

## smartoptics



DATASHEET



3 x 100/400G transponder

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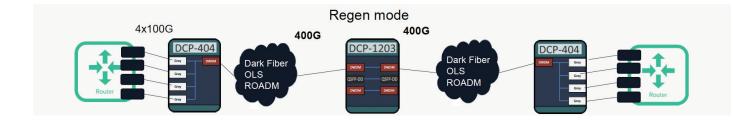
#### A TRANSPONDER FOR 100/400ZR+ DWDM APPLICATIONS

The DCP-1203 offers a cost efficient solution for 100G and 400G transport in a small form factor with low power consumption and low latency. It has three individual transponders on the same card. Each transponder can be used in 100G or 400G mode. The client side can use a flexible range of QSFP28 client types for 100G and QSFP-DD for 400G. The line side can use coherent DWDM 100GZR+, 400GZR and 400GZR+ QSFP-DDs.

The DCP-1203 is designed to handle two main use cases, one is to convert from grey 100/400G optics to DWDM and one where it is required to have demarcation point for signal hand-off. The first case is valid when it is not possible to put coherent DWDM 100G or 400G QSFP-DDs embedded in switches and routers. For the second case the transponder offers a demarcation point where it is possible to measure performance data before handing off the signal to another system.



It is also possible to use the DCP-1203 for regeneration with coherent DWDM QSFP-DDs on both client and line side. From a thermal and power perspective it is not allowed to use coherent QSFP-DDs on all 6 ports at the same time. It is allowed to use two repeaters at the same time, but then transponder number 2 should not be used at all.



DCP-1203 can also be used for breakout with 4x100G on the client side when DR4, FR4 or LR4 optics is used. Future release.



#### **DCP-1203 IN SHORT**

- Layer 1 Transponder for DCP-2 chassis
- Support for 3 individual transponders with 100/400G on each
- Support for 3 x QSFP28/QSFP-DD ports for client signals
- Support for a flexible range of 100G QSFP28 client type in 100G mode (SR4, LR4, CWDM4, ER4, ZR4)
- Support for a flexible range of 400G QSFP-DD client type in 400G mode (DR4, FR4, LR4 etc.)
- Support for regeneration on two individual transponders at the same time
- Support for 4x100G breakout from DR4, FR4 or LR4 optics (from R9.0)
- Support for 100G ZR+, 400G ZR and 400G ZR+ line rates
- Low power consumption
- Low latency Design

#### **ORDERING INFORMATION**

DCP Series product codes	
DCP-1203	3 x 100/400G Transponder, 1RU plug-in unit, Client port: 3xQSFP-DD, Line port: 3xQSFP-DD

### **TECHNICAL SPECIFICATIONS**

PRODUCT CONFIGURATION	3x 100/400G Transponder with QSFP28 and QSFP-DD
100G QSFP28	100G SR4 QSFP28
CLIENT INTERFACES	100G LR4 QSFP28
	100G CWDM4 QSFP28
	100G ER4 QSFP28
	100G ZR4 QSFP28
400G QSFP-DD	400G DR4
CLIENT INTERFACES	400G FR4
	400G LR4
LINE INTERFACES	100G OpenZR+ QSFP-DD
	400G ZR QSFP-DD
	400G OpenZR+ QSFP-DD (low power and high power)

Client LED: 3 x individual client Tx/Rx Line LED: 3 x individual line Tx/Rx   MANAGEMENT CLI, SSH, SNMPv2c, SNMPv3 NTP, SFTP, Syslog, RADIUS, TACACS+   TRAFFIC COMBINATIONS Line Xpeed 400GE Modulation QPSK 16QAM   SOFTWARE UPGRADES Traffic hitless software upgrades   SW FEATURES Line In-loop and Line Out-loop Link Loss Forwarding Performance Monitoring Size (WXDXH) 1.73 x 8.07 x 10.63° 44 x 205 x 270 mm Weight: 1.8 Kg / 4 lbs   POWER CONSUMPTION Typical consumption at 220VAC: Normal operation: 40 W Max during power up: TBD W Size Spread S									
NTP, SFTP, Syslog, RADIUS, TACACS+TRAFFIC COMBINATIONSClient 100GbELine Speed 100G 400GbEModulation QPSK 16QAMSOFTWARE UPGRADESTraffic hitless software upgradesSW FEATURESLine In-loop and Line Out-loop Link Loss Forwarding Performance MonitoringSize (WXDxH) 1.73 × 8.07 × 10.63° 44 × 205 × 270mm Weight: 1.8 Kg / 4 lbsPOWER CONSUMPTIONTypical consumption at 220VAC: Normal operation: 40 W Max during power up: TBD WNormal operation: 40 W Max during power up: TBD WLATENCY400G QSFP-DD CFEC: 8 µs 400G QSFP-DD OFEC: 5 µs 100G QSFP-DD OFEC: 5 µs 	VISUAL INDICATORS	Client LED:	Client LED: 3 x individual client Tx/Rx						
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SW FEATURES Line In-loop and Line Out-loop Link Loss Forwarding Performance Monitoring   DIMENSIONS Size (WxDxH) 1.73 x 8.07 x 10.63" 44 x 205 x 270mm Weight: 1.8 Kg / 4 lbs   POWER CONSUMPTION Typical consumption at 220VAC: Normal operation: 40 W Max during power up: TBD W   LATENCY 400G QSFP-DD CFEC: 8 µs 400G QSFP-DD OFEC: 5 µs 100G QSFP-DD OFEC: 5 µs   ING QSFP-DD OFEC: 11 µs Max TBD µs for the card   ENVIRONMENTAL Operating temp: 0°C to +45°C Cooling: Front to back Humidity: 5% to 85%	TRAFFIC COMBINATIONS	100GbE	100G	QPSK					
Link Loss Forwarding Performance MonitoringDIMENSIONSSize (WxDxH) 1.73 × 8.07 × 10.63" 44 × 205 × 270mm Weight: 1.8 Kg / 4 lbsPOWER CONSUMPTIONTypical consumption at 220VAC: Normal operation: 40 W Max during power up: TBD WLATENCY400G QSFP-DD CFEC: 8 µs 400G QSFP-DD OFEC: 5 µs 100G QSFP-DD OFEC: 11 µs Max TBD µs for the cardENVIRONMENTALOperating temp: 0°C to +45°C Cooling: Front to back Humidity: 5% to 85%	SOFTWARE UPGRADES	Traffic hitle	Traffic hitless software upgrades						
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Normal operation: 40 W Max during power up: TBD WLATENCY400G QSFP-DD CFEC: 8 µs 400G QSFP-DD OFEC: 5 µs 100G QSFP-DD OFEC: 11 µs Max TBD µs for the cardENVIRONMENTALOperating temp: 0°C to +45°C Cooling: Front to back Humidity: 5% to 85%	DIMENSIONS	1.73 x 8.07 44 x 205 x	x 10.63" 270mm						
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Cooling: Front to back Humidity: 5% to 85%	LATENCY	400G QSFF 100G QSFF	P-DD OFEC: 5 μs P-DD OFEC: 11 μs						
	ENVIRONMENTAL	Cooling: Fr Humidity: {	ront to back 5% to 85%	C					

\*\* The information in this document is valid from release R8.1

