

SFP28 25G 10km LR Transceiver

Features:

- 25Gbps serial optical interface
- 1310nm DFB transmitter and PIN PD receiver
- Superior eye performances
- Maximum link length of 10km

Applications:

- Data Center Backbone
- Ethernet Switches
- High-speed Servers
- High-performance Computing Clusters
- SAN, Routers, Hubs, Load Balancer



Absolute Maximum Ratings

Parameter	Symbol	Conditions	Min.	Max.	Unit
Storage Temperature	T _{Storage}		-40	+85	°C
Relative Humidity	RH		0	+85	%

Recommended Operating Conditions (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Case Temperature	T _C		0		70	°C
Power Supply Voltage	V _{CC}		3.15	3.30	3.45	V
Signaling Rate each Channel				25.78125		Gbps

Electrical Characteristics (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Power Consumption					1	W
Supply Current	I _{CC}				300	mA

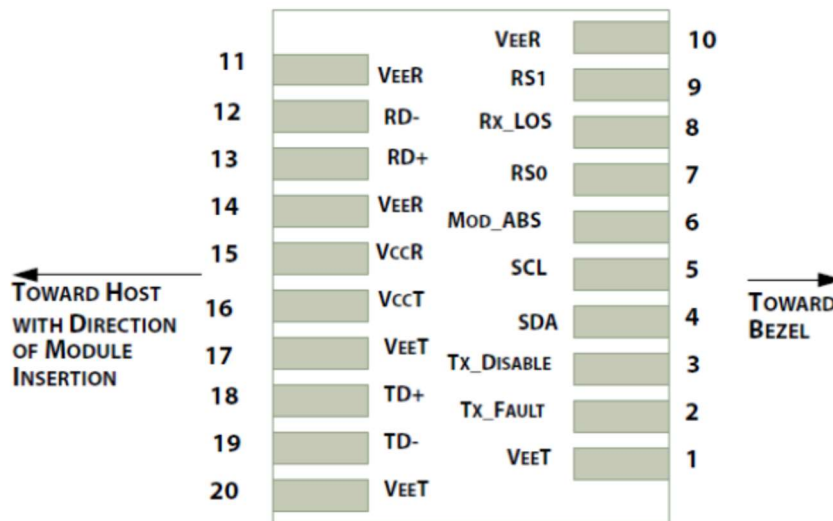
TRANSMITTER CHARACTERISTICS (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Center Wavelength	λ		1290		1330	nm
Side-mode Suppression Ratio	SMSR		30			dB
Average Optical Power	P_{avg}		-8.5		3.0	dBm
Optical Modulation Amplitude	TxOMA		-6.5		2.5	dBm
Transmitter and Dispersion Penalty	TDP				3	dB
Average Launch Power of OFF Transmitter	P_{off}				-30	dBm
Extinction Ratio	ER		3.5			dB
Optical Return Loss Tolerance					20	dB
Transmitter Reflectance					-20	dB

RECEIVER CHARACTERISTICS (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Center Wavelength	λ		1260		1360	nm
Damage Threshold			3.5			dBm
Receive Power Overload					3.5	dBm
Receiver Reflectance					-12	dB
Receiver Sensitivity (OMA)	S_{OMA}				-11.3	dBm
LOS Assert	LOS_A			TBD		dBm
LOS De-Assert	LOS_D			TBD		dBm
LOS Hysteresis				TBD		dB

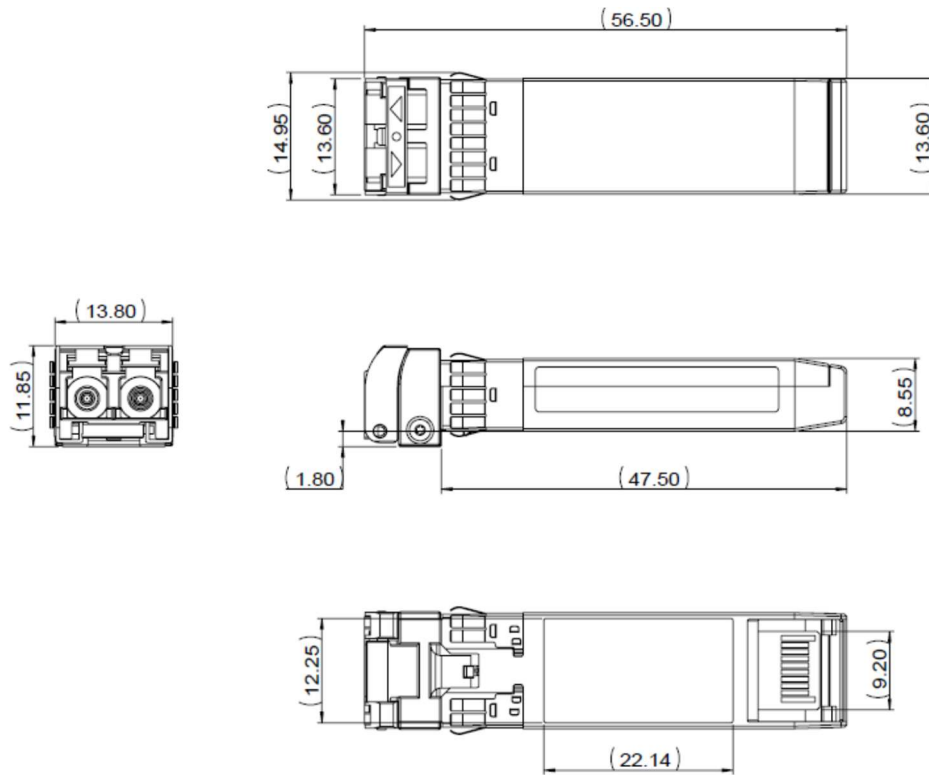
Pin Assignment



Pin Description

PIN	Logic	Symbol	Name / Description
1		VeeT	Module Transmitter Ground
2	LVTTTL-O	TX_Fault	Module Transmitter Fault
3	LVTTTL-I	TX_Dis	Transmitter Disable; Turns off transmitter laser output
4	LVTTTL-I/O	SDA	2-Wire Serial Interface Data Line
5	LVTTTL-I	SCL	2-Wire Serial Interface Clock
6		MOD_DEF0	Module Definition, Grounded in the module
7	LVTTTL-I	RS0	Receiver Rate Select
8	LVTTTL-O	RX_LOS	Receiver Loss of Signal Indication Active LOW
9	LVTTTL-I	RS1	Transmitter Rate Select (not used)
10		VeeR	Module Receiver Ground
11		VeeR	Module Receiver Ground
12	CML-O	RD-	Receiver Inverted Data Output
13	CML-O	RD+	Receiver Data Output
14		VeeR	Module Receiver Ground
15		VccR	Module Receiver 3.3 V Supply
16		VccT	Module Receiver 3.3 V Supply
17		VeeT	Module Transmitter Ground
18	CML-I	TD+	Transmitter Non-Inverted Data Input
19	CML-I	TD-	Transmitter Inverted Data Input
20		VeeT	Module Transmitter Ground

Outline Dimensions



Sum Up

Part No	Specification									
	Package	Data rate per Lane	Laser	Optical Power	Detector	Max. Receive Sensitivity (OMA)	Temp	Reach	Other	Application code
EGS-S28-LR-C	SFP28	25.78125 Gbps each Channel	1310nm DFB	-8.5~ +3 each Channel	PIN	-11.3dBm each Channel	0~70°C	10km	DDM RoHS	Ethernet