

## AFBR-725SMZ

25GE SFP+ for Multi-Mode Optical Fiber  
Digital Diagnostic SFP, 850 nm, Low Voltage (3.3 V)  
25GBASE-SR, Ethernet Optical Transceiver



## Product Brief



### Description

Avago Technologies' AFBR-725SMZ optical transceiver supports high speed serial links over multi-mode optical fiber at signalling rates up to 25.78 Gb/s (the serial line rate of 25GE). The product is compliant with Small Form Pluggable industry agreements SFP and SFP+ for mechanical and low speed electrical specifications. High speed electrical and optical specifications are compliant with IEEE 802.3by for 25GBASE-SR.

The AFBR-725SMZ is a multi-rate 850nm transceiver which ensures compliance with 25GBASE-SR specifications. Per the requirements of 25GE, internal clock and data recovery circuits (CDRs) are present on both electrical input and electrical output of this transceiver. These CDRs will lock at 25.78 Gb/s. Digital diagnostic monitoring information (DMI) is present in the AFBR-725SMZ per the requirements of SFF-8472, providing real time monitoring information of transceiver laser, receiver and environment conditions over a SFF-8431 2-wire serial interface.

### Part Number Ordering

AFBR-725SMZ	Operating temperature 0 °C to 70 °C
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### Features

- Compliant to RoHS directives
- 850 nm Vertical Cavity Surface Emitting Laser (VCSEL)
- Class 1 eye safe per IEC60825-1 and CDRH
- Wide temperature range (0 °C to 70 °C)
- LC duplex connector optical interface conforming to ANSI TIA/EIA604-10 (FOCIS 10A)
- Diagnostic features per SFF-8472 "Diagnostic Monitoring Interface for Optical Transceivers"
- Enhanced operational features including variable electrical EQ/emphasis settings
- Real time monitoring of:
  - Transmitter average optical power
  - Received average optical power
  - Laser bias current
  - Temperature
  - Supply Voltage
- SFP+ mechanical specifications per SFF-8432
- SFP+ compliant low speed interface
- 25GBASE-SR compliant optical link distances

### Applications

- Ethernet switches (director, stand alone, blade)
- Ethernet NIC Cards/Adapters
- Port side connections
- Inter-switch or inter-chassis aggregated links

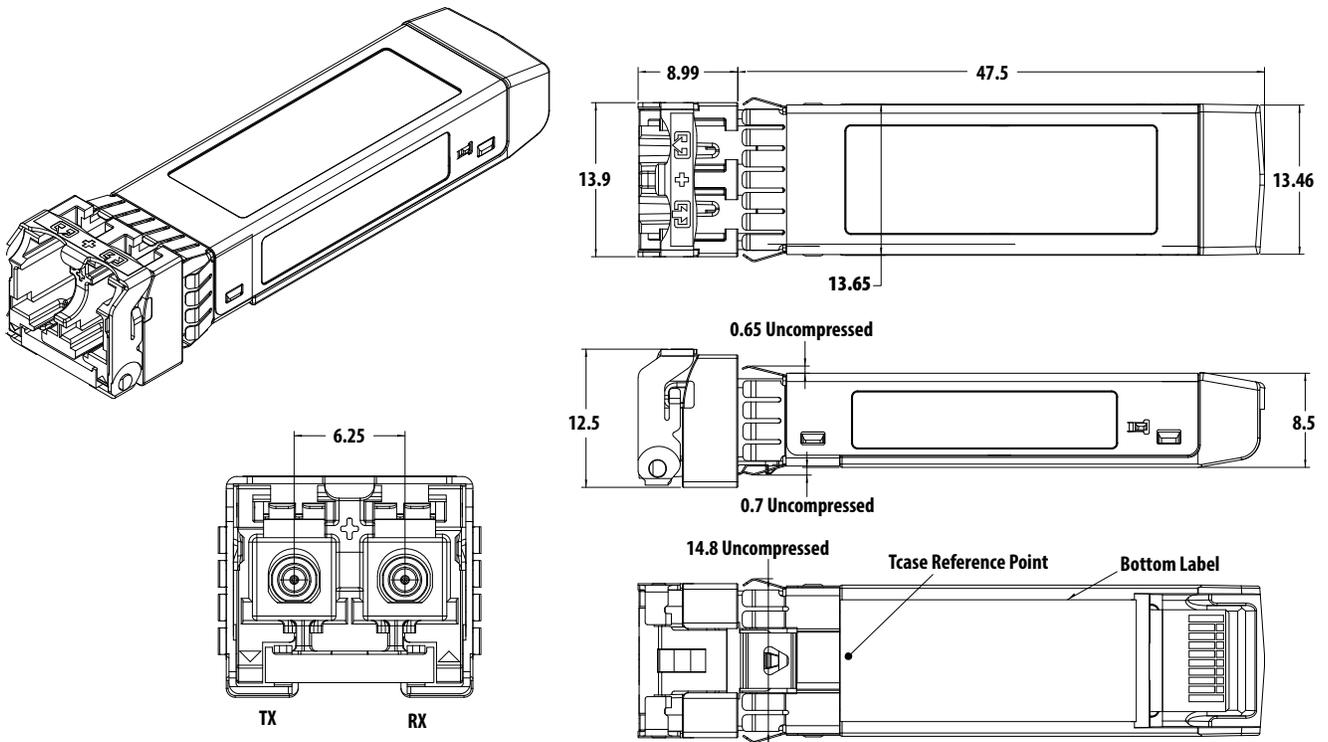


Figure 1. Module drawing

### Key Product Parameters

Parameter	Value	Units	Notes
Data rate	25.78125	Gbps	
Power Supply Voltage	3.3	V	Typical
Power Consumptions	1	W	Maximum
Link Length	70	m	50um OM3 MM fiber
	100	m	50um OM4 MM fiber
Operating Temperature Range	0 – 70	°C	
Management and Diagnostic Interface	Two-Wire Serial		Per SFF-8431 and SFF-8472 SFP+ specifications
Transceiver Eye Safety	Class 1		
Signal Integrity Functions	TX Input EQ RX Output Emphasis		Two-wire serial bus controlled

For product information and a complete list of distributors, please go to our website: [www.avagotech.com](http://www.avagotech.com)

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