel	SFP-10G-GIG-SR-A	Fortinet	FN-TRAN-SFP+SR-A
Alcatel	3HE11023AA-A	Fortinet	FN-TRAN-SFP+SR-C1
Alcatel	3HE04824AA-C1	Gigimon	SFP-532-C1
Allied Telesis	SP10SR-A	HP	J9150A-A

Arista	SFP-10G-SR-AN-A	HP	J9150D-A
Arista	SFP-10G-SRL-AN-A	HP	JW091A-A
Avago	AFBR-709SMZ-A	Huawei	OMXD30000-A
Avaya	AA1403015-E6-A	Huawei	34060494-A
Avaya	AA1403015-E6-C1	Intel	E10GSFPSR-A
Brocade	XBR-000148-A	Intel	E10GSFPSR-C1
Brocade	XBR-000180-A	Intel	10GESFPP-SR-INT
Brocade	10G-SFPP-SR-A	Juniper	SRX-SFP-10GE-SR-A
Brocade	10G-SFPP-USR-A	Juniper	SFP-10GE-SR-A
Brocade	10G-SFPP-SR-C1	Juniper	SFP-10GE-SR-C1
Calix	100-01514-A	Juniper	QFX-SFP-10GE-SR-A
Calix	100-01515-A	Juniper	SFPP-10GE-SR-A
Calix	100-01515-C1	Juniper	EX-SFP-10GE-SR-A
Calix	10GESFPP-SR-CLX	Juniper	QFX-SFP-10GE-USR-A
Ciena	XCVR-S00Z85-A	Juniper	10GESFPP-SR-JUN
Ciena	160-9116-900-A	Juniper	EX-SFP-10GE-SR-C1
Ciena	XCVR-S00Z85-C1	Mellanox	MFM1T02A-SR-A
Cisco	SFP-10G-SR-A	Mikrotik	S+85DLC03D-C1
Cisco	SFP-10G-SR-C1	Mikrotik	SFP-10GD-SX-A
Cisco	SFP-10G-SR-S-A	MSA	AN-SFP10G-SR-I
Cisco	XCVR-S00Z85-C1	MSA	AN-SFP10G-SR
Cisco	10GESFPP-SR-CSC	MSA Champion ONE	10GSFP+E-SR
Cisco	SFP-10G-SR-S-C1	MSA Champion ONE	10GSFP+E-SR-H
Dell	407-BCBN-A	MSA Champion ONE	10GSFP+E-SR-TAA
Dell	407-BCBN-C1	MSA Champion ONE	10GSFP+E-SR-H-TAA
Dell	407-BBZM-A	NetAPP	X6599A-R6-C-C1
Dell	331-5311-A	Nokia	473842A-A
Dell	407-BBEF-C1	Nokia	3AL82027AA-A
Dell	407-BBOU-C1	OnePort	OP-SFP10G-SR
Dell	407-BCDU-C1	PaloAlto	PAN-SFP-PLUS-SR-A
Dell	407-BCSR-C1	PaloAlto	10GESFPP-SR-PAN
Dell	10GESFPP-SR-DLL	PaloAlto	PAN-SFP-PLUS-SR-C1
Dell	407-BBOU-A	Samsung	SFG-AFE000DAVZ-A

7. Contact Information

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