

100G QSFP28 DCO DWDM C-Band LC Duplex SMF

Variants

CH 51 CH 35 CH 50 CH 49 CH 48 CH 47 CH 46 CH 45 CH 44 CH 43 CH 42 CH 41 CH 39 CH 38 CH 37 CH 36 CH 34 CH 33 CH 32 CH 40 CH 31 CH 30 CH 29

Details

100G COHERENT DWDM TRANSCEIVER

Full C-Band Tunable • 100GE / OTU4 • DP-QPSK • Duplex LC • Up to 120KM

Product Overview

The **QSP-100COTU** is a high-performance **100G QSFP28 Digital Coherent Optics (DCO) DWDM transceiver** designed for data center interconnect, metro DWDM, long-haul and backhaul optical networks.

It supports **100GE / OTU4** client interfaces, full **C-Band tunable operation** based on the ITU-T G.694.1 grid, and coherent modulation for high-capacity transmission over OS2 single-mode fiber.

CLIENT INTERFACE

100GE / OTU4

LINE RATE

Up to 128G

WAVELENGTH

C-Band

Fully Tunable

DISTANCE

Up to 120KM

Unamplified

Key Features

? QSFP28 Digital Coherent Optics

? Full C-Band Tunable Wavelength

? 100GE / OTU4 Support

? DP-QPSK / DQPSK Modulation

? Duplex LC Optical Interface

? OS2 Single-Mode Fiber

? Up to 120KM Transmission

? Hot-Pluggable QSFP28 Form Factor

General Specifications

Parameter	Specification
Model	QSP-100COTU
Product Type	100G QSFP28 DCO Coherent Transceiver
Form Factor	QSFP28 Digital Coherent Optics
Applications	DCI, Metro DWDM, Long-Haul, Backhaul Networks
Connector	Duplex LC
Fiber Type	OS2 Single-Mode Fiber
Line Rate	Up to 128 Gb/s
Client Interface	100GE / OTU4
Modulation	DP-QPSK / DQPSK
Wavelength	Full C-Band Tunable – ITU-T G.694.1
Transmission Distance	Up to 120 km Unamplified
Power Supply	+3.3 V
Power Consumption	13 W (ST) / 15 W (IT)
Operating Temperature	ST: ?5°C to +70°C / IT: ?40°C to +85°C
Housing	Metal Enclosure – Low EMI
Hot Plug	Supported
Compliance	RoHS-6

Parameter	Specification
Laser Safety	Class I – FDA/CDRH, IEC 60825

Transmitter Optical Specifications

Parameter	Min.	Max.	Unit	
Output Power	-8	-5	dBm	
SMSR	40	—	dB	
Tx Power Accuracy	-2	+2	dB	
Tx Power Imbalance	—	2	dB	
Tx XY Skew	—	3	ps	
Tx IQ Imbalance	—	1	dB	
Tx Quadrature Error	-5	+5	°	
Tx IQ Skew	—	2	ps	
EVM Mask Ratio	—	18	%	
In-Band OSNR	40	—	dB/0.1nm	
Tx Reflectance	—	-22	dB	

Receiver Optical Specifications

Parameter	Min.	Max.	Unit
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Input Power Range	-20	+5	dBm	
Sensitivity	—	-32	dBm	
Chromatic Dispersion	—	10	ns/nm	
PMD Tolerance	—	16	ps	
PDL Penalty	—	1	dB	
SOP Tracking	—	100	kHz	
Rx Reflectance	—	-22	dB	
LOS Assert	-40	—	dBm	
LOS De-Assert	—	-32	dBm	
LOS Hysteresis	—	5	dB	
OSNR – Metro	16.5	—	dB/0.1nm	
OSNR – Long-Haul	15	—	dB/0.1nm	

Applications

- 100G Data Center Interconnect
- Metro DWDM Networks
- Long-Haul Networks
- ISP Backbone
- 100GE Transport

OTU4 Transport

Cloud Infrastructure

Backhaul Networks

Coherent DWDM Deployment

This is a **tunable coherent DWDM transceiver**. Host equipment compatibility, supported operating mode, ITU channel configuration, optical power budget and overall DWDM link design should be confirmed before deployment.