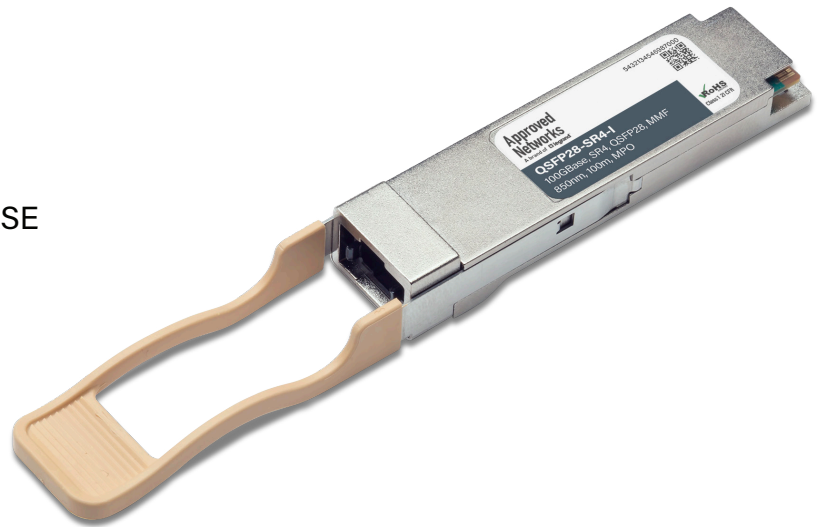


Features

- Compliant with IEEE Std 802.3bm, 100G BASE SR4 Ethernet 40G BASE SR4 Ethernet
- Compliant with QSFP28 MSA
- Management interface specifications per SFF-8636
- Single MPO connector receptacle
- 4 channels 850nm VCSEL array
- 4 channels PIN photo detector array
- Up to 103.1Gb/s data rates
- Single +3.3V power supply
- Class 1 laser safety certified
- Industrial operating temperature: -40°C to +85°C



- Up to 70m on OM3 MMF and 100m on OM4 MMF
- RoHS Compliant

Applications

- 100G BASE-SR4 Ethernet
- 40G BASE-SR4 Ethernet
- Data Center

1. Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these or any other conditions in excess of those given in the operational sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Max	Units	
Storage Temperature	TS	-40	85	°C
Relative Humidity	RH	5	95	%
Supply Voltage	VCC	-0.5	4.0	V

2. Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Units
Operating Case Temperature	TC	-40	25	85	°C
Supply Voltage	VCC	3.135	3.3	3.465	V
Data Rate PER Channel	-	-	25.78125	-	Gb/s

3. Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Units	Notes
Module Supply Current	I _{cc}	-	-	750	mA	-
Power Dissipation	PD	-	-	2.5	W	-
Transmitter						
Input Differential Impedance	Z _{IN}	-	100	-	Ω	-
Differential Data Input Swing	V _{IN} , P-P	180	-	900	mVP-P	-
Receiver						
Output Differential Impedance	Z _O	-	100	-	Ω	-
Differential Data Output Swing	V _{OUT} , P-P	300	-	850	mVP-P	1
Transition Time (20% to 80%)	T _r ,T _f	12			ps	

Notes:

- Internally AC coupled, but requires a external 100Ω differential load termination.

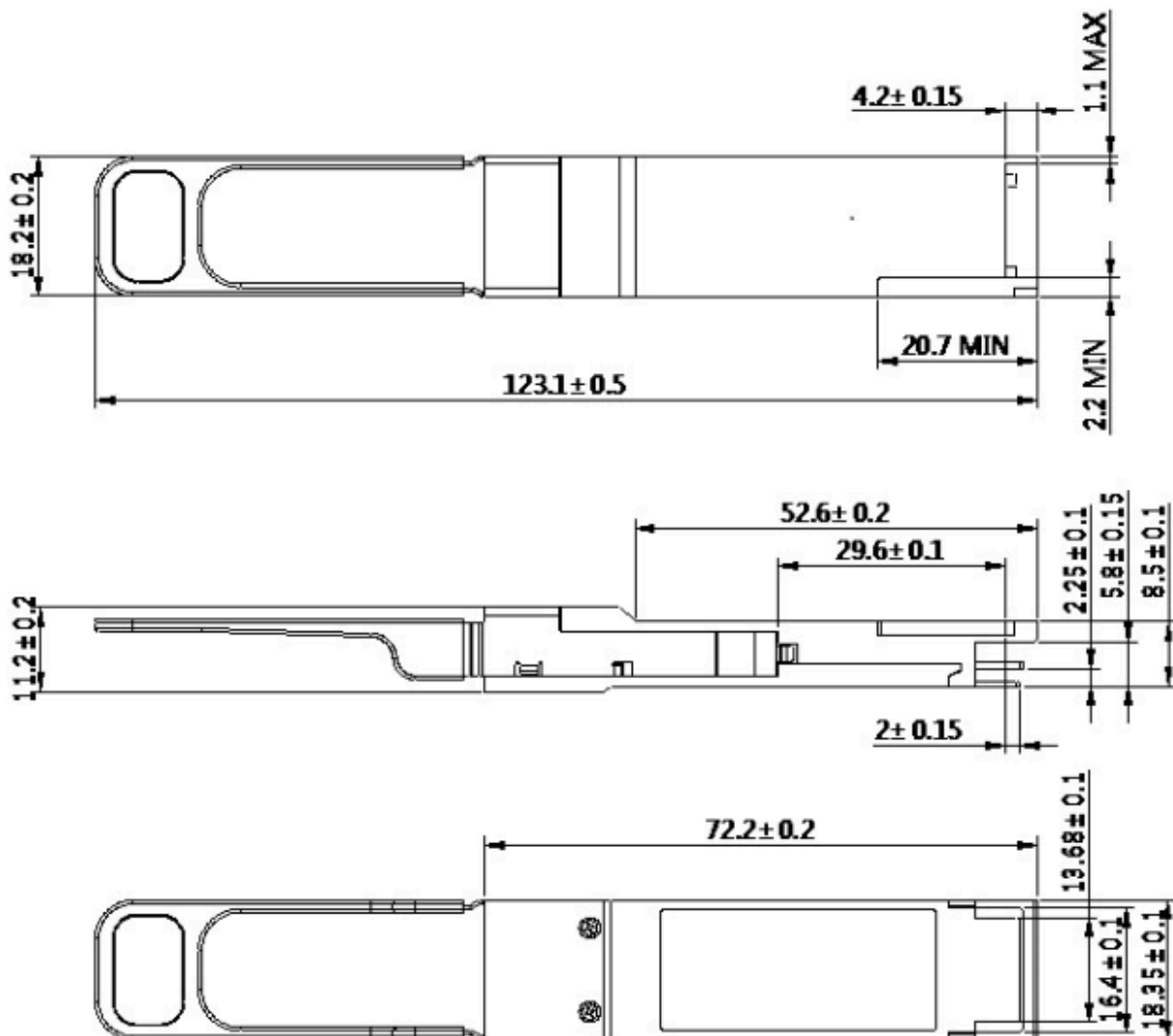
4. Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Units	Notes
Transmitter						
Launch Optical Power	P _o	-8.4	-	2.4	dBm	1
Center Wavelength Range	λ _c	840	850	860	nm	-
Extinction Ratio	EX	2	-	-	dB	2
Power Budget	-	8.2	-	-	dB	
Spectral width(RMS)	Δλ	-	-	0.6	nm	
Transmitter and Dispersion Penalty	TDP	-	-	4.3	dB	-
Optical Return Loss Tolerance	ORLT	-	-	12	dB	-
Eye Diagram		IEEE Std 802.3bm compatible				
Receiver						
Center Wavelength	λ _c	840	850	860	nm	-
Average Receiver Sensitivity (P _{avg})	S	-	-	-10.3	dBm	3
Receiver Overload (P _{avg})	POL	2.5	-	-	dBm	
Damage Threshold	POL	3.4	-	-	dBm	
Optical Reflectance	ORL	-	-	-12	dB	-
LOS De-Assert	LOSD	-	-	-11	dBm	-
LOS Assert	LOSA	-30	-	-	dBm	-
LOS Hysteresis	-	0.5	-	5	dB	-

Notes:

1. The optical power is launched into OM3 MMF.
2. Measured with a PRBS 231-1 test pattern @25.78125Gbps.
3. Measured with PRBS 231-1 test pattern, 25.78125Gb/s, BER<5E⁻⁵.

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
Adtran	1445510F1C-I-A	H3C	QSFP-100G-SR4-MM850-I-A
Agema	QSFP-100GA4BDR-I-A	HP	JL274A-I-A
Alcatel	3HE11275AA-I-A	HP	JL309A-I-A
Allied Telesis	AT-QSFP28-SR4-I-A	Infinera	TOM-100G-Q-SR4-I-A
Arista	QSFP-100G-SR4-I-A	Infinera	TOM-100GMR-Q-SR4-I-A
Arista	100GEQ-SR4-I-A	Ixia	QSFP28-SR4-XCVR-I-A
Avago	AFBR-89CDDZ-I-A	Juniper	JNP-QSFP-100G-SR4-I-A
Brocade/Extreme	100G-QSFP28-SR4-I-A	Juniper	QSFP-100GBASE-SR4-I-A
Calix	100-04650-I-A	Juniper	QSFP-100G-SR4-T2-I-A
Check Point	CPAC-TR-100SR-I-A	Lenovo	7G17A03539-I-A
Chelsio	SM100G-SR-I-A	Mellanox	MMA1B00-C100D-I-A
Ciena	160-9400-900-I-A	Meraki	MA-QSFP-100G-SR4-I-A
Cisco	QSFP-100G-SR4-S-I-A	MRV	QSFP28-100GE-SR4-I-A
Extreme	10401-I-A	MSA	AN-QSFP28-SR4-I-A
Dell	Q28-100G-SR4-I-A	MSA Champion ONE	100GQSFP28E-SR4-I-A
Dell	407-BBSM-I-A	MSA Champion ONE	100GQSFP28E-SR4-I-A
Dell	407-BBWV-I-A	OnePort	OP-QSFP28-SR4-I-A
Edgecore	ET7402-SR4-I-A	Nokia	3HE10551AA-I-A
Extreme	AA1405005-E6-I-A	Noviflow	400000511-I-A
F5 Networks	F5-UPG-QSFP28-SR4-I-A	Optelian	1029-3600-I-A
Finisar	FTLC9551REPM-I-A	Palo Alto	PAN-QSFP28-100GBASE-SR4-I-A
Finisar	FTLC9558REPM-I-A	Plexxi	PX-CBL-QSFP28-SR4-100M-I-A
Fortinet	FG-TRAN-QSFP28-SR4-I-A	Ruckus Wireless	E100G-QSFP28-SR4-I-A
Gigamon	Q28-502-I-A	Transition Networks	TN-QSFP-100G-SR4-I-A

7. Contact Information

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Web: <http://www.approvednetworks.com>