E.C.I.NETWORKS

Telecom Begins Here

Network Optics Solutions For Open Networking

Product Brochure, 2020

Company Profile

E.C.I. NETWORKS is System Integrator (SI) delivering the Open Networking solutions with the network optics you need for tomorrow's Data Center, Wired and 5G Networks. In addition, E.C.I. Networks is a leading Canadian low-cost supplier of high-quality MSA-compliant **Optical Transceivers, Direct Attached Cables (DAC), Active Optical Cables (AOC), Network Taps** and related solutions, combined with trusted expertise and support in configuring the right solution for your use-case.

NETWORK OPTICS & CABLES

E.C.I. Networks offers a complete range of network optics solutions, right up to 400Gb/s, in all form factors for Data Center, Access and 5G Wireless use cases, including xPON, CPRI/LTE and CWDM/DWDM solutions designed to drive new life, capacity and performance from existing fiber for new 5G, xPON, FTTx and Wireless-to-the-Home requirements.

NETWORK TAPS AND XWDM

• The TAPstack Series is a family of Passive and Secure Fiber Optic TAPs designed for accessing and copying live traffic in your high-speed networks. The TAPstack provides the network operators with the ability to rapidly and effectively deploy analysis tools to observe and monitor High Speed networks; 1Gb, 10Gb, 25G, 40Gb and 100Gb.

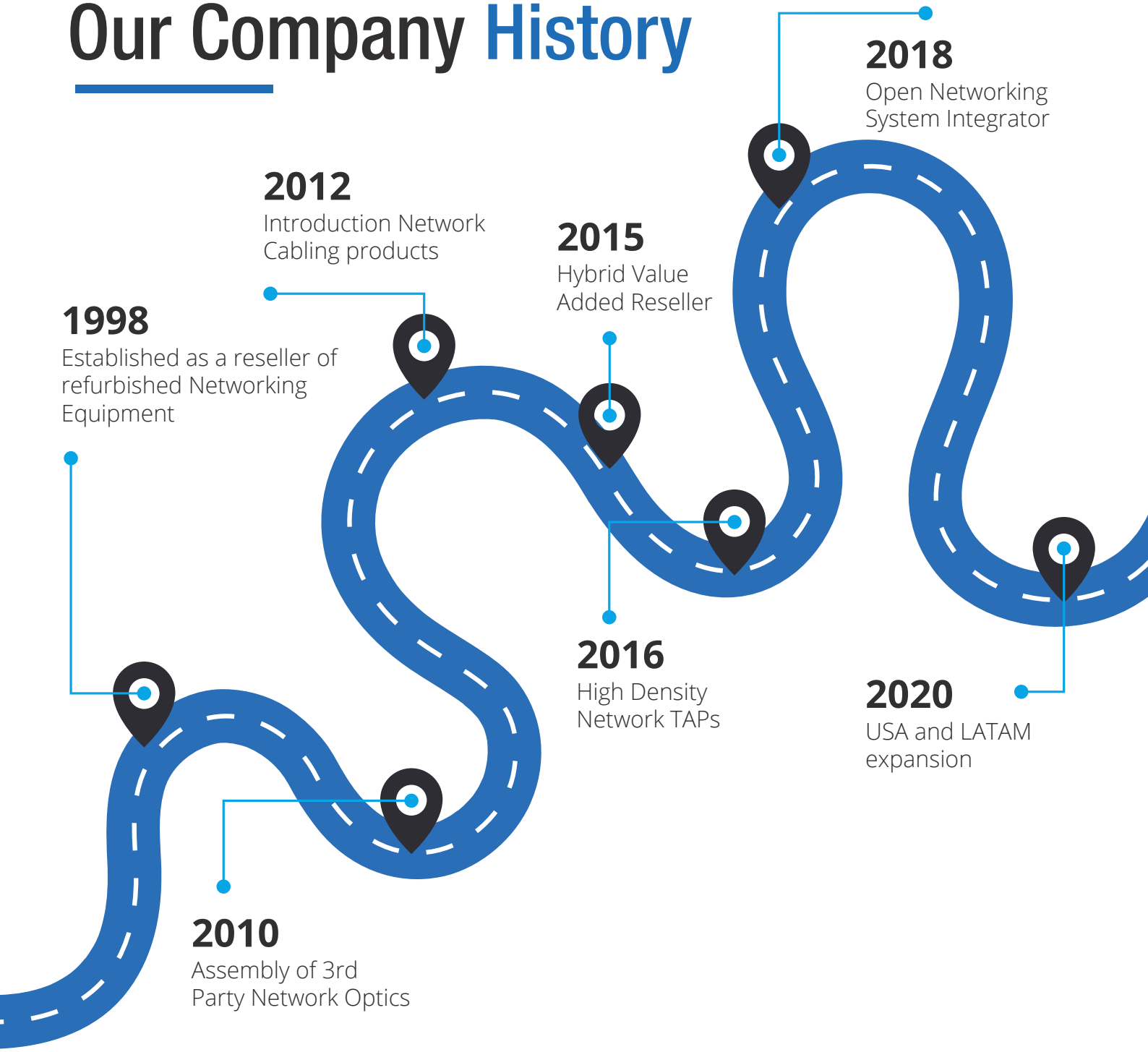
• The MOBstack Series is Cost-Effective xWDM product line of fully passive Multiplexer/Demultiplexer and Optical Add Drop multiplexer/demultiplexer (OADM) to maximize dark fiber utilization.

QUALITY

• All products are guaranteed, 100% compatible, with a no-hassle exchange policy. Our rigorous quality control procedures, strong R&D ability and extensive production experience ensure product quality.

• We strive for continuous improvement in developing and optimizing our product designs, to provide our valued customers with the most cost-efficient solutions to their network optics and TAPS requirements.

Our Company History



Established in 1998, E.C.I. Networks started as a value-added reseller (VAR) of Refurbished Networking equipment and datacom test tools, Cisco, 3Com, Smartbits, to name a few.

We noticed the price vs quantity needed for optical transceivers is a big concern for most customers. In 2010, we established manufacturing to assemble 3rd party optical transceiver and high-speed interconnect Cables.

400G QSFP-DD

DESCRIPTION:

E.C.I. Networks supports a full range of 400G optical transceivers, Active Optical Cables (AOCs) and Direct Attach Copper cables (DACs) in both OSFP and QSFP-DD form factors. QSFP-DD stands for "Quad Small Form-factor Pluggable (QSFP) – Double Density (DD)". The electrical interface of a QSFP-DD connector also has 8 electrical lanes, running at 50Gb/s each, for a total bandwidth of 400Gb/s. The QSFP-DD form factor is similar to the QSFP form factor, except a second row of electrical contacts has been added to increase the number of high-speed electrical lanes from 4 (in a QSFP) to 8 (in a QSFP-DD). The tables below summarize the 400G QSFP-DD connectivity options supported.

FEATURES:

- QSFP -DD MSA Compliant
- Supports 425 Gbps bps
- Single 3.3V Power Supply
- Power dissipation < 10W
- RoHS & REACH compliant
- 8x53.125 Gbps (PAM4) electrical interface
- Duplex LC connector
- Commercial case temperature range of 0°C to 70°C
- I2C interface with integrated Digital Diagnostic Monitor
- Safety Certification: TUV/UL/FDA

APPLICATIONS:

- High speed storage area networks
- SR8, DR4, FR4, LR4 applications
- 400G Ethernet and Cloud
- Other Optical Link

Part Number	Optical Modulation	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-QDD-SR8	50G PAM-4	100m	850nm	Parallel MMF MPO-16	'-6.0-4.0	'-7.9-4.0
EN-QDD-DR4	100G PAM-4	500m	1310nm	Parallel MMF MPO-12	'-2.9-4.0	'-5.9-4.0
EN-QDD-XDR4	100G PAM-4	2km	1310nm	Parallel MMF MPO-12	'-2.4-4.0	'-6.4-4.5
EN-QDD-FR4	100G PAM-4	2km	1310nm	SMF LC	'-3.3-3.5	'-7.3-3.5
EN-QDD-LR4	100G PAM-4	10km	1271/1291/1311/1331nm	SMF LC	'-1.4-4.5	'-7.7-4.5

400G QSFP-DD/QSFP-DD DAC/AOC CABLES (CUSTOM LENGTH IS AVAILABLE ON REQUEST)

Part Number	Data Rate	Length	AWG	Note
EN-QDDDAC-1M-xx	400G	1 Meter	26/30	Passive
EN-QDDDAC-2M-xx	400G	2 Meters	26/30	Passive
EN-QDDDAC-2.5M-xx	400G	2.4 Meters	26/30	Passive
EN-QDDAOC-1M-xx	400G	1 Meters	26/30	
EN-QDDAOC-2M-xx	400G	2 Meters	26/30	
EN-QDDAOC-3M-xx	400G	3 Meters	26/30	
EN-QDDAOC-5M-xx	400G	5 Meters	26/30	
EN-QDDAOC-7M-xx	400G	7 Meters	26/30	
EN-QDDAOC-10M-xx	400G	10 Meters	26/30	

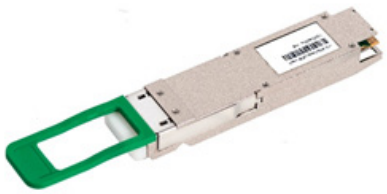
400G OSFP

DESCRIPTION:

E.C.I. Networks 2x200G-FR4 transceiver modules, according to 400 Gigabit Hot-pluggable OSFP Multi-Sourcing Agreement (MSA), are designed for use up to 8x50G PAM4 data rates over 2km single mode fiber. They are compliant with OSFP 400G and IEEE 802.3bs.

FEATURES:

- 8x50G PAM4 data rates
- Hot-pluggable OSFP form factor
- Power dissipation: <14W
- Electrical interface compliant with 400GAUI-8 as defined by IEEE 802.3bs
- I2C Management interface
- Control interface and memory map compliant with QSFP-DD MSA.
- Internal CDR on both Transmitter and Receiver channels
- OSFP MSA package with CS duplex connectors
- Uncooled 1270/1290/1310/1330 EML Laser
- Up to 2km on 9/125um SMF
- Single +3.3V power supply
- Class 1 laser safety certified
- Operating case temperature range: 0 to +70C
- RoHS6 Compliant



APPLICATIONS:

- High speed storage area networks
- 2x200G-FR4 applications
- 400G Ethernet and Cloud
- Other Optical Link

Part Number	Data Rate	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-OSFP400G-FR	2*200G	2Km	LAN WDM	QUAD CS	-1.2~4.5	-6

100G QSFP28

DESCRIPTION:

E.C.I. Networks 100G QSFP28 series includes SR4,CWDM4,LR4 and ER4 lite,using LC or MPO receptacle,with the features of QSFP28 MSA Compliant, IEEE802.3bm Compliant, low power consumption and high reliability,suitable for 100G data center networks and OTN networks.

FEATURES:

- Supports 103.1 / 112Gbps aggregate bit rates
- Single 3.3V Power Supply and Industry
- Lowest Power dissipation
- Up to 100m/300m transmission on MMF
- OM4 and 2/10/20/30km over SMF.
- Hot-Pluggable QSFP Footprint
- Class 1 FDA and IEC60825-1 Laser Safety Compliant
- RoHS6 Compliant
- Operating Case Temperature Standard: -5~+75C
- Compliant with QSFP MSA Specification
- I2C interface with integrated Digital Diagnostic Monitoring
- 4x25G electrical interface

APPLICATIONS:

- Data Center and LAN
- 100G Ethernet
- Other Optical Link

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-QSFP28-SR4	100G	100m	850nm	MTP/MPO	-8.4~2.4	-10.3
EN-QSFP28-eSR4	100G	300m	850nm	MTP/MPO	-8.4~2.4	-10.3
EN-QSFP28-CW4	100G	2Km	CWDM	LC	-6.5~2.5	-10
EN-QSFP28-PSM4	100G	2Km	1310nm	LC	-6.0~2.0	-10.1
EN-QSFP28-LR4	100G	10Km	LAN WDM	LC	-4.3~4.5	-10.6
EN-QSFP28-ER4L	100G	30Km	LAN WDM	LC	-2.5~4.5	-18.5
EN-QSFP28-ZR4	100G	80Km	LAN WDM	LC	TBD	TBD
EN-QSFP28-DR1	100G	500m	1310nm	LC	-2.9~4.0	'-5.9-4.0
EN-QSFP28-LR1	100G	10Km	1310nm	LC	-1.4~4.5	'-7.7-4.5

100G CFP4/CFP2/CFP

DESCRIPTION:

E.C.I. Networks have 100G CFP,CFP2,CFP4 series ,with the features of CFP/CFP2/CFP4 MSA□IEEE802.3ba Compliant, low power consumption and dual rate supporting.They can be compatible with Ethernet and OTU4 applications.

FEATURES:

- Supports 103Gbps and 112Gbps aggregate bit rates
- Single 3.3V Power Supply and Power dissipation < 5.5W
- Up to 10km, 40km transmission on SMF
- Hot-Pluggable CFP4 Footprint Duplex LC Connector Interface
- Class 1 FDA and IEC60825-1 Laser Safety Compliant
- RoHS6 Compliant
- Operating Case Temperature Standard: -5C~+75C
- Compliant with CFP4 MSA Specification
- MDIO interface with integrated Digital Diagnostic Monitoring
- No external reference clock
- 4x25G electrical interface

APPLICATIONS:

- OTU4 4I1-9D1F
- 100G Ethernet
- Other Optical Link

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-CFP4-SR4	100G	100km	850nm	MTP/MPO	-9.1~2.4	-5.2
EN-CFP4-LR4	100G	10km	LAN WDM	LC	-4.3~4.5	-8.6
EN-CFP4-ER4	100G	40km	LAN WDM	LC		

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-CFP2-SR10	100G	100km	850nm	MTP/MPO	-8~1	-9.9
EN-CFP2-LR4	100G	10km	LAN WDM	LC	-4.3~4.5	-8.6
EN-CFP2-ER4	100G	40km	LAN WDM	LC	-2.9~2.9	-21.4

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-CFP100G-SR10	100G	100km	850nm	MTP/MPO	-7.6~2.4	-9.5
EN-CFP100G-LR4	100G	10km	LAN WDM	LC	-4.3~4.5	-10.6
EN-CFP-ER4	100G	40km	LAN WDM	LC	-2.9~2.9	-21.4

50G QSFP28

DESCRIPTION:

E.C.I. Networks 50G PAM4 QSFP28,with the EML and PIN solution,supports the communication of 10km in the wireless network and comply with IEEE802.3cd, QSFP28 MSA, etc. The 50G QSFP28 comes with the feature of the low power dissipation, the excellent TDECQ and sensitivity which provide a reliable and cost effective solution to the customers..

FEATURES:

- 50Gb/s PAM4 should support maximum data rates 53.125Gbps
- 50Gb/s PAM4 electrical interface should be compliant with CEI-28G-VSR standard for LAUI-2 with 2x26Gb/s high-speed CML signal
- 50Gb/s PAM4 optical interface should be compliant with IEEE802.3cd
- 50Gb/s PAM4 should be compatible to industry standard Duplex LC receptacle
- 50Gb/s PAM4 should have cooled 26Gb/s
- TOSA and 26Gb/s PIN ROSA
- 50Gb/s PAM4 should have maximum power consumption less than 4.5W
- 50Gb/s PAM4 module dimensions should be compliant to QSFP28 MSA
- Be compliant to ROHS.

APPLICATIONS:

- High speed storage area networks
- Other Optical Link

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-QSFP50G-LR	50G	10km	1310nm	LC	-4.0~4.2	-8.8
EN-QSFP50G-ER	50G	40km	1310nm	LC	1.5~8	-15

40G QSFP+

DESCRIPTION:

E.C.I. Networks 40G QSFP+ series optical transceivers include 150m/400m SR4,2km/10km/30km LR4,using LC or MPO receptacle,with the features of IEEE802.3bm, SFF-8436 Compliant,low power consumption and and high reliability,suitable for 40G ethernet and data center.

FEATURES:

- QSFP+ MSA, SFF-8436 compatible
- Four independently addressable transmit and receive channels
- Electrically hot-pluggable
- Digital Diagnostics Monitoring Interface. allows customer management and monitoring of key modules parameters, analogous to SFP+
- Optical connectivity via industry standard
- MPO/MTP terminated fiber ribbon

APPLICATIONS:

- 40G Ethernet
- Data Center
- InfiniBand SDR, DDR and
- QDR applications

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-QSFP40G-SR4	40G	100m	850nm	MTP/MPO	-7.6~0.5	-9.5
EN-QSFP40G-eSR4	40G	300m	850nm	MTP/MPO	-7.6~1	-9.9
EN-QSFPP-PIR	40G	2Km	1310nm	MTP/MPO	-5.2~0.5	-12.6
EN-QSFP-PLR4	40G	10Km	1310nm	MTP/MPO	-6.2~0.5	-12.6
EN-QSFP40G-LX4	40G	150m/2Km	CWDM	LC	-7~2.3	-10
EN-QSFP40G-IR4	40G	2Km	CWDM	LC	-7~2	-11.5
EN-QSFP40G-LR4	40G	10Km	CWDM	LC	-7~2.3	-11.5
EN-QSFP40G-ER4L	40G	30Km	CWDM	LC	-2~2.3	-12
EN-QSFPP-BX	40G	100m	850nm	LC	-4~5	-7

25G SFP28

DESCRIPTION:

E.C.I. NETWORKS provides a full range of optimized 25G optical transceiver solutions for 5G wireless market and works closely with our domestic and International customers to address their application demands.

FEATURES:

- Up to 25.78, 27.95, 28.05 Gb/s bi-directional data links
- Build-in CDR
- Hot-pluggable SFP+ footprint
- Built-in digital diagnostic functions
- Duplex LC connector
- RoHS compliant
- Metal enclosure, for lower EMI
- Single 3.3V power supply
- Operating temperature range: 0°C to 70°C or -10°C to 70°C

APPLICATIONS:

- 25.78 Gb/s single lane 100GE SR4
- OUT4
- 32G Fiber Channel
- CPRI Option 10

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-SFP28-SR	25G	100m	850nm	LC	-9.1~2.4	-11
EN-SFP28-IR	25G	300m	1310nm	LC	-7~2	-10
EN-SFP28-LR	25G	10Km	1310nm	LC	-5~2	-10.6
EN-SFP28-ER	25G	40KM	1310nm	LC	-1.6~6	-19.6
EN-SFP28-BXU10	25G	10KM	1270nm/1330nm	LC	-5~2	-18
EN-SFP28-BXD10	25G	10KM	1330nm/1270nm	LC	-5~2	-18
EN-SFP28-BXU30	25G	30KM	1270nm/1330nm	LC	0~5	-13.3
EN-SFP28-BXD30	25G	30KM	1330nm/1270nm	LC	0~5	-13.3

10G SFP+

DESCRIPTION:

E.C.I. Networks 10G SFP+ porfolio includes SR, LR, ER, ZR, ZRP and BiDi Series compliant with MSA, SFF-8472, SFF-8431, comes with low power consumption, commercial or industrial operation temperature and high reliability, suitable for DC, Metro, and Wireless networks.

FEATURES:

- Compliant to SFP+ Electrical MSA SFF-8431
- Compliant to SFP+ Mechanical MSA SFF-8432
- Multi rate of up to 11.3Gb/s
- 10G Ethernet compliance or SDH/SONET
- Transmission distance up to 100km (SM fiber)
- Low power consumption
- Laser Class 1 IEC / CDRH compliant
- RoHS 6/6 compliant
- Compliant with product safety standards

APPLICATIONS:

- 10GBASE-SR, LR, ER, ZR, ZRP at 10.31 /11.1Gbps
- SDH/SONET
- 1/10G and Multirate
- 1G/2G/4G/8G Fiber Channel
- Other optical links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-SFP10G-SR	10G	300m	850nm	LC	-6~-1	-10
EN-SFP10G-LR	10G	10Km	1310nm	LC	-6~-0.5	-14.4
EN-SFP10G-ER	10G	40Km	1550nm	LC	-1~3	-16
EN-SFP10G-ZR	10G	80Km	1550nm	LC	-1~4	-23
EN-SFP10G-ZRP	10G	100Km	1550nm	LC	1~5	-25
EN-SFP10G-SRSX	1G/10G	300m	850nm	LC	-6 ~-1	-10
EN-SFP10G-LRLX	1G/10G	10Km	1310nm	LC	-6 ~-0.5	-14.4
EN-SFP10G-RJ45	10G	30m	-	RJ45	-	-

10G SFP+ BIDI

FEATURES:

- One Fiber Bi-Di SFP+ Optical Transceiver, BiDi WDM SFP+
- Up to 11.3 Gbps Bi-directional Data Links
- Fully Compliant with SFP+ MSA
- Compliant to IEEE 802.3ae 10GBASE-BX
- SFF-8472 Digital Diagnostic Function
- Simplex LC Connector
- Distance Up to 10, 20, 40, 60, 80 km
- Only Required +3.3 V Power Supply
- RoHS Compliant
- -40 to 85C or 0 to 70C case operation temperature range

APPLICATIONS:

- 10GBASE-BX at 10.3125 / 11.1 / 11.3 Gb/s
- 10GBASE-BX at 9.953 Gb/s
- 1000 Base-LX Ethernet
- 1G/2G/4G/8G Fiber Channel
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-SFP10G-BXU10	10G	10Km	1270nm/1330nm	LC	-6 ~ -1	-14.4
EN-SFP10G-BXD10	10G	10Km	1330nm/1270nm	LC	-6 ~ -1	-14.4
EN-SFP10G-BXU20	10G	20Km	1270nm/1330nm	LC	-6 ~ -0.5	-15
EN-SFP10G-BXD20	10G	20KM	1330nm/1270nm	LC	-6 ~ -0.5	-15
EN-SFP10G-BXU40	10G	40KM	1270nm/1330nm	LC	0 ~ 5	-15
EN-SFP10G-BXD40	10G	40KM	1330nm/1270nm	LC	0 ~ 5	-15
EN-SFP10G-BXU60	10G	60KM	1270nm/1330nm	LC	0 ~ 5	-20
EN-SFP10G-BXD60	10G	60KM	1330nm/1270nm	LC	0 ~ 5	-20
EN-SFP10G-BXU80	10G	80KM	1490nm/1550nm	LC	0 ~ 4	-23
EN-SFP10G-BXD80	10G	80KM	1550nm/1490nm	LC	0 ~ 4	-23

10G XFP

DESCRIPTION:

E.C.I. Networks 10G XFP porfolio includes SR, LR, ER, ZR and BiDi Series compliant with MSA, SFF-8472, SFF-8431, comes with low power consumption, commercial or industrial operation temperature and high reliability, suitable for DC, Metro, and Wireless networks.

FEATURES:

- Supports 8.5G, 9.95Gb/s to 11.3Gb/s bit rates
- IEC 60825-1 Class 1/CDRH Class 1 laser eye safety.
- Hot-pluggable XFP footprint
- Maximum link length of 80km
- XFI Loopback Mode
- Duplex LC connector
- Low Power dissipation
- Built-in digital diagnostic functions, DDMI
- Temperature range -5°C to 70°C or Indutrial
- Temperature range on request

APPLICATIONS:

- SONET OC-192 / SDH STM-64
- ITU-T G.709
- 10GBASE-SR/LR/ER/EW/ZR
- 10GBASE-SR/LR/ER/EW/ZR+ FEC
- 1G/2G/4G/8G Fiber Channel
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-XFP10G-SR	10G	300m	850nm	LC	-6~-1	-10
EN-XFP10G-LR	10G	10Km	1310nm	LC	-6~-1	-15
EN-XFP10G-ER	10G	40Km	1550nm	LC	-1~4	-16.5
EN-XFP10G-ZR	10G	80Km	1550nm	LC	0~5	-24
EN-XFP10G-ZRP	10G	100Km	1550nm	LC	0~5	-25

10G XFP BIDI

FEATURES:

- One Fiber Bi-Directional XFP Optical Transceiver, BiDi WDM XFP
- Fully Compliant with XFP MSA
- Compliant to IEEE 802.3ae 10GBASE-BX
- SFF-8472 Digital Diagnostic Function
- Simplex LC Connector
- Distance Up to 10, 20, 40, 60, 80km
- XFI Loopback Mode
- No reference Clock required
- RoHS Compliant
- -5 to 70C Operating
- Simplex LC Connector

APPLICATIONS:

- 10GBASE-BX at 10.3125/ 11.3 Gb/s
- 10GBASE-BX at 9.953 Gb/s
- 8.5G Fiber Channel
- Other optical links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-XFP10G-BXU10	10G	10Km	1270nm/1330nm	LC	-5 ~ 0	-15
EN-XFP10G-BXD10	10G	10Km	1330nm/1270nm	LC	-5 ~ 0	-15
EN-XFP10G-BXU20	10G	20Km	1270nm/1330nm	LC	-2 ~ 3	-15
EN-XFP10G-BXD20	10G	20KM	1330nm/1270nm	LC	-2 ~ 3	-15
EN-XFP10G-BXU40	10G	40KM	1270nm/1330nm	LC	0 ~ 5	-15
EN-XFP10G-BXD40	10G	40KM	1330nm/1270nm	LC	0 ~ 5	-15
EN-XFP10G-BXU60	10G	60KM	1270nm/1330nm	LC	0 ~ 5	-20
EN-XFP10G-BXD60	10G	60KM	1330nm/1270nm	LC	0 ~ 5	-20
EN-XFP10G-BXU80	10G	80KM	1490nm/1550nm	LC	0 ~ 4	-24
EN-XFP10G-BXD80	10G	80KM	1550nm/1490nm	LC	0 ~ 4	-24

10G CWDM/DWDM

DESCRIPTION:

E.C.I. NETWORKS 10G CWDM/DWDM SFP+ or XFP optical transceiver modules are designed for 10G Ethernet, 10G Fibre Channel, SDH STM-64 and OTN OTU2e links reach up to 10km-80km over Single-Mode Fiber (SMF).

FEATURES:

- 10Gb/s serial optical interface compliant to 802.3ae
- Electrical interface compliant to SFF-8431
- Compliant with SFF-8472
- Digital diagnostic monitoring interface for optical transceivers Eye Safety
- Designed to meet Laser Class 1 Compliant with IEC60825-1
- Operating case temperature: -5 to 70C
- Metal enclosure for low EMI
- Low power consumption
- Single +3.3V power supply

APPLICATIONS:

- 10G Ethernet
- 10G Fiber Channel
- CWDM/DWDM networks and systems
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-SFP10G-CW20-Cxx	10G	20Km	1270nm~1610nm	LC	-3~5	-14
EN-SFP10G-CW40-Cxx	10G	40Km	1470nm~1610nm	LC	-1~3	-16
EN-SFP10G-CW80-Cxx	10G	80Km	1470nm~1610nm	LC	-1~4	-23
EN-SFP10G-DW40-Cxx	10G	40Km	1528.77nm~1563.86nm	LC	-1~3	-16
EN-SFP10G-DW80-Cxx	10G	80Km	1528.77nm~1563.86nm	LC	-1~4	-23
EN-SFP10G-T50-ZR	10G	80Km	1568nm~1529nm	LC	-1~3	-23

10G XFP CWDM/DWDM

FEATURES:

- Support 9.95Gb/s to 11.1Gb/s bit rates
- Below 2.5W power dissipation
- XFP MSA package with duplex LC connector
- Digital Diagnostic Monitor interface
- Very low EMI and excellent ESD protection
- Up to 80Km on 9/125um SMF
- Operating temperature range 0 to 70C
- No reference clock requirement

APPLICATIONS:

- 10G Ethernet
- 10G Fiber Channel
- CWDM/DWDM networks and systems
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-XFP10G-CW20-Cxx	10G	20Km	1270nm~1610nm	LC	-3~5	-14
EN-XFP10G-CW40-Cxx	10G	40Km	1470nm~1610nm	LC	-1~4	-16.5
EN-XFP10G-CW80-Cxx	10G	80Km	1470nm~1610nm	LC	0~4	-24
EN-XFP10G-DW40-Cxx	10G	40KM	1528.77nm~1563.86nm	LC	-1~4	-16.5
EN-XFP10G-DW80-Cxx	10G	80KM	1528.77nm~1563.86nm	LC	0~5	-24
EN-XFP10G-T50-ZR	10G	80KM	1568nm~1529nm	LC	-1~4	-24

SFP

FEATURES:

- Compliant with specifications for IEEE802.3Z
- Multi-Source package with duplex LC connector
- Eye Safety Designed to meet Laser Class1
- Compliant with IEC60825-1
- Single +3.3V Power Supply
- Hot-Pluggable
- Monitoring interface compliant with SFF-8472
- Complies with Bellcore TA-NWT-000983

APPLICATIONS:

- Ethernet Network
- Fiber Channel
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-SFP1G-SX	1.25G	550Km	850nm	LC	-9 ~ -3	-17
EN-SFP1G-LX	1.25G	10Km	1310nm	LC	-9 ~ -3	-20
EN-SFP1G-EX	1.25G	40Km	1550nm	LC	-9 ~ -3	-20
EN-SFP1G-LH	1.25G	70Km	1550nm	LC	-5 ~ 0	-26
EN-SFP1G-ZX	1.25G	80Km	1550nm	LC	-5 ~ 0	-26
EN-SFP1G-CDL100	1.25G	100Km	1550nm	LC	-5 ~ 0	-28
EN-SFP1G-CDL120	1.25G	120Km	1550nm	LC	-5 ~ 0	-31
EN-SFP1G-CDL160	1.25G	160Km	1550nm	LC	-1 ~ 6	-33
EN-SFP3G-SR	2.125G/2.5G	500m	850nm	LC	-10 ~ -3	-18
EN-SFP3G-LRM	2.125G/2.5G	2Km	1310nm	LC	-9 ~ -3	-18
EN-SFP3G-LR	2.125G/2.5G	20Km	1310nm	LC	-5 ~ 0	-19
EN-SFP3G-ER	2.125G/2.5G	40Km	1310nm	LC	-2 ~ 3	-19
EN-SFP3G-ZR	2.125G/2.5G	80Km	1550nm	LC	0 ~ 5	-28
EN-SFP3G-ZRP	2.125G/2.5G	120Km	1550nm	LC	1~ 6	-30
EN-SFP4G-02	4G	300m	850nm	LC	-9 ~ -2.5	-16
EN-SFP4G-5	4G	5Km	1310nm	LC	-6 ~ -1	-18
EN-SFP4G-10	4G	10Km	1310nm	LC	-6 ~ -1	-18
EN-SFP4G-40	4G	40Km	1310nm	LC	-1 ~ 4	-18
EN-SFP1G-RJ45	1000M	100m	-	RJ45	-	-
EN-SFP-RJ45	10/100/1000M	100m	-	RJ45	-	-
EN-SFP-GE-T	10/100/1000M	100m	-	RJ45	-	-
EN-SFP-RJ45-3	10/100/1000M	100m	-	RJ45	-	-
EN-SFP-RJ45-4	10/100/1000M	100m	-	RJ45	-	-

SFP BIDI

FEATURES:

- Up to 120Km on 9/125um SMF
- Standard serial ID information compliant with SFP MSA
- SFP MSA package with simplex LC connector
- Digital Diagnostic Monitor Interface
- Very low EMI and excellent ESD protection
- Single +3.3V Power Supply
- Hot-Pluggable
- RoHS Compliant

APPLICATIONS:

- Ethernet Network
- Fiber Channel
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-BX35-CDL-20	1.25G	20Km	1310nm/1550nm	LC	-9 ~ -3	-20
EN-BX53-CDL-20	1.25G	20Km	1550nm/1310nm	LC	-9 ~ -3	-20
EN-BX34-CDL-20	1.25G	20Km	1310nm/1490nm	LC	-9 ~ -3	-20
EN-BX43-CDL-20	1.25G	20KM	1490nm/1310nm	LC	-9 ~ -3	-20
EN-BX35-CDL-20	1.25G	40KM	1310nm/1550nm	LC	-5 ~ 0	-24
EN-BX53-CDL-20	1.25G	40KM	1550nm/1310nm	LC	-5 ~ 0	-24
EN-BX34-CDL-20	1.25G	40KM	1310nm/1490nm	LC	-5 ~ 0	-24
EN-BX43-CDL-20	1.25G	40KM	1490nm/1310nm	LC	-5 ~ 0	-24
EN-BX45-CDL-80	1.25G	80KM	1490nm/1550nm	LC	0 ~ 5	-26
EN-BX54-CDL-80	1.25G	80KM	1550nm/1490nm	LC	0 ~ 5	-26
EN-BX45-CDL-120	1.25G	120KM	1490nm/1550nm	LC	0 ~ 5	-31
EN-BX54-CDL-120	1.25G	120KM	1550nm/1490nm	LC	0 ~ 5	-31

SFP CWDM/DWDM

FEATURES:

- CWDM/DWDM Laser diode transmitter
- PIN/APD photodiode receiver
- Up to 120Km on 9/125um SMF
- Standard serial ID information compliant with SFP MSA
- SFP MSA package with duplex LC connector
- Digital Diagnostic Monitor Interface
- Very low EMI and excellent ESD protection
- High transmission margin
- Single +3.3V Power Supply
- Hot-Pluggable
- RoHS Compliant

APPLICATIONS:

- CWDM/DWDM networks and systems
- Fiber Channel
- Other Optical Links

Part Number	Data Reach	Reach	Wavelength (nm)	Interface	Standard (dBm)	
					Tx Output	Rx Sensitivity
EN-CW1G20-Cxx	1.25G	20Km	1270nm~1610nm	LC	-9 ~ -3	-20
EN-CW1G40-Cxx	1.25G	40Km	1470nm~1610nm	LC	-5 ~ 0	-24
EN-CW1G80-Cxx	1.25G	80Km	1470nm~1610nm	LC	0 ~ 5	-26
EN-CW1G120-Cxx	1.25G	120Km	1470nm~1610nm	LC	0 ~ 5	-31
EN-SFPCW40-Cxx	1.25G/2.5G	40Km	1470nm~1610nm	LC	-2 ~ 3	-19
EN-SFPCW80-Cxx	1.25G/2.5G	80Km	1470nm~1610nm	LC	0 ~ 5	-28
EN-SFPCW120-Cxx	1.25G/2.5G	120Km	1470nm~1610nm	LC	1 ~ 6	-30
EN-DW1G20-Cxx	1.25G	20Km	1528.77nm~1563.86nm	LC	-2 ~ 3	-24
EN-DW1G40-Cxx	1.25G	40Km	1528.77nm~1563.86nm	LC	-2 ~ 3	-24
EN-DW1G80-Cxx	1.25G	80Km	1528.77nm~1563.86nm	LC	0 ~ 4	-26
EN-DW1G120-Cxx	1.25G	120Km	1528.77nm~1563.86nm	LC	0 ~ 5	-32
EN-SFPDW40-Cxx	1.25G/2.5G	40Km	1528.77nm~1563.86nm	LC	-2 ~ 3	-19
EN-SFPDW80-Cxx	1.25G/2.5G	80Km	1528.77nm~1563.86nm	LC	0 ~ 4	-28
EN-SFPDW120-Cxx	1.25G/2.5G	120Km	1528.77nm~1563.86nm	LC	0 ~ 5	-30

DAC/AOC INTERCONNECT CABLES

E.C.I. Networks provide a full range of 10G/40G/100G/400G Active Optical Cables (AOCs) and Direct Attach Copper cables (DACs) in multiple including SFP, QSFP, OSFP and QSFP-DD form factors. The tables below summarize the AOC/DAC connectivity options supported.

DAC/AOC INTERCONNECT CABLES

DESCRIPTION:

E.C.I. Networks QSFP+28 Passive copper cable assembly features eight differential copper pairs, providing four data transmission channels at speeds up to 28Gbps per channel, and meets 100G Ethernet (4x25Gbps) and InfiniBand EDR (Enhanced Data Rate) requirements. These 100G copper cable assembly features a unique construction with individually wrapped twinax pairs, resulting in low insertion loss and low cross talk.

FEATURE AND APPLICATION:

- Support aggregate data rates of 100Gbps
- Low insertion loss and cross talk
- Low EMI radiation switches, servers and routers
- Data center networks
- Storage area networks
- High performance computing
- Telecommunication and wireless infrastructure
- Medical diagnostics and networking
- Test and measurement equipment

STANDARDS COMPLIANCE:

- 100G Ethernet (IEEE 802.3bj)
- InfiniBand EDR
- SFF-8665
- RoHS Compliant

Part Number	Data Rate	Reach	Length	AWG	Note
EN-Q28DAC-1M-xx	100G	20Km	1 Meter	26/30	Passive
EN-Q28DAC-2M-xx	100G	20Km	2 Meters	26/30	Passive
EN-Q28DAC-3M-xx	100G	20Km	3 Meters	26	Passive
EN-Q28DAC-5M-xx	100G	20KM	5 Meters	26	Passive
EN-Q28DAC-3MA-xx	100G	40KM	3 Meters	30	Active
EN-Q28DAC-5MA-xx	100G	40KM	5 Meters	30	Active
EN-Q28DAC-7MA-xx	100G	40KM	7 Meters	30	Active
EN-Q28DAC-10MA-xx	100G	40KM	10 Meters	26	Active

100G QSFP+28 DAC BREAKOUT (100GB/S QSFP28 TO 4XSFP28)

APPLICATION:

- Low EMI radiation switches, servers and routers;
- Data center networks;
- Storage area networks;
- High performance computing;
- Telecommunication and wireless infrastructure
- Medical diagnostics and networking;
- Test and measurement equipment;

STANDARD COMPLIANCE

- 100G Ethernet (IEEE 802.3bj)
- InfiniBand EDR
- SFF-8665/SFF-8636
- RoHS Compliant

Part Number	Data Rate	Length	AWG	Note
EN-Q28DACBO-1M-xx	100G/4x28G	1 Meter	28/30	Passive
EN-Q28DACBO-2M-xx	100G/4x28G	2 Meters	28/30	Passive
EN-Q28DACBO-3M-xx	100G/4x28G	3 Meters	28	Passive
EN-Q28DACBO-5M-xx	100G/4x28G	5 Meters	28	Passive

40G QSFP+ DAC

DESCRIPTION:

E.C.I. Networks QSFP+ direct attach copper cable assembly is high-speed, cost-effective alternative to fiber optics in Ethernet, Fiber channel and InfiniBand technology applications. These cable assemblies are designed to meet emerging data center and high performance computing application and support bandwidth transmission requirements as defined by IEEE 802.3ba (40Gb/s) and Infiniband QDR (4X10Gb/s per channel) specifications. The QSFP+ copper cable form factor uses 8 differential pairs 4 data transmission channels.

APPLICATION:

- InfiniBand 4xSDR, DDR, QDR;
- 10G/40G Ethernet;
- 10G/40G Fiber Channel;
- Rack-to-Rack, Shelf-to-Shelf Interconnect Top of Rack (TOR) and Core Switch;
- Networking, Storage;
- Hubs, Swithes, Routers, Servers;

STANDARD COMPLIANCE

- Electrical: IBTA V2 Revision 1.2.1 and 1.3;
- IEEE 802.3ba;
- SFF-8436
- RoHS

Part Number	Data Rate	Length	AWG	Note
EN-QDAC-1M-xx	40G	1 Meter	28/30	Passive
EN-QDAC-2M-xx	40G	2 Meters	28/30	Passive
EN-QDAC-3M-xx	40G	3 Meters	28/30	Passive
EN-QDAC-5M-xx	40G	5 Meters	26	Passive
EN-QDAC-7M-xx	40G	7 Meters	24/26	Passive
EN-QDAC-5MA-xx	40G	5 Meters	30	Active
EN-QDAC-7MA-xx	40G	7 Meters	26/28	Active
EN-QDAC-10MA-xx	40G	10 Meters	26/28	Active

40G QSFP+ DAC BREAKOUT (40GB/S QSFP+ TO 4XSFP+)

APPLICATION:

- InfiniBand 4xSDR, DDR, QDR;
- 10G/40G Ethernet;
- 10G/40G Fiber Channel;
- Rack-to-Rack, Shelf-to-Shelf Interconnect Top of Rack (TOR) and Core Switch;
- Networking, Storage;
- Hubs. Swithes, Routers, Servers;

STANDARDS COMPLIANCE:

- Electrical: IBTA V2 Revision 1.2.1 and 1.3;
- IEEE 802.3ba;
- SFF-8436
- RoHS

Part Number	Data Rate	Length	AWG	Note
EN-QDACBO-1M-xx	40G/4x10G	1 Meter	30	Passive
EN-QDACBO-2M-xx	40G/4x10G	2 Meters	30	Passive
EN-QDACBO-3M-xx	40G/4x10G	3 Meters	30	Passive
EN-QDACBO-5M-xx	40G/4x10G	5 Meters	26	Passive
EN-QDACBO-7M-xx	40G/4x10G	7 Meters	26	Passive
EN-QDACBO-3MA-xx	40G/4x10G	3 Meters	30	Active
EN-QDACBO-5MA-xx	40G/4x10G	5 Meters	28/30	Active
EN-QDACBO-7MA-xx	40G/4x10G	7 Meters	28	Active
EN-QDACBO-10MA-xx	40G/4x10G	10 Meters	26	Active

25G SFP28 DAC

FEATURE AND APPLICATION:

- Up to 25.88243 Gbps data rate;
- Hot-pluggable SFP 20PIN footprint;
- Improved Pluggable Form Factor(IPF);
- Temperature Range: 0~ 70°C;
- 25G Ethernet and 28G Fiber Channel
- Networking, Storage;

STANDARDS COMPLIANCE:

- IEEE P802.3by;
- SFF-8402;
- SFF-8432;
- RoHS

Part Number	Data Rate	Length	AWG	Note
EN-S28-DAC-1M-xx	25G	1 Meter	26/30	Passive
EN-S28-DAC-2M-xx	25G	2 Meters	26/30	Passive
EN-S28-DAC-3M-xx	25G	3 Meters	26/30	Passive
EN-S28-DAC-4M-xx	25G	4 Meters	26	Passive
EN-S28-DAC-5M-xx	25G	4 Meters	26	Passive

10G SFP+ DAC (TWINAX)

APPLICATION:

- InfiniBand SDR, DDR, QDR;
- 10G Ethernet;
- 8G/10G Fiber Channel;
- FCoE 10G
- Networking, Storage;
- Hubs. Swithes, Routers, Servers;

STANDARDS COMPLIANCE:

- IEEE 802.3ae;
- Electrical: SFF-8431, SFF-8083;
- Mechanical: SFF-8432;
- EEPROM: SFF-8472;
- RoHS

Part Number	Data Rate	Length	AWG	Note
EN-SFPP-DAC-1M-xx	10G	1 Meter	24/28/30	Passive
EN-SFPP-DAC-2M-xx	10G	2 Meters	24/28/30	Passive
EN-SFPP-DAC-3M-xx	10G	3 Meters	24/28/30	Passive
EN-SFPP-DAC-5M-xx	10G	5 Meters	24/28	Passive
EN-SFPP-DAC-7M-xx	10G	7 Meters	24	Passive
EN-SFPP-DAC-3MA-xx	10G	3 Meters	30	Active
EN-SFPP-DAC-5MA-xx	10G	5 Meters	28/30	Active
EN-SFPP-DAC-7MA-xx	10G	7 Meters	28/30	Active
EN-SFPP-DAC-10MA-xx	10G	10 Meters	24/28	Active
EN-SFPP-DAC-12MA-xx	10G	12 Meters	24	Active

100G QSFP28 AOC

DESCRIPTION:

E.C.I. Networks QSFP+28 Active Optical Cables (AOC) are high-performance active optical cables with bi-directional signal transmission and aggregate 100Gbps bandwidth for both infiniband EDR and Ethernet 100G-SR4 applications. Compared to conventional copper cables, longer and lighter optical cables enable the ease of complicated data-center cablings. The AOCs utilize multimode fiber with 850nm VCSELs and PIN PDs. The certificated cables have superior signal integrity and bit error rate, which enables reliable operation performance.

FEATURE AND APPLICATION:

- Supports 100Gbps data rate links up to
- 70m/100m via OM3/OM4;
- VCSEL array transmission and PIN array receiver;
- Lower power consumption of max 3.5W;
- Bit Error Ratio (BER): 10~12;
- Ethernet for 100Gbase-SR4;
- Infiniband EDR, FDR, QDR;
- HPC Interconnects;
- Proprietary Interconnections;

STANDARDS COMPLIANCE:

- 100Gbase-SR4 (IEEE802.3bm);
- SFF-8665
- RoHS

Part Number	Data Rate	Length	Power	BER
EN-Q28AOC-5M-xx	100G	5 Meters	<3.5W	$<10^{-12}$
EN-Q28AOC-10M-xx	100G	10 Meters	<3.5W	$<10^{-12}$
EN-Q28AOC-20M-xx	100G	20 Meters	<3.5W	$<10^{-12}$
EN-Q28AOC-50M-xx	100G	50 Meters	<3.5W	$<10^{-12}$

100G QSFP28 AOC BREAKOUT (100GB/S QSFP28 TO 4XSFP28)

DESCRIPTION:

E.C.I. Networks QSFP+28 AOC Breakout series is a VCSEL-based, cost-effective 100Gbps to 4x25Gbps active optical splitter cable, designed for use in 100GbE Ethernet system. This series is compliant with SFF-8402 for the SFP28 ends and with SFF-8665 for the QSFP+28 end. It provides comnnectivity between system units with a QSFP+28 port on one side and up to four different SFP28 ports on the other side, such as a switch and four servers. The cable connects data signals from each of the 4 MMF pairs on the QSFP+28 end to the single pair of each on the SFP28 ends.

FEATURE AND APPLICATION:

- Programmable Tx Input EQ and Rx Output amplitude and Pre-Emphasis;
- Single 3.3V Power with Low Power of 2.5W (QSFP+28) and 0.8W (SFP28);
- Support up to 70m/100m via OM3/OM4;
- Bit Error Ratio (BER): 10-12
- Ethernet for 100Gbase-SR4;
- Infiniband EDR, FDR, QDR;
- HPC Interconnects;
- Proprietary Interconnections;

STANDARDS COMPLIANCE:

- SFF-8665/SFF-8636
- RoHS Compliant

Part Number	Data Rate	Length	Power QSFP+28	BER
EN-Q28AOCBO-5M-xx	100G/4x28G	5 Meters	<2.5W	$<10^{-12}$
EN-Q28AOCBO-10M-xx	100G/4x28G	10 Meters	<2.5W	$<10^{-12}$
EN-Q28AOCBO-15M-xx	100G/4x28G	15 Meters	<2.5W	$<10^{-12}$
EN-Q28AOCBO-20M-xx	100G/4x28G	20 Meters	<2.5W	$<10^{-12}$
EN-Q28AOCBO-30M-xx	100G/4x28G	30 Meters	<2.5W	$<10^{-12}$

40G QSFP+ AOC

DESCRIPTION:

E.C.I. Networks Inerconnect solution 40Gb/s lower power Active Optical Cable assemblies offer a cost-effective, extended reach option for high-speed data center interconnects. Using 850nm VCSEL technology, E.C.I. Networks QSFP+ cable is an assembly of 4 full-duplex lanes, where each lane is capable of transmitting data at rates up to 10Gb/s per direction, providing an aggregated rate of 40Gb/s. The cable is available in a number of standard lengths up to 100m

FEATURE AND APPLICATION:

- Infiniband 4xSDR, DDR and QDR;
- 10G/40G Ethernet;
- 40G SAN, Fiber Channel;
- Rack-to-Rack, Shelf-to-Shelf Interconnect Top of Rack (TOR) Switch;
- Networking, Storage;
- Hubs, Swithes, Routers, Servers, Supercomputer;

STANDARDS COMPLIANCE:

- Electrical: IBTA V2 Revision 1.2.1 and 1.3;
- IEEE 802.3ba;
- SFF-8436;
- RoHS;

Part Number	Data Rate	Length	Power	BER
EN-QAOC-5M-xx	40G	5 Meters	<1.05W	$<10^{-15}$
EN-QAOC-10M-xx	40G	10 Meters	<1.05W	$<10^{-15}$
EN-QAOC-15M-xx	40G	15 Meters	<1.05W	$<10^{-15}$
EN-QAOC-30M-xx	40G	30 Meters	<1.05W	$<10^{-15}$
EN-QAOC-50M-xx	40G	50 Meters	<1.05W	$<10^{-15}$

40G QSFP+ AOC BREAKOUT (40GB/S QSFP+ TO 4XSFP+)

DESCRIPTION:

E.C.I. Networks QSFP+ to four SFP+ 40Gbps fanout Active Optical Cable is an adaptor cable which provides connectivity between device using QSFP+ port on one end and SFP+ ports on the other end. The integrated cable transmits 4x10Gbps data on the SFP+ side and 1x40Gbps data on the QSFP+ side via duplex over a loose tube fiber with distance up to 100m. The fanout AOC is SFF-8431 (SFP+ side) and SFF-8436 (QSFP+ side) compliance.

FEATURE AND APPLICATION:

- Infiniband 4xSDR, DDR and QDR;
- 10G/40G Ethernet;
- 40G SAN, Fiber Channel;
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Top of Rack (TOR) Switch;
- Networking, Storage;
- Hubs, Swithes, Routers, Servers, Supercomputer;

STANDARDS COMPLIANCE:

QSFP+ End

- Electrical: IBTA V2 Revision 1.2.1 and 1.3;
- IEEE 802.3ba;
- SFF-8436;
- RoHS;

SFP+ End

- SFF-8431;
- SFF-8432;
- SFF-8472;
- RoHS

Part Number	Data Rate	Length	Power QSFP+	Power SFP+	BER
EN-QAOCBO-5M-xx	40G/4x10G	5 Meters		<0.35W	$<10^{-15}$
EN-QAOCBO-10M-xx	40G/4x10G	10 Meters	<1.05W	<0.35W	$<10^{-15}$
EN-QAOCBO-15M-xx	40G/4x10G	15 Meters	<1.05W	<0.35W	$<10^{-15}$

FACT ABOUT 3RD PARTY TRANSCEIVERS

ECI Networks regularly receives questions and concerns from customers that using 3rd party components including compatible transceivers within a switch or router will void their warranty.
Here is the fact: 3rd party compatible transceivers will not void the OEM Warranty! It is common practice for clients to purchase transceivers for network devices from the network equipment manufacturer, if not already included in your package. What most haven't calculated is how much extra they're paying. However, the switch vendor doesn't actually manufacture these transceivers. They buy them, test them, and label them with their SKU number before reselling as "approved" transceivers. Most important, OEMs can mislead customers about possible warranty issues when using third party components to protect their sales channel and maintain extremely high margins through 'tie-in' sales.

OEM Statements on using 3rd party compatible transceivers

In the event of failure of a 3rd party compatible transceiver, the OEM in question cannot deny you the warranty support on the router or switch. OEMs rarely divulge this, although most of them state their support guidelines on their websites to support this.

CLARIFICATION ABOUT TRANSCEIVERS

Clarification about Transceivers

- A defective transceiver is a link down or non-functioning port, but not a failed network.
- In case of port fault or defect, a transceiver is hot swappable and is easily replaced.
- An OEM branded transceiver is just as likely/susceptible to fail. Whether it is a branded or an
- ECI Transceiver, the same troubleshooting approach is used: replace the defective transceiver.
- Most Service providers and enterprises will have stock of spare parts at the ready in case it is necessary to replace defective one.

WHY ECI NETWORKS AS ALTERNATIVE SOURCE TO COMPATIBLE TRANSCEIVERS?

- Guaranteed OPEX reduction by significant cost savings compared to the big brand vendors
- ECI's Lifetime 50 year unconditional warranty offers massive cost savings on redundant and unnecessary vendor support contracts for transceivers.
- ECI Networks partners with similar and sometimes the same manufacturers as the OEM to build and program the optical transceivers.
- ECI Networks offers identical MSA standards compliant and OEM quality transceivers to any switch, router, test equipment, or network element manufacturer.
- Optical transceivers from ECI Networks carry the same high level of quality in discrete hardware, firmware, packet integrity and laser strength as the manufacturer's "approved" OEM.
- ECI Transceivers rarely fail. All of our products come with a lifetime no nonsense warranty and our failure rate is less than half of one percent.
- ECI Transceivers are strictly designed to conform to RoHS, CE, FC and UL to ensure high quality & reliability
- Full portfolio of Active transceivers, including SFP, SFP+, XFP, Tunable, QSFP+, CFP, etc.
- Multi-technologies supported: Ethernet, SONET, DWDM, CWDM, Fibre Channel and CPRI/OBSAI
- Broader Brand compatibility i.e.: Cisco, Juniper, ALU, CIENA, AVAYA, FINISAR, etc.

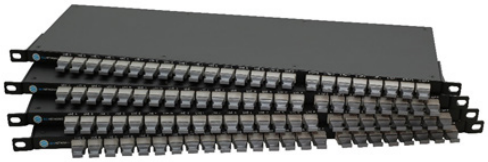
TAPSTACK SERIES HIGH DENSITY NETWORK TAPS

DESCRIPTION:

TAPstack is a slim rack-mounted device that supports up to 24 ports in a single rack unit. Models are available to support both duplex and parallel optical links, for multimode (MMF) and singlemode fiber (SMF), and rates right up to 100 Gb/s.

FEATURE:

- 100% passive and fault-tolerant; No impact on traffic; No power source required.
- Creates an exact copy of live bi-directional network traffic, including packet errors.
- No configuration required; Integrates into your cabling infrastructure.
- Easily connect to all your Network and security Tools!
- Slim design for high-density connectivity
  up to 24 TAPs with duplex fibre links with LC connectors per 1U
  up to 24 TAPs with parallel fibre links with MTP connector per 1U
- Dual Output LC TAP available for duplex LC links



APPLICATION:

- First step for network visibility
- Next-generation performance monitoring
- Packet brokering and security forensics

Part Number	Description	Data Rate
EN-TPSTCK1L25G-M55	TAPstack device with One Link Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height	1G/10G/25G
EN-TPSTCK2L25G-M55	TAPstack device with Two Links Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height	1G/10G/25G
EN-TPSTCK4L25G-M55	TAPstack device with Four Links Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height	1G/10G/25G
EN-TPSTCK8L25G-M55	TAPstack device with Eight (8) Links Passive fiber TAPs supports Multimode 1G/10G/25G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height	1G/10G/25G
EN-TPSTCK1L25G-M73	TAPstack device with One Link Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height	1G/10G/25G/40G/50G/100G
EN-TPSTCK2L25G-M73	TAPstack device with Two Links Passive fiber TAP supports Multimode 1G/10G/25G SR, Split ratio of 70/30, Slim 1/3U of 19" Rack height	1G/10G/25G/40G/50G/100G
EN-TPSTCK4L100G-S73	TAPstack device with Four Links Passive fiber TAP supports singlemode 1G/10G/25G/40G/50G/100G LR, Split ratio of 70/30, Slim 1/3U of 19" Rack height	1G/10G/25G/40G/50G/100G
EN-TPSTCK8L100G-S73	TAPstack device with Eight (8) Links Passive fiber TAPs supports singlemode 1G/10G/25G/40G/50G/100G LR, Split ratio of 70/30, Slim 1/3U of 19" Rack height	1G/10G/25G/40G/50G/100G
TAPstack TAPs for MPO/MTP PARALLEL (8-FIBER/20-FIBER) (other splits ratios available 10/90, 20/80, 40/60)		
EN-TPSTCK1L100G-M55	TAPstack device with One Link Passive fiber TAP supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height, Net2XMTP/ Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)	40G/100G
EN-TPSTCK2L100G-M55	TAPstack device with TWO Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height Net2X-MTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)	40G/100G
EN-TPSTCK4L100G-M55	TAPstack device with FOUR Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height Net2X-MTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)	40G/100G
EN-TPSTCK8L100G-M55	TAPstack device with FOUR Links Passive fiber TAPs supports Multimode MTP to MTP 40G/50G/100G SR, Split ratio of 50/50, Slim 1/3U of 19" Rack height Net2X-MTP/Mon1XMTP per link, requires MTP Y Cable (PN# EN-YMTP8F-OM4-3M)	40G/100G

MOBSTACK SERIES

DESCRIPTION:

MOBstack Series - Cost-Effective Family of Passive Optical Networking to maximize dark fiber utilization
The MOBstack Series is a xWDM product line of fully passive Multiplexer/Demultiplexer and Optical Add Drop multiplexer/demultiplexer (OADM) to maximize dark fiber utilization.
Recently, we added WDM-PON module, this new offering, combined with our 1G/10G/25G CWDM/ CPRI/Bidi and XGS-PON transceivers, makes data center, and 5G Mobile front/Backhaul expansions easier than ever.

FEATURE AND APPLICATION:

- Passive transparent any rate, any service multiplexing
- Compliant with all optical networking products (ITU 100Ghz grid)
- DWDM passive optical mux/demux supported configuration: 4/8/16/44/48/88/96 channels
- CWDM passive optical mux/demux supported configuration: 4/8/16 channels
- Flexible Design, Multiple MUX per module
- Available for Single or Dual Fiber
- Possibility to add Expansion port, monitor port, LC connector
- Simple to install, requires no configuration or maintenance. different Housing options available 1RU, 5RU
- Plug and play design, scalable modular design, “pay as you grow” architecture.
- Commercial (0 to 50°C) and wide (-40 to 60°C) temperature ranges
- Comes with Five (5) Year Warranty

APPLICATION:

- 4G/5G Fronthaul WDM solutions up to 100G optical transmission in WDM/OTN system
- 1G/10G/25G/100G Ethernet, CPRI OB-SAI, WDM-PON and 32G/16G/8/4/2/1G Fiber Channel
- Single Fiber (BiDi to Bidi) CWDM solution
- DWDM OVER CWDM use cases

Part Number	Description
MobStack Series Rackmount chassis options	
EN-CWMD-RCK5U	MobStak 5U Rackmount Chassis with 16 slots available. 19 inch, up to 16x CWDM and DWDM Mux/Demux LGX modules
EN-CWMD-RCK1U	MobStak 1U Rackmount Chassis with 3 slots available. 19inch, up to 3 Mux/ Demux LGX modules
MobStack Series Rackmount chassis options	
EN-MS5G-40CLCU-FMod	MobStack Passive Single Fiber Bidirectional DWDM Mux/Demux Flat-Top TYPE Plug in Module Single Fiber Com port, 42 x 1F LC/UPC ports, 40 channels (21-60) with Tx&Rx MON, 100GHz, Connectors LC/UPC. Flat Top AAWG Type. Packed in 218*160*26.5mm LGX box
EN-MS5G-40CLCU-GMod	MobStack Passive Single Fiber Bidirectional DWDM Mux/Demux Gaussian Type Plug in Module Single Fiber Com port, 42 x 1F LC/UPC ports, 40 channels (21-60) with Tx&Rx MON, 100GHz, Connectors LC/UPC. Gaussain AAWG Type. Packed in 218*160*26.5mm LGX box
EN-MS5G-4x8CLCU-TMod	MobStack Passive 4x8CH Single Fiber Bidirectional DWDM Mux/Demux THIN FILM FILTER TYPE. Plugin Module Single Fiber Com port, 8CHx1F LC/UPC ports, 8 channels (21-28), 100GHz, Connectors LC/UPC per MUX/DEMUX. 4x8CH Mux Packed in 218*160*26.5mm LGX box
EN-MS5G-4x8CLCU-TMod2	MobStack Passive 4x8CH Single Fiber Bidirectional DWDM Mux/Demux THIN FILM FILTER TYPE. Plugin Module Single Fiber Com port, 8CHx1F LC/UPC ports, 8 channels (37-44), 100GHz, Connectors LC/UPC per MUX/DEMUX. 4x8CH Mux Packed in 218*160*26.5mm LGX box
EN-MS5G-4x8CLCU-TMod3	MobStack Passive 4x8CH Single Fiber Bidirectional DWDM Mux/Demux THIN FILM FILTER TYPE. Plugin Module Single Fiber Com port, 8CHx1F LC/UPC ports, 8 channels (45-52), 100GHz, Connectors LC/UPC per MUX/DEMUX.
EN-MS5G-4x8CLCU-TMod4	MobStack Passive 4x8CH Single Fiber Bidirectional DWDM Mux/Demux THIN FILM FILTER TYPE. Plugin Module Single Fiber Com port, 8CHx1F LC/UPC ports, 8 channels (53-60), 100GHz, Connectors LC/UPC per MUX/DEMUX.
MobStack 5G SINGLE FIBER DWDM MUX/DEMUX PIGTAIL Module (Cell Site/Pole side)	
EN-MS5G-8CSCA-MT2128	MobStack Passive Single Fiber, 900um loose tube 0.5m DWDM Mux/Demux Pigtail Module; Single Fiber, Com SC/APC port, 8 channels (21-28), 100GHz, Connectors 8x SC/APC Connectors. THIN FILM FILTER MEDIUM Packed in 80*60*12mm ABS box
EN-MS5G-8CSCA-MT2936	MobStack Passive Single Fiber, 900um loose tube 0.5m DWDM Mux/Demux Pigtail Module; Single Fiber, Com SC/APC port, 8 channels (29-36), 100GHz, Connectors 8x SC/APC Connectors. THIN FILM FILTER MEDIUM Packed in 80*60*12mm ABS box
EN-MS5G-8CSCA-MT3744	MobStack Passive Single Fiber, 900um loose tube 0.5m DWDM Mux/Demux Pigtail Module; Single Fiber, Com SC/APC port, 8 channels (37-44), 100GHz, Connectors 8x SC/APC Connectors. THIN FILM FILTER MEDIUM Packed in 80*60*12mm ABS box
EN-MS5G-8CSCA-MT4552	MobStack Passive Single Fiber, 900um loose tube 0.5m DWDM Mux/Demux Pigtail Module; Single Fiber, Com SC/APC port, 8 channels (45-52), 100GHz, Connectors 8x SC/APC Connectors. THIN FILM FILTER MEDIUM Packed in 80*60*12mm ABS box
EN-MS5G-8CSCA-MT5360	MobStack Passive Single Fiber, 900um loose tube 0.5m DWDM Mux/Demux Pigtail Module; Single Fiber, Com SC/APC port, 8 channels (53-60), 100GHz, Connectors 8x SC/APC Connectors. THIN FILM FILTER MEDIUM Packed in 80*60*12mm ABS box
MobStack MBX CWDM Single Fiber to Single Fiber LGX Modules	
EN-CW1MD-2CPB	MobStak Passive Single Fiber Bidirectional CWDM Mux/Demux, 2 CH w/t Pass-band, BX port, Plug-in LGX Module, LC/UPC connector
EN-CW8MD-2CPB	MobStak 8x2CH passive Single Fiber Bidirectional CWDM Mux/Demux, 2CH w/t Passband BX port, Plug-in LGX Module, LC/UPC connector

* For complete portfolio, please contact us at sales@ecin.ca

E.C.I. Networks delivers the network optics solutions you need for tomorrow's Data Center, Access and Wireless Networks, designing innovative solutions to your engineering challenges in network connectivity.

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