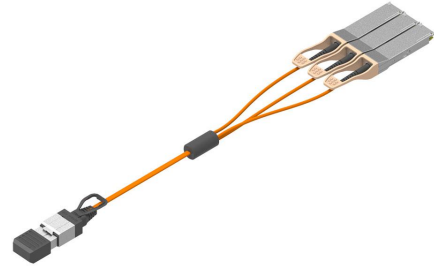


120G CXP to 3x 40G QSFP+ Breakout Active Optical Cables

P/N: GCQ-MDO121-xxxC (xxx: 001 to 100)

Features

- ◆ SFF-8642 and CXP MSA compliant CXP connector
- ◆ 3x SFF-8436 compliant QSFP+ connectors
- ◆ 12 channels full-duplex 850nm parallel active optical cable
- ◆ Transmission data rate up to 10.3Gbps per channel
- ◆ Hot-pluggable electrical interface
- ◆ Differential AC-coupled high speed data interface
- ◆ 12 channels 850nm VCSEL array
- ◆ 12 channels PIN photo-detector array
- ◆ Low power consumption < 2.5W (CXP) < 1.5W (QSFP+)
- ◆ Up to 100m on OM3 MMF
- ◆ Operating case temperature range 0°C to +70°C
- ◆ 3.3V power supply voltage
- ◆ RoHS-6 compliant (lead free)



Applications

- ◆ IEEE 802.3ba 40GBASE-SR4
- ◆ 12x 1G/2G/4G/8G/10G Fibre Channel
- ◆ 12x InfiniBand SDR/DDR/QDR
- ◆ PCIe

Description

The Gigalight 120G CXP to 3x 40G QSFP+ Breakout Active Optical Cables (AOCs) are direct-attach fiber assemblies with CXP connector that is compliant with the CXP MSA (120Gb/s interface specification for CXP transceiver) and QSFP+ connector that is compliant with the QSFP MSA. They are suitable for short distances and offer a cost-effective solution to connect within racks and across adjacent racks.

This breakout or splitter cable operates with 12 full-duplex lanes and each lane is capable of transmitting data rate at 10Gb/s, providing an aggregated rate of 120Gb/s. The length is up to 300 meters using OM3 MMF.

QSFP interface Specifications

Parameter	Description
Module Form Factor	QSFP+ (Supports SFF8436/SFF8472)
Channel Data Rate	Rate 40Gbps
BER	$<10^{-12}$
Operating Case Temperature	0 to + 70°C
Storage Temperature	-20 to + 85°C
Supply Voltage	3.3V nominal
Supply current	180mA per end typical
Management Interface Serial	I ² C (Supports SFF8472)

CXP interface Specifications

Parameter	Description
Module Form Factor	CXP (Supports SFF-8642)
Channel Data Rate	Rate 1 to 10.3125Gbps
BER	$<10^{-12}$
Operating Case Temperature	0 to + 70°C
Storage Temperature	-20 to + 85°C
Supply Voltage	3.3V nominal
Supply current	500mA maximum
Management Interface Serial	I ² C (Supports SFF8472)

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	-0.3	3.6	V
Input Voltage	Vin	-0.3	Vcc+0.3	V
Storage Temperature	Tst	-20	85	°C
Case Operating Temperature	Top	0	70	°C
Humidity(non-condensing)	Rh	5	95	%

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Supply Voltage	Vcc	3.13	3.3	3.47	V
Operating Case temperature	Tca	0		70	°C
Data Rate Per Lane	fd	2.5		10.3	Gbps
Humidity	Rh	5		85	%
Fiber Bend Radius	Rb	3			cm

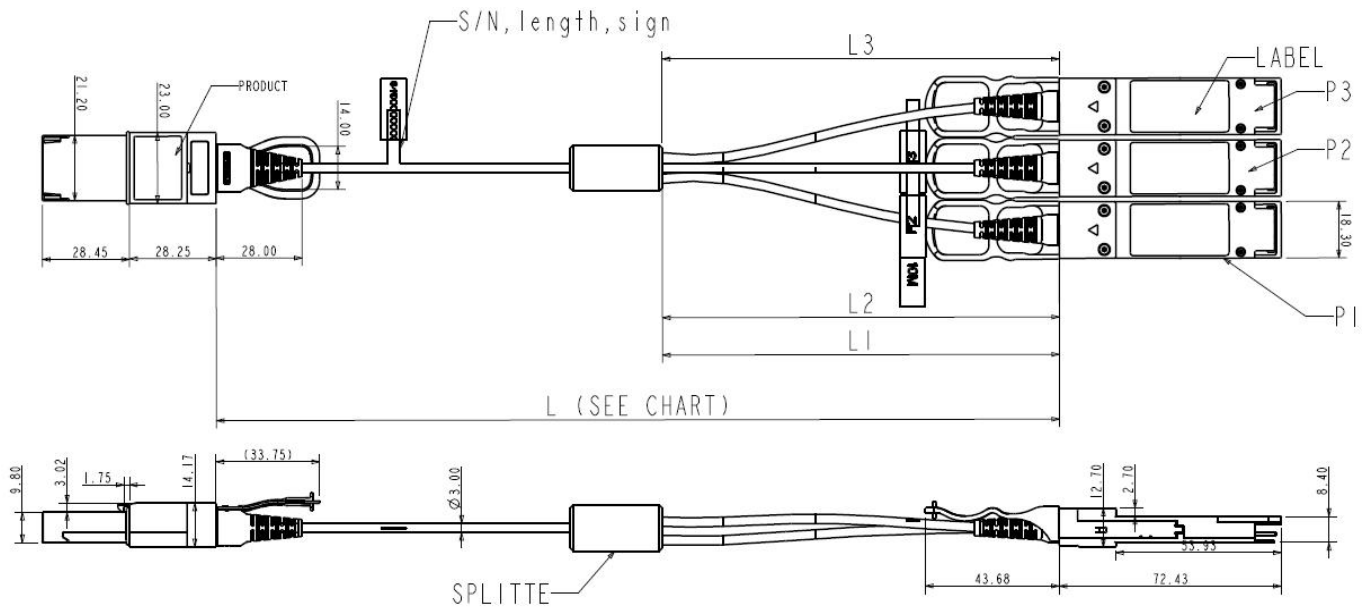
Specifications

Parameter	Symbol	Min	Typical	Max	Unit
Differential input impedance	Zin	90	100	110	ohm
Differential Output impedance	Zout	90	100	110	ohm
Differential input voltage amplitude	ΔV_{in}	300		1100	mVp-p
Differential output voltage amplitude	ΔV_{out}	500		800	mVp-p
Skew	Sw			300	ps
Bit Error Rate	BR			E-12	
Input Logic Level High	V _{IH}	2.0		VCC	V
Input Logic Level Low	V _{IL}	0		0.8	V
Output Logic Level High	V _{OH}	VCC-0.5		VCC	V
Output Logic Level Low	V _{OL}	0		0.4	V

Note:

1. BER=10⁻¹²; PRBS 2³¹-1@10.3125Gbps.
2. Differential input voltage amplitude is measured between TxNp and TxNn.
3. Differential output voltage amplitude is measured between RxNp and RxNn.

Mechanical Dimensions



Ordering information

Part Number	Product Description
GCQ-MDO121-xxxC	120G CXP to 3x 40G QSFP+ Breakout Active Optical Cables
xxx: 001 to 030, 1 to 30 length in meters using OM2 MMF	
xxx: 001~100, 1 to 100 length in meters using OM3 MMF	
Further details are available from any Gigalight sales representative.	

E-mail: sales@gigalight.com

Web : <https://www.gigalight.com/>