DATA SHEET

MODULETEK–QSFP28-ZR4-C10

100G QSFP28 LC Connectors, 80km(with host FEC), 40km(without host FEC), with DOM function

Product Features

- Compliant with QSFP28 Standard:
  SFF-8661 Rev 2.5, SFF-8636 Rev 2.10a
- High speed I/O electrical interface (CAUI-4)
  Compliant with IEEE 802.3bm
- LAN WDM EML laser and SOA+PIN Receiver
- Two Wire Serial Interface with Digital Diagnostic Monitoring
- RoHS Compliant
- Operating case temperature range:0°C to 70°C

Applications

- 100GBASE-ZR4 Ethernet

General Specifications

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Data Rate per Lane	DR		25.78		Gb/s	
Operating Temperature	T_{OP}	0		70	°C	1
Storage Temperature	T_{STO}	–40		85	°C	2
Input Voltage	V_{CC}	3.14	3.3	3.47	V	
Maximum Voltage	V_{MAX}	–0.5		3.6	V	3
Maximum Power Dissipation	P_D			TBD	W	
Maximum Power Dissipation Low Power Mode	P_D			1.5	W	2
Operationg Distance				80	KM	With FEC

Notes:

1. Case temperature
2. Ambient temperature
3. For electrical power interface

Optical Characteristics - Transmitter

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Total Average Optical Launch Power	P_{OUT}			12.5	dBm	
Total Average Optical Launch Power	P_{OUT_OFF}			−30	dBm	
Optical Center Wavelength(L0 Lane)	λ_{C0}	1294.53	1295.56	1296.59	nm	
Optical Center Wavelength(L1 Lane)	λ_{C0}	1299.02	1300.05	1301.09	nm	
Optical Center Wavelength(L2 Lane)	λ_{C0}	1303.54	1304.58	1305.63	nm	
Optical Center Wavelength(L3 Lane)	λ_{C0}	1308.09	1309.14	1310.19	nm	
Optical Modulation Amplitude (Each Lane)	OMA	0.1		4.5	dBm	
Extinction Ratio	ER	8			dB	
Side Mode Suppression Ratio	SMSR	30			dB	
Relative Intensity Noise	RIN			− 130	dB/Hz	
Transmitter and Dispersion Penalty (Each Lane)	TDP			2.5	dB	
Optical Return Loss Tolerance	ORLT			20	dBm	

Optical Characteristics - Receiver

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Optical Center Wavelength(L0 Lane)	λ_{C0}	1294.53	1295.56	1296.59	nm	
Optical Center Wavelength(L1 Lane)	λ_{C0}	1299.02	1300.05	1301.09	nm	
Optical Center Wavelength(L2 Lane)	λ_{C0}	1303.54	1304.58	1305.63	nm	
Optical Center Wavelength(L3 Lane)	λ_{C0}	1308.09	1309.14	1310.19	nm	
Average Receive Power (Each Lane)		−28		2	dBm	
Receiver Sensitivity(OMA), Each Lane 5 x 10^{-5} BER				−25.5	dBm	

Electrical Characteristics

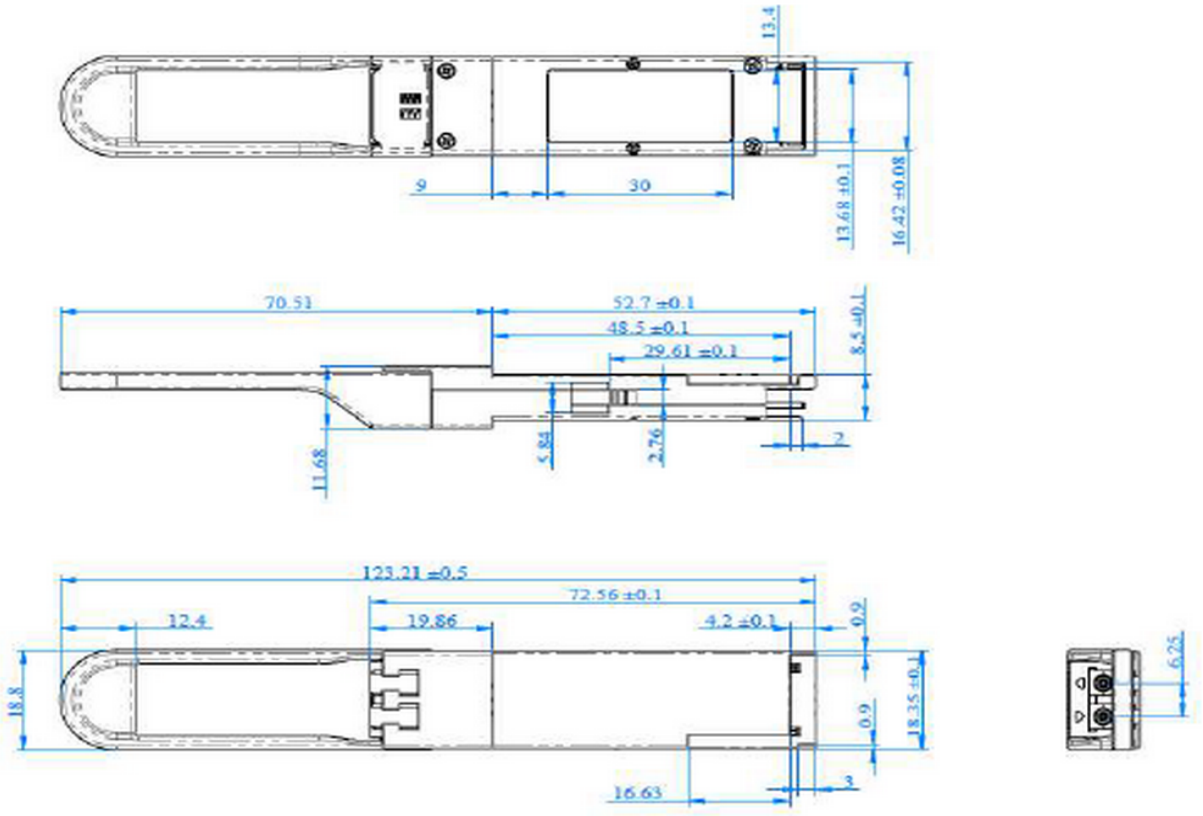
High-Speed Signal: Compliant to IEEE802.3 CAUI-4 C2M

Low-Speed Signal: Compliant to SFF-8679

Digital Diagnostic

Parameter	Range	Accuracy	Unit	Calibration
Temperature	0 to 70	±3	°C	Internal
Voltage	0 to V_{cc}	±3%	V	Internal
Tx Bias Current(Each Lane)	0 to 100	10%	mA	Internal
Tx Output Power(Each Lane)	1 to +4.5	±3	dB	Internal
Rx Receive Power(Each Lane)	-28 to 2	±3	dB	Internal

Dimensions



ALL DIMENSIONS ARE ±0.2mm UNLESS OTHERWISE SPECIFIED
UNIT: mm