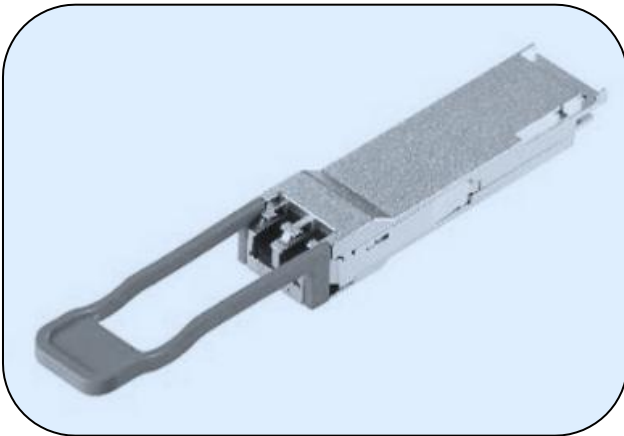


## XKDT74-COLY

QSFP-DD ZR 400G 120 km  
Coherent Transceiver



### Applications

- Data Center Interconnect and other connectivity (ZR) up to 120 km at 400 Gbps (Application code 0x01)

### Features

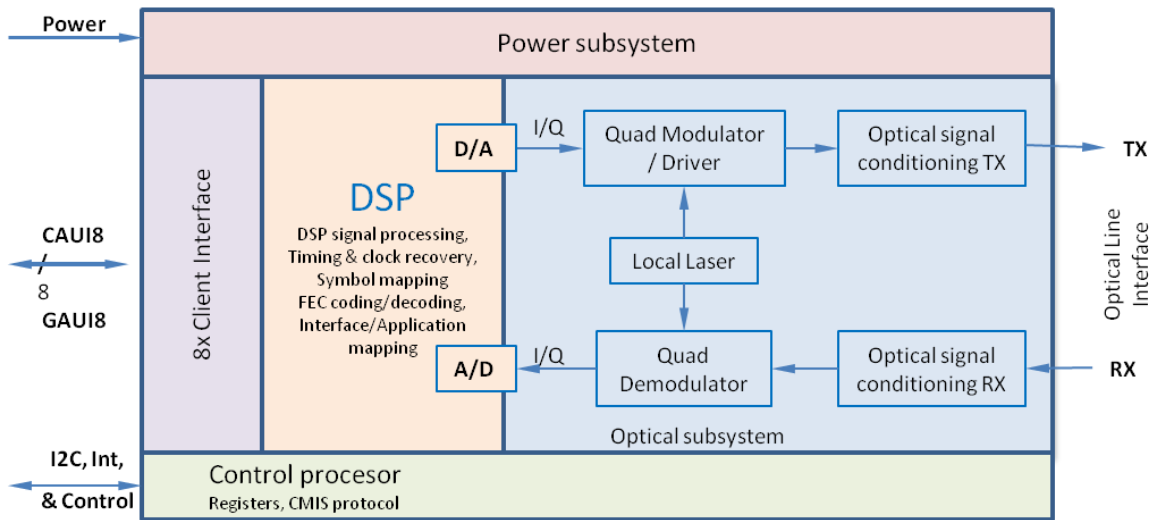
- Compliant to reliability requirements of Telcordia GR-468-CORE
- Hot-pluggable MSA Compliant QSFP-DD Type 2 extended form factor
- Compliant with OIF 400G ZR IA
- Module Thermal shutdown feature
- Low power, hi performance, 7 nm DSP
- C-band 25GHz grid spacing and 75GHz bandwidth support both 100 and 75 GHz channel spacing operation
- Duplex LC receptacles
- Operating Case Temperature 0°C to 75°C
- RoHS 6 compliant

### Description

XenOpt Coherent QSFP-DD 400G ZR combines all of the optical functions necessary for an optical transponder in a standard form factor compact pluggable module and is designed to be compliant with the Optical Internetworking Forum (OIF) Implementation Agreement and QSFP-DD MSA.

The module incorporates leading ultra-narrow linewidth external cavity tunable laser and its high performance COSA, exhibits low electrical power consumption and is suitable for multiple modulation formats. All signal digital processing is based on advanced, low power, high performance 7 nm DSP that provides QAM decoding/encoding, mapping and FEC functions on digital plane and provides embedded monitoring and analysis functions to ensure link and system level diagnostics compliant with the CMIS rev 5.1 and C-CMIS 1.1 requirements.

**Block Diagram**



**Absolute Maximum Ratings**

Exceeding any individual absolute maximum rating parameter may cause permanent damage to module.

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Storage Temperature	Ts	-40		85	°C	
Relative Humidity	RH	5		95	%	1
Operating case temperature				80	°C	

Note

1. Non-condensing

**Operating Conditions**

Electrical and optical characteristics below are defined under following operating conditions, unless otherwise specified.

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	Vcc	3.135	3.3	3.465	V
Case Temperature	Top	0	25	75	°C

### Module Key Specifications

Mode Specific Specifications	Value	Comments
Application	400G ZR	Per OIF 400 G ZR IA with extended performance
Total Power Consumption	≤ 19 W	Case temperature max of 75°C
Grid Spacing	75 GHz	100 GHz also supported
Network Lane, Baud Rate	59.84375 Gbaud/s DP-16QAM	
Line side Lane, FEC	C-FEC, OFEC	OSNR (B-B) 26 dB
Tx Output Power, Default	-9 dBm	-10 dBm guaranteed
Client Interface	400 GAUI8	53.125 Gbps, PAM4 (CEI 56-VSR) KP4 FEC
Channel Tuning Time	180 seconds	
Frequency Accuracy	+/-1.5 GHz	
Rx OSNR Tolerance	26 dB	
Rx Power Sensitivity	-18 dBm	Noise limited
CD Tolerance	2400 ps/nm	
Frequency Range	191.3 to 196.1 THz	75 or 100 GHz channel grid supported
SMSR	>40 dB	(Tx OSNR >45 dB IB, >40 dB OOB)
Rx input power	0 to -12 dBm	Meeting B-B OSNR spec
Operating Case Temperature	0 to 75°C	
Operating Humidity	5 to 95 % RH	Non condensing environment
Storage Temperature and Humidity	-40 to +85°C	Non condensing environment
Voltage Supply	3.135 V to 3.465 V	

## Ordering information<sup>1</sup>

Part number	Product Description
XKDT74-COLY	QSFP-DD ZR 400G, 120 km reach, LC, OFEC, 0°C~70°C, DDMI

### Notes

<sup>1</sup> For accurate order specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice. XenOpt does not guarantee errorless or outdated information.

Please specify any compatibility requirements at time of ordering. Standard MSA compatible pluggable components may not work or some function of these components may not be available in devices that require customized compatible devices. Pluggable components compatible with one type of communications equipment may not work in other type of communications equipment.

### Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract. In accordance with the XenOpt policy of continuous improvement specifications may change without notice.

The product image is only for reference purpose

The publication of information in this data sheet does not imply freedom from patent or other protective rights of XenOpt or others. Further details are available from any XenOpt sales representative.

To find out more, please contact: