

## Features

- Supports 1.244Gbps data links
- 1310nm DFB laser and PIN photodetector for 40km transmission
- 2xBi-directional transceivers in 1 SFP transceiver package
- Compliant with CSFP MSA Option 2 and SFF-8472
- Digital Diagnostic Monitoring: Internal Calibration or External Calibration
- Compatible with SONET OC-24 system
- Compatible with RoHS
- +3.3V single power supply
- Operating case temperature:  
 0 to +70°C (Commercial)  
 -40 to +85°C (Industrial)



## Applications

- SDH STM-8 and SONET OC-24 system
- Fiber Channel
- Switch to Switch interface
- Point to Point FTTH Application
- Other optical transmission systems

## 1. Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	-0.5	4.5	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	-	5	85	%

## 2. Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Commercial	Tc	0	+70	°C
	Industrial	Tc	-40	+85	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Supply Current	Icc			450	mA
Data Rate				1244	Mbps

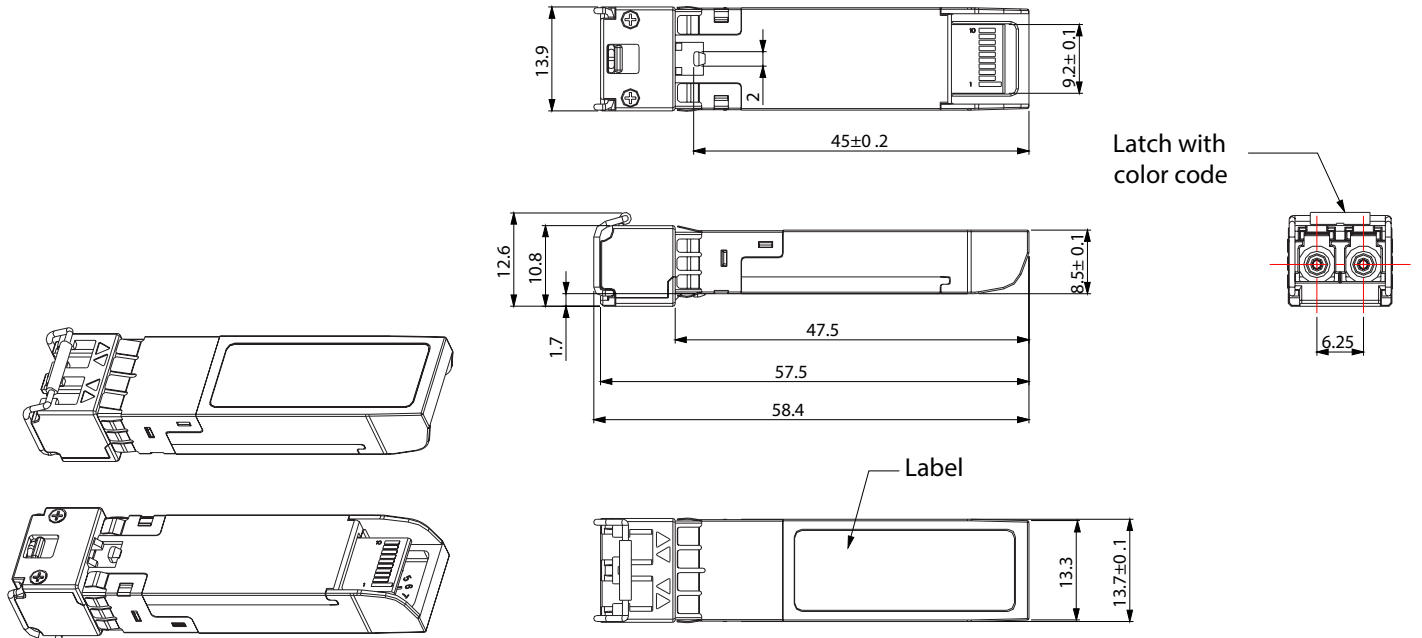
### 3. Optical and Electrical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Notes
<b>Transmitter</b>						
Centre Wavelength	$\lambda_c$	1470	1490	1510	nm	
Spectral Width (-20dB)	$\sigma$			1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Average Output Power	Pout	-5		0	dBm	1
Extinction Ratio	ER	9			dB	
Optical Rise/Fall Time (20%~80%)	tr/tf			0.26	ns	
Data Input Swing Differential	VIN	400		1800	mV	2
Input Differential Impedance	ZIN	90	100	110	$\Omega$	
TX Disable	Disable		2.0	Vcc	V	
	Enable		0	0.8	V	
TX Fault	Fault		2.0	Vcc	V	
	Normal		0	0.8	V	
<b>Receiver</b>						
Centre Wavelength	$\lambda_c$	1290	1310	1330	nm	
Receiver Sensitivity				-25	dBm	3
Receiver Overload		0			dBm	3
LOS De-Assert	LOSD			-27	dBm	
LOS Assert	LOSA	-40			dBm	
LOS Hysteresis		1		4	dB	
Data Output Swing Differential	Vout	400		1800	mV	4
LOS	High		2.0	Vcc	V	
	Low			0.8	V	

**Notes:**

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS 2<sup>23</sup>-1 test pattern @1244Mbps, BER  $\leq 1 \times 10^{-12}$ .
4. Internally AC-coupled.

## 4. 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.

## 5. Ordering Information

OEM	Part Number	OEM	Part Number
Adtran	1442040G1-A	Calix	100-04063-A
Alcatel	3HE08314AA-A	MSA Generic	AN-CSFP-BXD-40-I

## 6. Contact Information

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