

## 10GBase-LR Extended Temperature Singlemode SFP+ Module

### KEY FEATURES:

- Support 10GBase-LR and 10G Fibre Channel up to 10km over SingleMode fiber
- Ambient Operating Temperature: -40°C to +85°C
- SFF-8431 and SFF-8432 MSA Compliant
- Hot-pluggable
- RoHS compliant and lead-free
- Single +3.3V power supply
- Supports Digital Optical Diagnostics (DOM)



### ORDERING INFORMATION:

PART NUMBER	DESCRIPTION
AS51030	10G LR Extended Temperature SFP+ Module LC/SM, 10km

### SPECIFICATIONS

#### APPLICABLE STANDARDS

IEEE 802.3ae 10GBase-LR  
IEEE 802.3z 1000Base-LX

#### 3.3V ELECTRICAL POWER INTERFACE

**Supply Current:** Max: 300mA  
**Input Voltage:** Typical: 3.3, Min: 3.13, Max: 3.47V

#### ENVIRONMENTAL REQUIREMENTS

**Operating Temperature:** -40 to 185°F (-40 to 85°C)  
**Storage Temperature:** -40 to 185°F (-40 to 85°C)  
**Operating/Storage Humidity:** 5 to 95% (non-condensing)

#### CERTIFICATIONS

**Emissions:** CE Mark: EN 55022, Class B; FCC Part 15 Class B; VCCI Class B  
**Immunity:** IEC61000-4-2/3  
**Safety:** EN 60950, IEC 60825-1/2, FDA 21CFR 1040.10/11

#### WARRANTY

Five Years

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### OPTICAL CHARACTERISTICS:

PARAMETER	MIN	TYPICAL	MAX	UNIT	NOTE
<b>Transmitter</b>					
Output Opt. Power	-6	-	+0.5	dBm	1
Optical modulation amplitude	-5.2	-2		dBm	
Extinction Ratio	3.5	-	-	dB	
Transmitter and Dispersion Penalty	-	-	3.2	dB	
Average Launch power of OFF TX	-	-	-30	dBm	
Optical Wavelength	1260	1310	1355	nm	
Side mode Suppression Ratio	30			dB	
Optical Return Loss Tolerance			12	dB	
Relative Intensity Noise	-	-	-128	dB/Hz	
Transmitter Reflectance	-	-	-12	dB	
Eye Diagram	Compatible with IEEE 802.3-2005				
Receiver Sensitivity	-	-	-14.4	dBm	1
Overload	0.5	-	-	dBm	1
Receiver Reflectance	-	-	-12	dB	
Optical Center Wavelength	1260	-	1610	nm	
Los Assert	-30	-	-	dBm	
Los De-assert	-	-	-15	dBm	
Los hysteresis	0.5	-	5	dB	

### NOTES:

- BER  $\leq 10^{-12}$  @PRBS231-1 at 10.3125Gb/s.

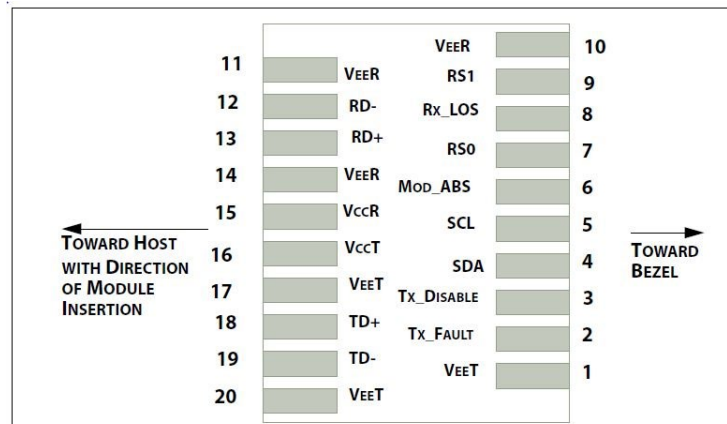


Figure 1. Diagram of host board connector block pin numbers and names

# Product Specifications

## 10GBase-LR Extended Temperature Singlemode SFP+ Module

### MECHANICAL DIMENSIONS (MM)

