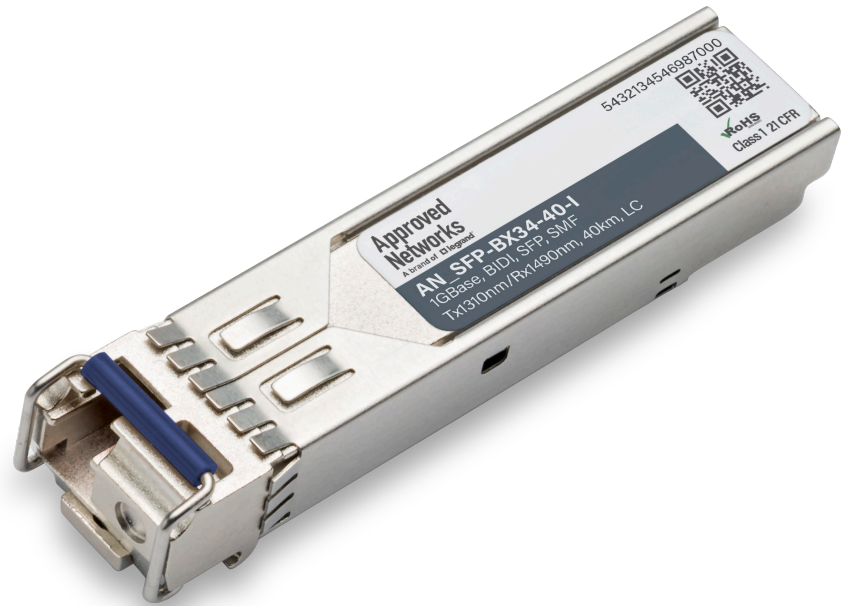


Features

- Up to 1.25Gb/s Data Links
- Hot-Pluggable
- Single LC connector
- Up to 40 km on 9/125µm SMF
- 1310nm FP laser transmitter
- 1490nm PIN photo-detector
- Single +3.3V Power Supply
- Monitoring Interface Compliant with SFF-8472
- Maximum Power <1W
- Industrial operating temperature range: -40°C to 85°C
- RoHS compliant and Lead Free



Applications

- 1000Base-EX Ethernet
- Metro/Access Networks
- 1×Fibre Channel
- Other Optical Links

1. Absolute Maximum Ratings

Operation in excess of any absolute maximum ratings might cause permanent damage to this module.

Parameter	Symbol	Min	Typ	Max	Units
Storage Temperature	TS	-40		+85	°C
Power Supply Voltage	VCC	-0.5		4	V
Relative Humidity	RH	0		85	%

2. Recommended Operating Environment

Parameter	Symbol	Min	Typ	Max	Unit
Case operating Temperature	TC	-40	85	°C	°C
Supply Voltage	VCC	3.135		3.465	V
Supply Current	Icc			300	mA

Inrush Current	I _{surge}			I _{cc+30}	mA
Maximum Power	P _{max}			1	W

3. Electrical Characteristics

(TOP = -40 to 85°C, VCC = 3.135 to 3.465 Volts)

Parameter	Symbol	Min	Typ	Max	Unit	Note
Transmitter Section:						
Input differential impedance	R _{in}	90	100	110		1
Single ended data input swing	V _{in PP}	250		1200	mVpp	
Transmit Disable Voltage	VD	V _{cc} -1.3		V _{cc}	V	2
Transmit Enable Voltage	VEN	V _{ee}		V _{ee} +0.8	V	
Transmit Disable Assert Time	T _{dessert}			10	us	
Parameter	Symbol	Min	Typ	Max	Unit	Note
Receiver Section:						
Single ended data output swing	V _{out,pp}	300		800	mv	3
LOS Fault	V _{losfault}	V _{cc} -0.5		V _{CC_host}	V	5
LOS Normal	V _{losnorm}	V _{ee}		V _{ee} +0.5	V	5
Power Supply Rejection	PSR	100			mVpp	6

Notes:

1. AC coupled.
2. Or open circuit.
3. Into 100 ohm differential termination.
4. 20 – 80 %
5. LOS is LVTTTL. Logic 0 indicates normal operation; logic 1 indicates no signal detected.
6. All transceiver specifications are compliant with a power supply sinusoidal modulation of 20 Hz to 1.5MHz up to specified value applied through the power supply filtering network shown on page 23 of the Small Form-factor Pluggable (SFP) Transceiver Multi-Source Agreement (MSA), September 14, 2000.

4. Optical Parameters

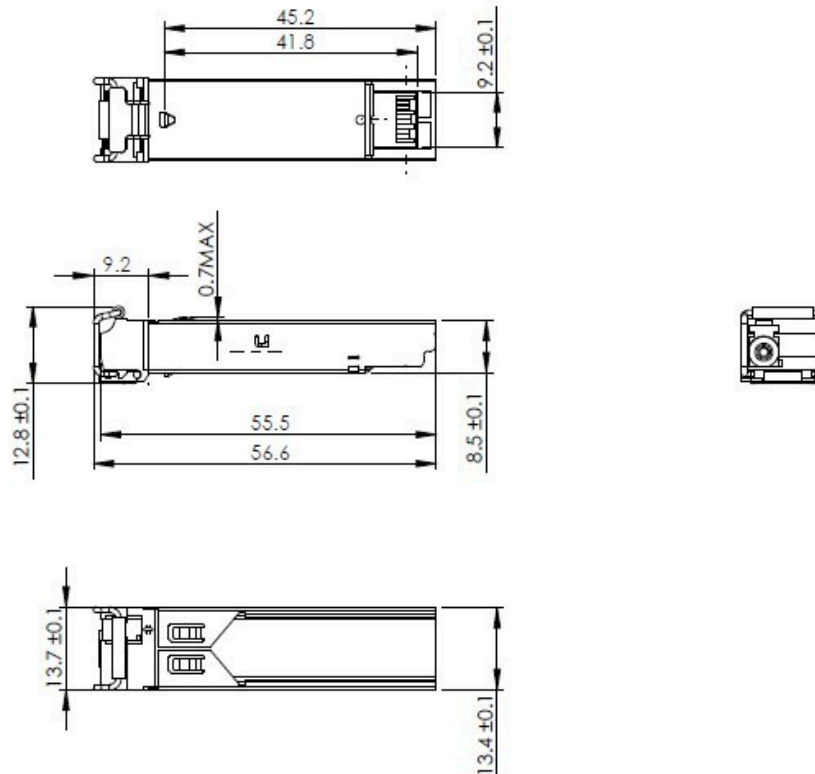
(TOP = -40 to 85°C, VCC = 3.135 to 3.465 Volts)

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Transmitter Section:						
Center Wavelength	λ_c	1270	1310	1600	nm	
Spectral Width	σ			1	nm	
Side Mode Suppression Ratio	SSRmin	30			dB	
Optical Output Power	Pout	-5		0	dBm	1
Extinction Ratio	ER	9			dB	
Optical Rise/Fall Time	tr / tf			260	ps	2
Relative Intensity Noise	RIN			-120	dB/Hz	
Total Jitter Contribution	TX Δ TJ			0.284	UI	3
Output Eye Mask	Compliant with IEEE802.3 z (class 1 laser safety)					
Receiver Section:						
Optical Input Wavelength	λ_c	1470	1490	1510	nm	
Receiver Overload	Pol	-3			dBm	4
RX Sensitivity	Sen			-25	dBm	4
RX_LOS Assert	LOS A	-40			dBm	
RX_LOS De-assert	LOS D			-24	dBm	
RX_LOS Hysteresis	LOS H	0.5			dB	
Parameter	Symbol	Min	Typ	Max	Unit	Notes
General Specifications:						
Data Rate	BR		1.25		Gb/s	
Bit Error Rate	BER			10-12		
Max. Supported Link Length on 9/125 μ m SMF@1.25Gb/s	LMAX		40		km	
Total System Budget	LB	21			dB	

Notes:

1. The optical power is launched into SMF.
2. 20-80%.
3. Jitter measurements taken using Agilent OMNIBERT 718 in accordance with GR-253.
4. Measured with PRBS 2⁷⁻¹ at 10⁻¹² BER

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	7SY-000-A	Cyan	280-0340-00-A
Adtran	1200487G40-A	Dell	407-BBOO-34-40-A
Adtran	1442140G2-A	Extreme	MGBIC-BX40-U-A
Adva	61003018-A	Juniper	EX-SFP-GE40KT13R14-A
Adva	1061705874-01-A	Juniper	QFX-SFP-GE40KT13R14-A
Alcatel	3HE04324AA-A	Juniper	SFP-GE40KT13R14-A
Alcatel	SFP-GIG-BX-U-40-A	Juniper	SRX-SFP-GE40KT13R14-A
Avaya	AA1419076-E6-A	Meraki	MA-SFP-1GB-BXU-40-A
Brocade	E1MG-BXU-40-A	MSA Champion ONE	1000SFP34B40L-H
Calix	100-01670-A	MSA Generic	AN-SFP-BX34-40-I
Ciena	XCVR-A40U31-A	Netgear	AGM732F-BX-U-40-A
Ciena	GESFP-B31-40-CIE	OnePort	OP-SFP-BX34-40

Cisco	GLC-BX-U-40-I-A	Palo Alto	PAN-SFP-BX-U-40-A
Cisco	GESFP-B31-40-CSC	Transition Networks	TN-SFP-LXB-34-40KM-A
Comtrend	3192342-A	Ubiquiti Networks	UF-SM-1G-S-34-40K-A

7. Contact Information

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