

# 10G 40km SFP+ Transceiver

## ET5402-ER



### Product Features

- Compliant with SFP+ MSA
- Data Rate 10.3125 Gbps
- EML Laser and PIN receiver
- Single 3.3V power supply
- Up to 40km transmission on 9/125um SMF
- LC duplex receptacle
- Low power dissipation (1.5W)
- Hot Pluggable
- Built in digital diagnostic Functions
- RoHS compliant
- Commercial operating temperature: 0°C to +70°C

### Applications

- 10GBASE-ER 10Gigabit Ethernet
- High-speed storage area networks
- Computer cluster cross-connect
- Custom high-speed data pipes

### Descriptions

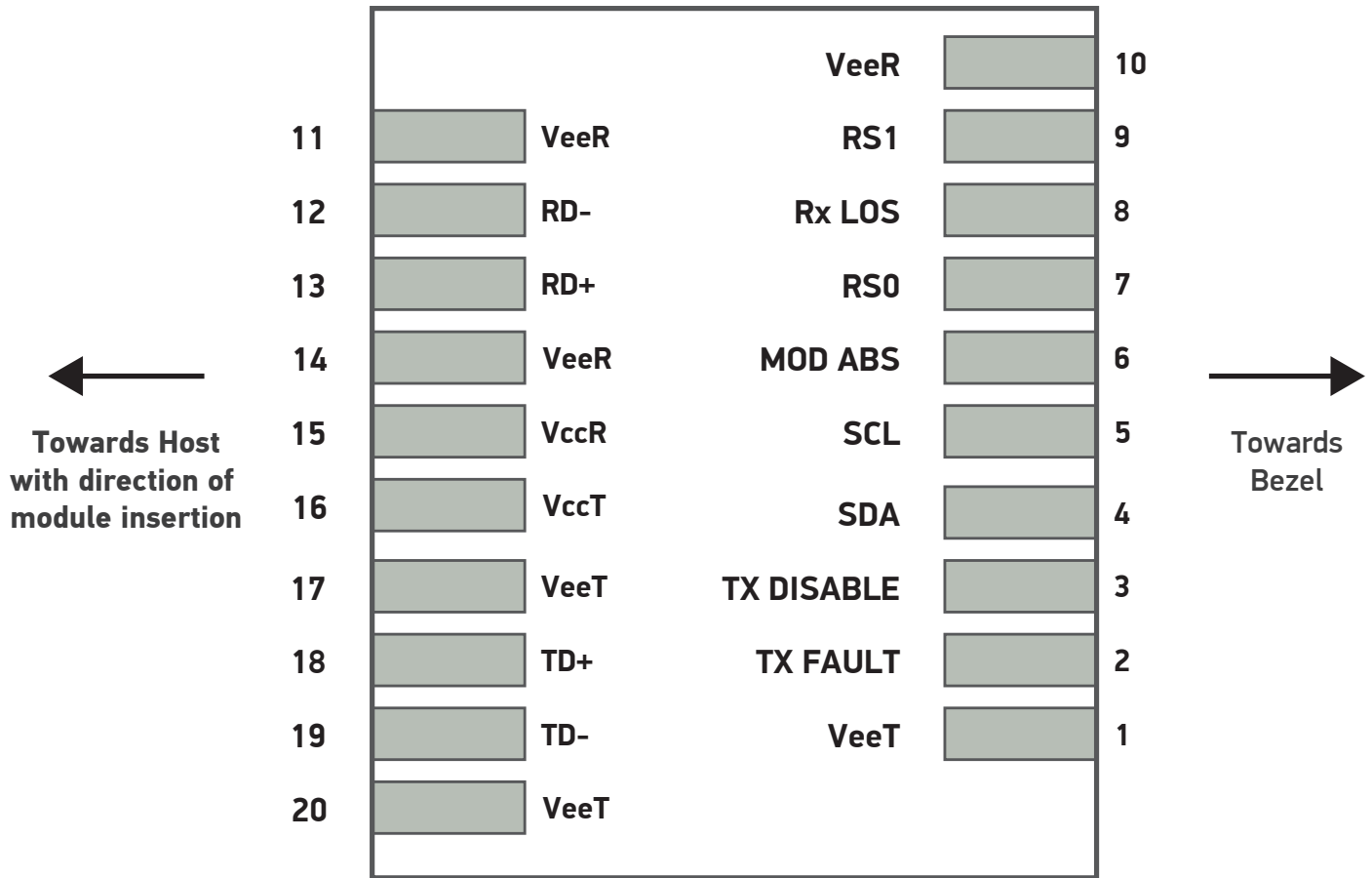
The ET5402-ER transceivers are high-performance, cost-effective modules supporting a data rate of 10Gbps and a 40 km transmission distance with SMF. The transceivers are compatible with SFP+ Multi-Source Agreement (MSA). For further information, please refer to SFP MSA.

### Ordering Information

Part Number	Transmitter	Output Power	Sensitivity	Reach	Temp	DDM	RoHS
ET5402-ER	1550 nm	-1.0 ~ 3.0 dBm	0 ~ -16.0 dBm	40 km	0~ 70 °C	Available	Compliant



## Pin Description



## 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	Minimum	Maximum	Unit	
Storage Temperature	Ts	-40	85	°C	
Relative Humidity	RH	5	95	%	
Supply Voltage	Vcc	-0.3	4	V	

## Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Unit	
Operating Case Temperature	Tc	0		70	°C	
Supply Voltage	Vcc	3.14	3.3	3.47	V	
Data Rate PER Channel	-	-	10.3125	-	Gb/s	

## Transceiver Electrical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Input Differential Impedance	Rin		100		Ω	
Single Ended Data Input Swing	Vin PP	180		700	mV	

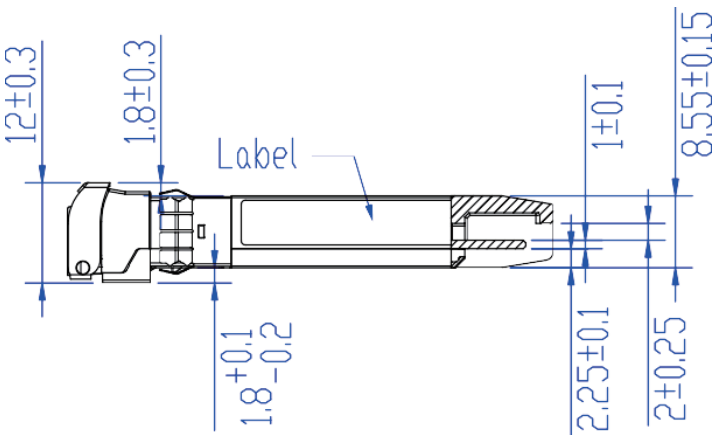
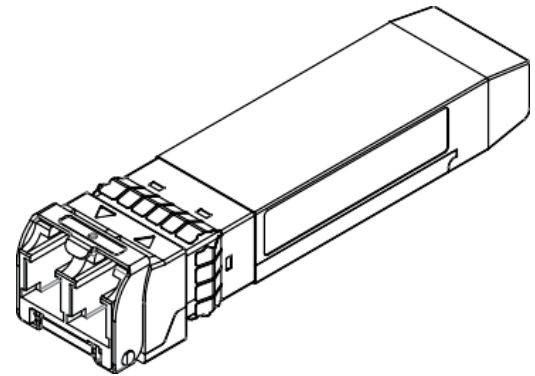
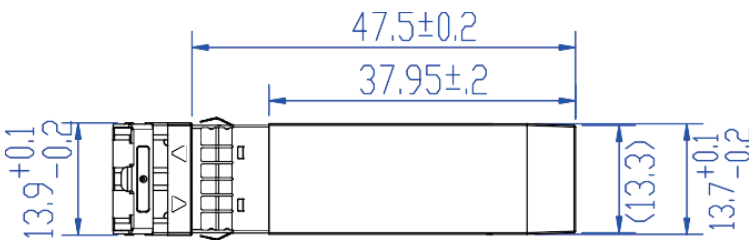
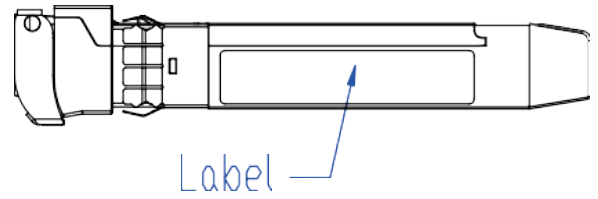
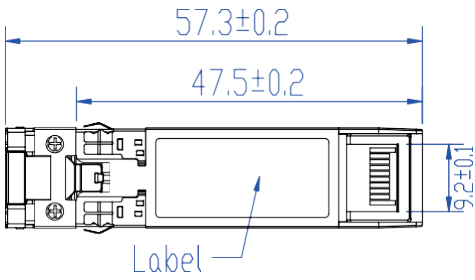
## Transmitter Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Launch Optical Power	Po	-1.0		3.0	dBm	-
Center Wavelength Range	λc	1530	1550	1560	nm	-
Extinction Ratio	ER	8.2	-	-	dB	-

## Receiver Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Center Wavelength	λc	1270		1610	nm	-
Receiver Sensitivity in Average Power	Sen	0		-16	dBm	-

## Mechanical Specifications



### Warranty

Please check [www.edge-core.com](http://www.edge-core.com) for the warranty terms in your country.

### For More Information

To find out more about Edgecore Networks Corporation products and solutions, visit [www.edge-core.com](http://www.edge-core.com).

### About Edgecore Networks Corporation

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Edgecore Networks Corporation is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edgecore data center switches are developed and manufactured by Accton.

To purchase Edgecore Networks solutions, please contact your Edgecore Networks Corporation representatives at +886 3 563 8888 (HQ) or +1 (949)-336-6801 or authorized resellers.

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