40/100Gb/s QSFP28, Bi-Di, Duplex LC 100m Transceiver

QSFP28 Series

Ascent's QSFP28 100G LR1 Ethernet module is a Four-Channel,Pluggable, LC Duplex, Fiber-Optic QSFP+ Transceiver for 40/100 Gigabit Ethernet Applications. This transceiver is a high performance module for short-range duplex data communication and interconnect applications. It integrates four electrical data lanes in each direction into transmission over a single LC duplex fiber optic cable. Each electrical lane operates at 25.78125/10.3125 Gbps and conforms to the 40/100GE XLPPI interface.

The transceiver internally multiplexes an XLPPI 4x25/10G interface into two 50/20Gbps electrical channels, transmitting and receiving each optically over one simplex LC fiber using bi-directional optics.

This results in an aggregate bandwidth of 40/100Gbps into a duplex LC cable. This allows reuse of the installed LC duplex cabling infrastructure for 40/100GbE application. Link distances up to 70 m using OM3 and 100m using OM4 optical fiber are supported. These modules are de- signed to operate over multimode fiber systems using a nominal wavelength of 850nm on one end and 910nm on the other end. The electrical interface uses a 38 contact QSFP28 type edge connector. The optical interface uses a conventional LC duplex connector.

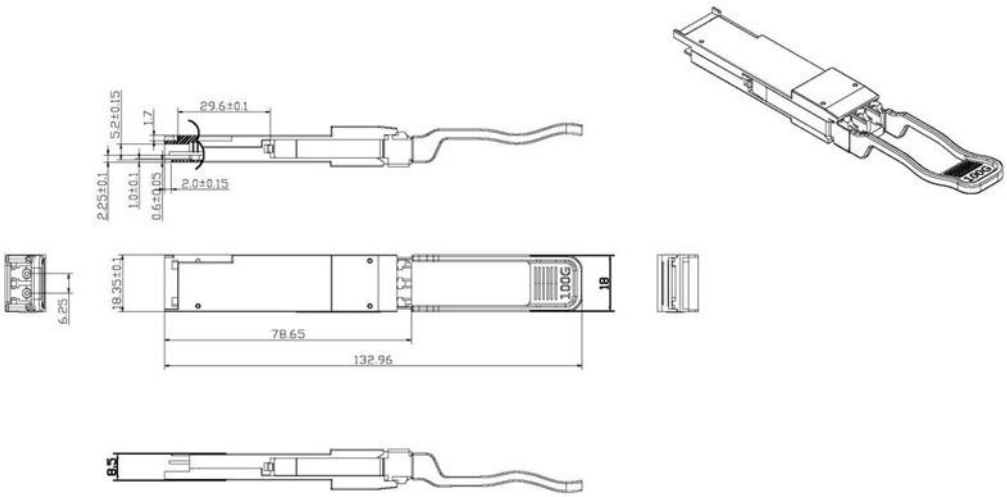
Key Features

- Compliant to 40/100GbE XLPPI electrical specification per IEEE 802.3bm
- Aggregate bandwidth of > 100Gbps
- Over 70m transmission on OM3 Multimode Fiber (MMF) and 100m on OM4 MMF
- QSFP28 MSA compliant, duplex LC interface
- RoHS Compliant Part
- Wide operating temperature: 0°C~70°C

Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating Case Temperature	T_c	0		+70	°C
		-40		+85	°C
Power Supply Voltage	$V_{CC}T$, R	+3.13	3.3	+3.47	V
Power Supply Current	I_{CC}			1000	mA
Maximum Power Consumption	PD			3.5	W
Optical Wavelength CH1	λ	832	850	868	nm
Optical Wavelength CH2	λ	882	910	918	nm
Average Optical Power per Channel	Pavg	-6	-1	+4.0	dBm
Laser Off Power Per Channel	Poff			-30	dBm
Optical Center Wavelength CH1	λ	882	910	918	nm
Optical Center Wavelength CH2	λ	832	850	868	nm
Receiver Sensitivity per Channel	R			-8	dBm
Maximum Input Power	PMAX	+0.5			dBm
Transmit Input Diff Voltage	VI	120		1200	mV
Rx Output Diff Voltage	Vo		600	800	mV

Outline Diagram



Ordering Information

Product Name	Product Description
QSFP-40/100-SRBD	QSFP28 SWDM4 SR BD 40/100GBASE-SM4 Dual Rate 850nm 100m DOM Duplex LC MMF

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