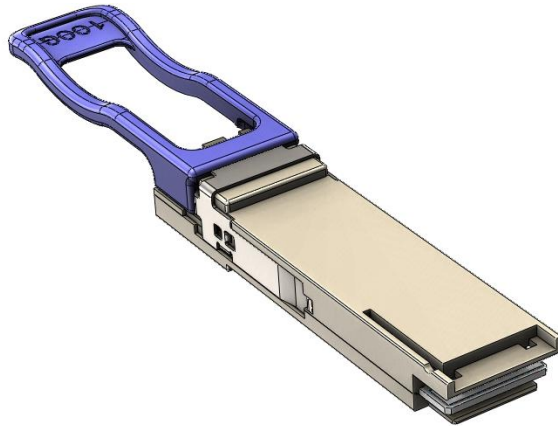


100G CWDM4 QSFP28 Optical Transceivers



Product Introduction

Accelink's 100G QSFP28 CWDM4 module is designed to meet the requirements of optical fiber interface for 2km reach over duplex SMF in data centers. It is a cost-effective, low power CWDM optical transceiver with high port densities and compact size. Each transceiver incorporates four direct modulated lasers with driver ICs, four PIN diodes with TIAs, and two Mux/De-Mux blocks in a highly integrated CWDM configuration for operation over duplex LC connectors. Mechanical dimensions, connectors and the footprint of this product is QSFP+ specifications compliant.

Features

- Single channel rate up to 25.8Gbps
- Transmission distance up to 2km
- Compliant with QSFP+ specifications
- 4 CWDM uncooled DML lasers
- Duplex LC connectors
- Single +3.3V power supply
- Low power consumption less than 3.5W
- Operating temperature range: 0°C ~ +70°C
- Compliant with RoHS6

Applications

- 100G Ethernet
- Data Center Networking

Standards

- QSFP28:SFF-8665,SFF-8679, SFF-8636
- IEEE802.3bm
- 100G CLR4 Specifications Rev. 1.3

Specifications

Parameter	Symbol	Unit	Specifications
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			Min	Typ	Max
Tx					
Center wavelength		nm	1264.5 1284.5 1304.5 1324.5		1277.5 1297.5 1317.5 1337.5
Signaling rate, per lane		Gbit/s	25.78125±100ppm		
Operating link reach		km	0.002		2
Optical modulation amplitude, per lane	OMA	dBm	-4		2.5
Transmitter and dispersion penalty, per lane	TDP	dB			3
Optical extinction ratio	ER	dB	3.5		
Average launch power, per lane		dBm	-6.5		2.3
Average launch power of OFF transmitter, per lane		dBm			-30
Transmitter reflectance		dB			-12
Relative intensity noise	RIN	dB/Hz			-130
Rx					
Center wavelength		nm	Same as Tx		
Signaling rate, per lane		Gbit/s	Same as Tx		
Damage threshold	DT	dBm	3.3		
Average launch power, per lane		dBm	-10		2.3
Receive Power(OMA) per lane		dBm			3.0
Receive Sensitivity(OMA) per lane ¹		dBm			-8.5
Receiver reflectance		dB			-26
LOS De-Assert (OMA)	LOSD	dBm	-30		-17
LOS Assert (OMA)	LOSA	dBm			-16

Note: 1 At TP2, 2 PRBS2³¹-1 and BER<1E-12

Ordering Information

Part No.	Specifications									Application
	Package	Datarate (Gb/s)	Laser	Optical Power (dBm)	Detector	Sensitivity (OMA) dBm	Top	Reach (m)	Other	
RTXM420-430	QSFP28	4*25.78	DFB	-6.5~2.3	PIN	-8.5	0~70°C	2000	DDM	100G CWDM4

Electric Ports Definition

Parameter	Symbol	Unit	Min	Typ	Max
Supply Voltage	V _{CC}	V	3.14	3.3	3.47
Supply Current	I _{CC}	mA			1000
Transmitter					

Input Differential Impedance	R_{IN}	Ω	90	100	100
Single Ended Data Input Swing	V_{IN}	mVp-p	350		800
Transmit Disable Voltage	V_{DIS}	V	2		3.5
Transmit Enable Voltage	V_{EN}	V	-0.3		0.8
Transmit Fault Assert Voltage	V_{FA}	V	2		3.5
Transmit Fault De-Assert Voltage	V_{FDA}	V	-0.3		0.8
Receiver					
Single Ended Data Output Swing	V_{OD}	mVp-p	185		900
LOS Fault	V_{LOSFT}	V	2		3.5
LOS Normal	V_{LOSNR}	V	-0.3		0.8