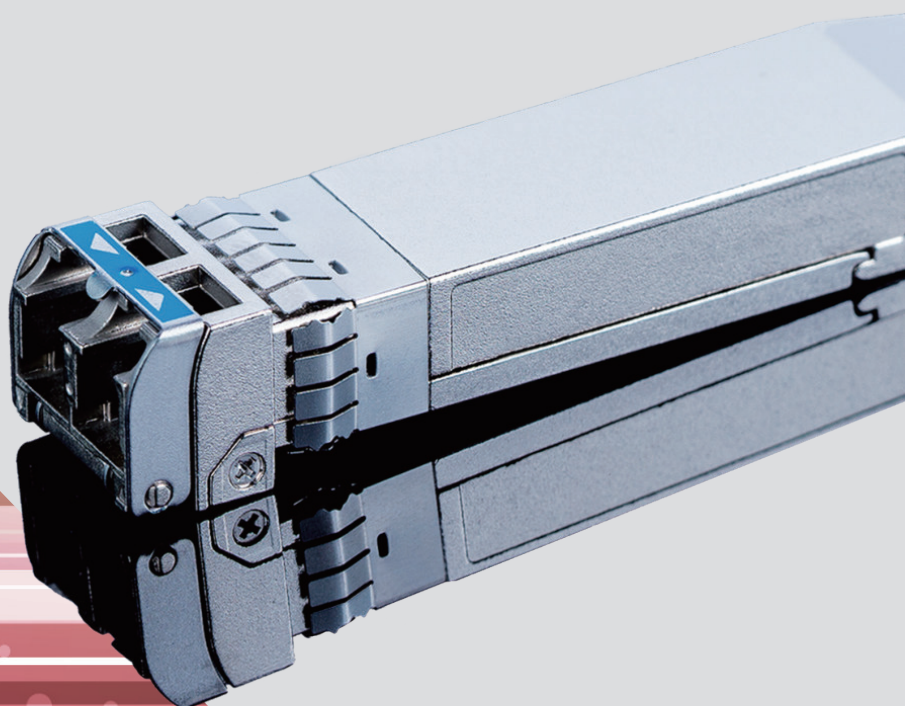




# Professional Fiber Optical Products Supplier

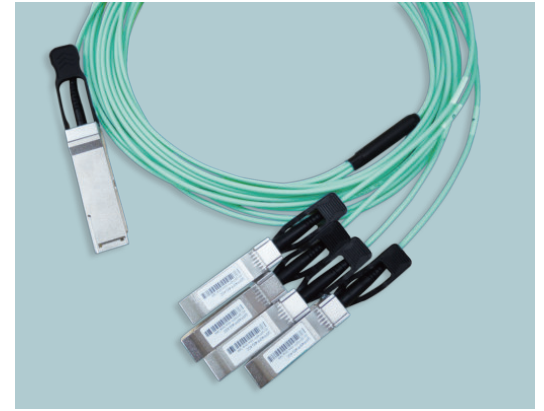
from Taiwan

台湾のプロフェッショナル光ファイバー製品サプライヤー



- > Fiber Optical Transceiver
- > DAC, AOC, Cable, Patch-cord
- > OTN DWDM Transmission Platform

# About Us



Ficer Technology Co., Ltd. established in 2005, is a professional Fiber Optical product and solution supplier in Taipei, Taiwan.

Our comprehensive Fiber Optical product lines include :

1. **Fiber Optical Transceiver** : Various form factor Fiber Optical Transceiver modules with 1bps ~ 400Gbps data rate.
2. **Cable** : (1) DAC ( Direct Attach Cable ) (2) AOC ( Active Optical Cable )  
(3) Various Fiber Optical Cable / Patch-cord for Indoor and Outdoor application like General Patch-cord, MPO Patch-cord, Distribution Cable, Armored Cable, Waterproof Cable, Military Tactical Cable.
3. **Equipment** : OTN DWDM Transmission Platform ( EDFA, RAMAN, OTU Transponder, Muxponder, OLP, OPM, SOA, FEC, DCM... ).

弊社は、2005年に台湾で設立された、光ファイバー トランシーバー、パッシブ コンポーネントと通信設備のプロフェッショナルサプライヤーです。

17年以上の経験を持ち、「全世界を光ファイバーで繋ぐことで人間の文明を発展させ続けること」を目指しながら全世界のお客様と共に歩んでまいりました。いつもお客様の立場から考え、光製品システムに貢献できるカスタマイズした製品により課題の解決をご提案したいと思っております。

弊社の代表的な製品は：

- (1) 光ファイバー トランシーバー
- (2) 光ファイバー ケーブル/パッチコード
- (3) DWDM 伝送プラットフォーム

# Fiber Optical Network Applications



**Fiber Optical Network**



**Surveillance**



**FTTx**



**5G Mobile Network**

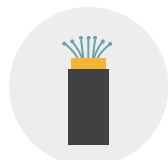


**Data Center**



**Industrial**

## Link Fiber to Future



**Product**



CE



FCC



TUV



UL



**Green**



REACH



RoSH



**Company**



ISO 14001



ISO 9001



# Fiber Optical Transceiver



## 400G/200G QSFP-DD SR8

### Features

- Compliant with IEEE 802.3bs 400GBASE-SR8
- Compliant with QSFP-DD MSA
- Parallel 8 optical lanes
- Up to 53.125Gb/s (PAM4) per lane
- 8CH 850nm VCSEL transmitter + PIN receiver
- MPO-16 connector
- Link distance 70m over MM OM3 fiber / 100m over MM OM4 fiber with FEC



## 400G QSFP-DD SR4-BiDi

### Features

- Compliant with IEEE802.3cm 400GBASE-SR4.2
- Compliant with QSFP-DD MSA
- Parallel 4 optical lanes
- Up to 106.25Gb/s (PAM4) per lane
- 4CH 850/910nm VCSEL transmitter + PIN receiver
- MPO-12 connector
- Link distance 100m over MM OM4 fiber / 150m over MM OM5 fiber with FEC



## 400G QSFP-DD DR4/DR4+

### Features

- Compliant with IEEE 802.3bs 400GBASE-DR4
- Compliant with QSFP-DD MSA
- Parallel 4 optical lanes
- Up to 106.25Gb/s (PAM4) per lane
- 4CH 1310nm EML transmitter + PIN receiver
- MPO-12 connector
- Link distance 500m(DR4) / 2km(DR4+) over SM fiber with FEC



## 400G QSFP-DD FR4

### Features

- Compliant with IEEE 802.3cu 400GBASE-FR4
- Compliant with QSFP-DD MSA
- 4CH CWDM MUX / DEMUX design
- Up to 106.25Gb/s (PAM4) per lane
- CWDM EML transmitter + PIN receiver
- Duplex LC connector
- Link distance 2km over SM fiber with FEC



## 400G QSFP-DD LR4

### Features

- Compliant with IEEE 802.3cu 400GBASE-LR4
- Compliant with QSFP-DD MSA
- 4CH CWDM MUX / DEMUX design
- Up to 106.25Gb/s (PAM4) per lane
- CWDM EML transmitter + PIN receiver
- Duplex LC connector
- Link distance 10km over SM fiber with FEC



## 400G QSFP-DD ER4

### Features

- Compatible with IEEE 802.3cu 400GBASE-LR4
- Compliant with QSFP-DD MSA
- 4CH CWDM MUX / DEMUX design
- Up to 106.25Gb/s (PAM4) per lane
- CWDM EML transmitter + APD receiver
- Duplex LC connector
- Link distance 30km over SM fiber with FEC



## 400G QSFP-DD ZR/ZR+ DCO

### Features

- Compliant with QSFP-DD MSA
- Compliant to OIF Implementation Agreement for Coherent CMIS
- Compliant with OIF-400ZR MSA
- Compliant with OpenZR+ MSA
- Full C-band DWDM tunable with Flex-grid support
- Support DP-16QAM with CFEC(ZR)/oFEC(ZR+)



## 100G CFP LR4 / ER4

### Features

- Compliant with IEEE802.3ba 100GBASE-LR4 / ER4 and OTN OTU4
- Compliant with CFP MSA and CAUI 100GE
- 4CH LWDM MUX / DEMUX design
- Aggregate Data Rate 103.1 / 111.8Gbps
- Built in quad TX CDR and RX CDR
- O-Band LWDM DFB / EML transmitter
- Duplex LC connector
- Link distance 10km / 40km over SM fiber



## 100G CFP-DCO

### Features

- Compliant with CFP MSA, CAUI 100GE and OTL4.10 for OTU4 host interface
- Supports Coherent optical transmission DP-DQPSK (100G)
- 98CH DWDM 50GHz Tunable in the range of THz191.25 (H12) to THz196.10 (C61)
- Data Rate 103.1 / 111.8Gbps
- CFP class 4 ( MAX Power Consumption 32W )
- NDSF reach distance 1200km without in-line Dispersion Compensation (with OA)

# Fiber Optical Transceiver



100G CFP2 LR4 / ER4

## Features

- Compliant with IEEE802.3ba 100GBASE-LR4 / ER4 and OTN OTU4
- Compliant with CFP2 MSA and CAUI 100GE
- 4CH LWDM MUX / DEMUX design
- Aggregate Data Rate 103.1 / 111.8Gbps
- Built in quad TX CDR and RX CDR
- O-Band LWDM DFB / EML transmitter
- Duplex LC connector
- Link distance 10km / 40km over SM fiber



400G / 200G / 100G CFP2-DCO

## Features

- Compliant with CFP2 MSA, CAUI 100GE and OTL4.10 for OTU4 host interface
- Supports Coherent optical transmission DP-QPSK (100G), DP-8QAM (200G) and DP-16QAM (200G)
- 98CH DWDM 50GHz Tunable in the range of THz191.25 (H12) to THz196.10 (C61)
- Data Rate 103.1G (100GE) / 111.8G (OTU4) / 200G (OTUC2)
- MAX Power Consumption 20.5W
- NDSF 500~2000km



100G QSFP28 SR4 / eSR4

## Features

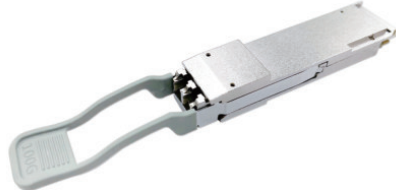
- Compliant with IEEE802.3ba 100GBASE-SR4 and OTN OTU4
- 4 independent parallel fiber full-duplex channels
- Aggregate Data Rate 103.1 / 111.8Gbps
- Built-in quad TX CDR and RX CDR
- 4CH 850nm VCSEL transmitter + PIN receiver
- MPO-12 receptacle connector
- Link distance 70m(SR4) / 150m(eSR4) over MM OM3 fiber
- Link distance 100m(SR4) / 300m(eSR4) over MM OM4 fiber



100G QSFP28 SR1.2

## Features

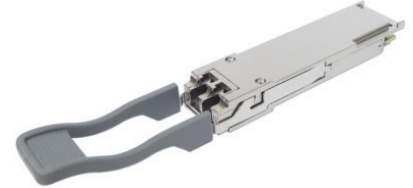
- Compliant with 100GBASE-SR1.2
- PAM4 2CH 50Gbps bidirectional optics design
- Operate at 25.78125Gbps per electrical channel
- 850 / 908nm VCSEL transmitter + PIN receiver
- Dual Bidi LC connector
- Interoperable with 400G-SR4-BiDi(SR4.2)
- Link distance 100m over MM OM4 fiber / 150m over MM OM5 fiber with FEC



40/100G QSFP28 SRBD

## Features

- Compliant with 40G & 100GBASE-SR2-BiDi
- PAM4 2CH 50Gbps bidirectional optics design
- Operate at 25.78125Gbps per electrical channel
- 850 / 908nm VCSEL transmitter + PIN receiver
- Dual Bidi LC connector
- Link distance 70m over MM OM3 fiber / 100m over MM OM4 fiber / 150m over MM OM5 fiber



100G QSFP28 SWDM4

## Features

- Compliant with IEEE802.3bm 100GBASE-SWDM4
- 4CH SWDM MUX / DEMUX design
- Aggregate Data Rate 103.1Gbps
- Built-in quad TX CDR and RX CDR
- SWDM VCSEL transmitter + PIN receiver
- Duplex LC connector
- Link distance 100m over MM OM4 fiber / 150m over MM OM5 fiber



100G QSFP28 LX4

## Features

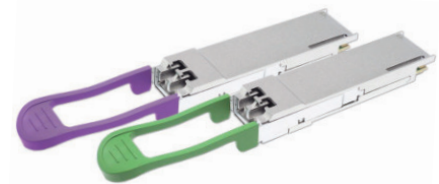
- Compatible with IEEE802.3ba 100GBASE-CWDM4
- 4CH CWDM MUX / DEMUX design
- Aggregate Data Rate 103.1Gbps
- Built in quad TX CDR and RX CDR
- CWDM DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 100m over MM OM3/OM4 fiber
- Link distance 2km over SM fiber



100G QSFP28 PSM4

## Features

- Compliant with IEEE802.3bm 100GBASE-PSM4
- 4 independent parallel fiber full-duplex channels
- Aggregate Data Rate 103.1Gbps
- Built-in quad TX CDR and RX CDR
- 4CH 1310nm DFB transmitter + PIN receiver
- MPO-12 receptacle connector
- Link distance 2km over SM fiber



100G QSFP28 CWDM4 / eCWDM4 (4WDM-10)

## Features

- Compliant with IEEE802.3ba 100GBASE-CWDM4
- 4CH CWDM MUX / DEMUX design
- Aggregate Data Rate 103.1Gbps
- Built in quad TX CDR and RX CDR
- CWDM DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 2km / 10km over SM fiber

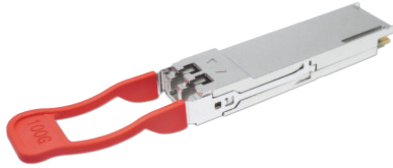
# Fiber Optical Transceiver



100G QSFP28 LR4 / LR4-20

## Features

- Compliant with IEEE802.3ba 100GBASE-LR4 and OTN OTU4
- 4CH LWDM MUX / DEMUX design
- Aggregate Data Rate 103.1 / 111.8Gbps
- Built-in quad TX CDR and RX CDR
- O-Band LWDM DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 10km / 20km over SM fiber



100G QSFP28 ER4

## Features

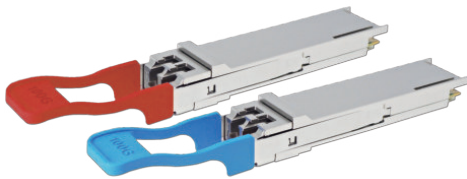
- Compliant with IEEE802.3ba 100GBASE-ER4 and OTN OTU4
- 4CH LWDM MUX / DEMUX design
- Aggregate Data Rate 103.1 / 111.8Gbps
- Built-in quad TX CDR and RX CDR
- O-Band LWDM EML transmitter + APD receiver
- Duplex LC connector
- Link distance 40km over SM fiber



100G QSFP28 ZR4

## Features

- Compatible with IEEE802.3ba 100GBASE-ER4 and OTN OTU4
- 4CH LWDM MUX / DEMUX design
- Aggregate Data Rate 103.1 / 111.8Gbps
- Built-in quad TX CDR and RX CDR
- O-Band LWDM EML transmitter + SOA receiver
- Duplex LC connector
- Link distance 60km(without FEC) / 80km(with FEC) over SM fiber



100G QSFP28 DR1/FR1/LR1/ER1

## Features

- Compliant with IEEE802.3cd 100GBASE-DR1 and 802.3cu 100GBASE-FR1 / LR1 / ER1
- Optical Data Rate 53.125GBd with PAM4
- Electrical Data Rate 4x25Gbps with NRZ
- Built-in quad TX CDR and RX CDR
- Single Lambda 1311nm EML transmitter + PIN receiver
- Duplex LC connector
- Link distance 500m / 2km / 10km / 30km over SM fiber with FEC



## Features

- Compatible with IEEE802.3cu 100GBASE-LR1 / ER1
- Optical Data Rate 53.125GBd with PAM4
- Electrical Data Rate 4x25Gbps with NRZ
- Built-in quad TX CDR and RX CDR
- Single Lambda DFB transmitter + PIN / APD receiver
- Simplex (Bidi) LC connector
- Link distance 10/20/30/40km over SM fiber with FEC



100G QSFP28 DWDM

## Features

- Compatible with IEEE802.3cu 100GBASE-ER1
- Optical Data Rate 53.125GBd with PAM4
- Electrical Data Rate 4x25Gbps with NRZ
- Built-in quad TX CDR and RX CDR
- 100GHz ITU Grid, C-Band DWDM transmitter + PIN receiver
- Duplex LC connector
- Link distance up to 100km over SM fiber (with OA and DCM)



100G QSFP28 Adapter Converter

## Features

- Compliant with QSFP28 and QSFP+ MSA
- Compliant with SFP28 and SFP+ MSA
- Converts a QSFP28 / QSFP+ port into an SFP28/SFP+ port
- One independent duplex channel operating from 2.5Gbps to 25Gbps
- Low insertion loss
- Low crosstalk



40G QSFP+ SR4 / eSR4

## Features

- Compliant with IEEE802.3ba 40GBASE-SR4
- 4 independent parallel fiber full-duplex lanes
- Up to 11.2Gbps data rate per lane
- 850nm VCSEL transmitter + PIN receiver
- MPO-12 receptacle connector
- Link distance 100m(SR4) / 300m(eSR4) over MM OM3 fiber
- Link distance 150m(SR4) / 400m(eSR4) over MM OM4 fiber

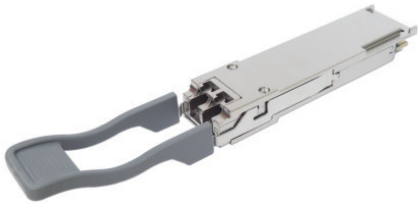


40G QSFP+ SRBD

## Features

- Compliant with 40GBASE-SR2-BiDi
- 2CH 21Gbps bidirectional optics design
- Operate at 10.3125Gbps per electrical channel
- 850 / 908nm VCSEL transmitter + PIN receiver
- Dual Bidi LC connector
- Link distance 100m over MM OM3 fiber / 150m over MM OM4 fiber

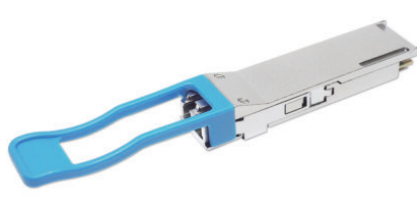
# Fiber Optical Transceiver



40G QSFP+ SWDM4

## Features

- Compliant with IEEE802.3ba 40GBASE-SWDM4
- 4CH SWDM MUX / DEMUX design
- Up to 10.3Gbps data rate per lane
- SWDM VCSEL transmitter + PIN receiver
- Duplex LC connector
- Link distance 300m over MM OM3 fiber / 400m over MM OM4 fiber



40G QSFP+ LX4 / LM4

## Features

- Compliant with 40GBASE-LX4 / LM4
- 4CH CWDM MUX / DEMUX design
- Up to 11.2Gbps data rate per lane
- 1270~1330nm CWDM DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 2km over SM fiber / 150m over MM OM3 fiber



40G QSFP+ PSM4 IR / LR

## Features

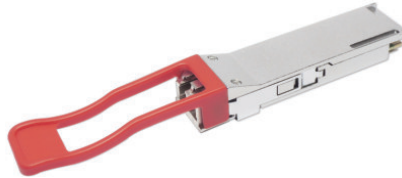
- Compatible with IEEE802.3ba 40GBASE-PSM4
- 4 independent parallel fiber full-duplex channels
- Up to 11.2Gbps data rate per lane
- 1310nm DFB transmitter + PIN receiver
- MPO-12 receptacle connector
- Link distance 2km(IR) / 10km(LR) over SM fiber



40G QSFP+ IR4 / LR4

## Features

- Compliant with IEEE802.3ba 40GBASE-LR4
- 4CH CWDM MUX / DEMUX design
- Up to 11.2Gbps data rate per lane
- 1270~1330nm CWDM DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 2km(IR4) / 10km(LR4) over SM fiber



40G QSFP+ ER4

## Features

- Compliant with IEEE802.3bm 40GBASE-ER4
- 4CH CWDM MUX / DEMUX design
- Up to 11.2Gbps data rate per lane
- 1270~1330nm CWDM DFB transmitter + APD receiver
- Duplex LC connector
- Link distance 40km over SM fiber



40G QSFP+ ZR4

## Features

- Compatible with IEEE802.3bm 40GBASE-ER4
- 4CH LWDM MUX / DEMUX design
- Up to 11.2Gbps data rate per lane
- O-Band LWDM DFB transmitter + APD receiver
- Duplex LC connector
- Link distance 80km over SM fiber



32GFC SFP28 SW / LW

## Features

- Compliant with Fiber Channel 3200-M5F-SN-I / 3200-SM-LC-L
- Built-in TX CDR and RX CDR
- Support 4x / 8x / 10x / 16x / 32x Fiber Channel
- 850nm VCSEL / 1310nm DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 70m over MM OM3 / 100m over MM OM4 fiber (32GFC-SW)
- Link distance 10km over SM fiber (32GFC-LW)



25G SFP28 SR / eSR

## Features

- Compliant with CPRI Option #10 24.33Gbps and IEEE802.3by 25GBASE-SR Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- 850nm VCSEL transmitter + PIN receiver
- Duplex LC connector
- Link distance 70m(SR) / 200m(eSR) over MM OM3 fiber
- Link distance 100m(SR) / 300m(eSR) over MM OM4 fiber



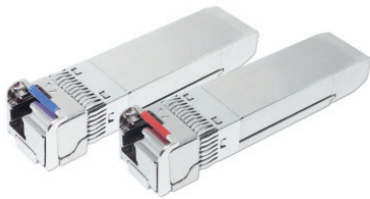
25G SFP28 LRL / LR / LR20

## Features

- Compliant with CPRI Option #10 24.33Gbps and IEEE802.3cc 25GBASE-LR Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- 1310nm DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 300m(LRL) / 10km(LR) / 20km(LR20) over SM fiber



# Fiber Optical Transceiver



25G SFP28 BX10 / 20 / 40km

## Features

- Compatible with CPRI Option #10 24.33Gbps and IEEE802.3cc 25GBASE-LR Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- 1270 / 1330nm DFB transmitter + PIN / APD receiver
- Simplex(Bidi) LC connector
- Link distance 10km~40km over SM fiber



25G SFP28 CWDM 10km

## Features

- Compatible with CPRI Option #10 24.33Gbps and IEEE802.3cc 25GBASE-LR Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- 1270~1370nm CWDM DFB Transmitter + PIN receiver
- Duplex LC connector
- Link distance 10km over SM fiber



25G SFP28 LWDM 40km

## Features

- Compliant with CPRI Option #10 24.33Gbps and IEEE802.3cc 25GBASE-ER Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- O-Band LWDM EML transmitter + APD receiver
- Duplex LC connector
- Link distance 30km(without FEC) / 40km(with FEC) over SM fiber



25G SFP28 DWDM 10km

## Features

- Compatible with CPRI Option #10 24.33Gbps and IEEE802.3cc 25GBASE-LR Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- 50GHz ITU Grid, C-Band DWDM MZM transmitter + PIN receiver
- Duplex LC connector
- Link distance 10km over SM fiber



25G SFP28 DWDM Tunable

## Features

- Compatible with CPRI Option #10 24.33Gbps and IEEE802.3cc 25GBASE-LR Ethernet 25.78Gbps
- Built-in TX CDR and RX CDR
- 50GHz ITU Grid, C-Band DWDM MZM transmitter + PIN receiver
- Duplex LC connector
- Link distance 10km over SM fiber



16GFC SFP+ SW / LW

## Features

- Compliant with Fiber Channel 1600-M5F-SN-I / 1600-SM-LC-L
- Support 4x / 8x / 10x / 16x Fiber Channel
- 850nm VCSEL / 1310nm DFB transmitter + PIN receiver
- Duplex LC connector
- Link distance 100m over MM OM3 fiber (16GFC-SW)
- Link distance 10km over SM fiber (16GFC-LW)



16GFC SFP+ CWDM / DWDM

## Features

- Compatible with Fiber Channel 1600-SM-LZ-V
- Support 4x / 8x / 10x / 16x Fiber Channel
- 1470~1610nm CWDM EML / 100GHz ITU Grid, C-Band DWDM MZM transmitter + PIN receiver
- Duplex LC connector
- Link distance 40km over SM fiber



10G XFP SR / LR / ER / ZR / ZR100

## Features

- Compliant with IEEE802.3ae 10GBASE-SR/LR/ER/ZR, SONET OC192, SDH STM64 and CPRI Option #8
- Support 9.953Gb/s to 11.32Gb/s Multi-Rate
- 850nm VCSEL / 1310nm DFB / 1550nm EML transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 300m(SR) over MM OM3 fiber, 10km(LR) / 40km(ER) / 80km(ZR) / 100km(ZR100) over SM fiber



10G XFP BX 20/40/60/80km

## Features

- Compliant with 10GBASE-BX, SONET OC192, SDH STM64 and CPRI Option #8
- Support 9.953Gb/s to 11.32Gb/s Multi-Rate
- 1270 / 1330nm CWDM DFB transmitter + PIN(10km~40km) / APD(60km) receiver
- 1490 / 1550nm CWDM EML transmitter + APD receiver for 80km
- Simplex(Bidi) LC connector
- Link distance 20~80km over SM fiber



# Fiber Optical Transceiver



10G XFP CWDM

## Features

- Compliant with IEEE802.3ae 10GBASE-ER/ZR, SONET OC192, SDH STM64 and CPRI Option #8
- Support 9.953Gb/s to 11.32Gb/s Multi-Rate
- CWDM transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 40~100km over SM fiber



10G XFP DWDM

## Features

- Compliant with IEEE802.3ae 10GBASE-ER/ZR, SONET OC192, SDH STM64 and CPRI Option #8
- Support 9.953Gb/s to 11.32Gb/s Multi-Rate
- 50GHz / 100GHz ITU Grid, C-Band DWDM EML transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 40~100km over SM fiber



10G SFP+ SR / LR / ER / ZR / ZR100

## Features

- Compliant with IEEE802.3ae 10GBASE-SR/ LR/ER/ZR, SONET OC192, SDH STM64 and CPRI Option #7, #8
- Support 1.0625Gbps to 11.32Gbps Multi-Rate
- 850nm VCSEL / 1310nm DFB / 1550nm EML transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 300m(SR) over MM OM3 fiber, 10km(LR) / 40km(ER) / 80km(ZR)/ 100km(ZR100) over SM fiber



10G SFP+ BX 20/40/60/80/100km

## Features

- Compliant with 10GBASE-BX, SONET OC192, SDH STM64 and CPRI Option #7, #8
- Support 1.0625Gbps to 11.32Gbps Multi-Rate
- 1270 / 1330nm CWDM DFB transmitter + PIN(10km~40km) / APD(60km) receiver
- 1490 / 1550nm CWDM EML transmitter + APD receiver for 80/100km
- Simplex(Bidi) LC connector
- Link distance 20~100km over SM fiber



10G SFP+ CWDM

## Features

- Compliant with IEEE802.3ae 10GBASE-LR/ ER/ZR, SONET OC192, SDH STM64 and CPRI Option #7, #8
- Support 1.0625Gbps to 11.32Gbps Multi-Rate
- 1270~1610nm CWDM DFB / 1470~1610nm CWDM EML transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 5~100km over SM fiber



10G SFP+ DWDM

## Features

- Compliant with IEEE802.3ae 10GBASE-ER/ ZR, SONET OC192, SDH STM64 and CPRI Option #7, #8
- Support 1.0625Gbps to 11.32Gbps Multi-Rate
- 50GHz / 100GHz ITU Grid, C-Band DWDM EML transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 40~100km over SM fiber



10G SFP+ DWDM Tunable 80km

## Features

- Compliant with IEEE802.3ae 10GBASE-ZR, SONET OC192, SDH STM64 and CPRI Option #7, #8
- Support 9.953Gb/s to 11.32Gb/s Multi-Rate
- 50GHz ITU Grid, C-Band DWDM ILMZ transmitter + APD receiver
- Duplex LC connector
- Link distance 80km over SM fiber



125M ~ 2.5G Dual LC SFP  
220m~200km

## Features

- Data Rate 125M / 155M / 622M / 1.0625G / 1.25G / 2.125G / 2.5G
- 850nm VCSEL / 1310nm FP / 1310nm DFB / 1550nm DFB transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 500m~5km over MM fiber / 5~200km over SM fiber



125M ~ 2.5G BIDI LC SFP  
500m~160km

## Features

- Data Rate 125M / 155M / 622M / 1.0625G / 1.25G / 2.125G / 2.5G
- 1310nm FP / 1310nm DFB / 1490nm DFB / 1550nm DFB transmitter + PIN / APD receiver
- Simplex(Bidi) LC connector
- Link distance 500m~2km over MM fiber / 2~160km over SM fiber

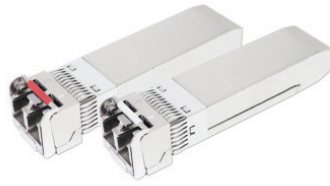
# Fiber Optical Transceiver



125M ~ 2.5G CWDM SFP  
40/80/120km

## Features

- Data Rate 125M / 155M / 622M / 1.0625G / 1.25G / 2.125G / 2.5G
- 1270~1610nm DFB transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 40~120km ( Link Budget 18~36dB )



125M ~ 2.5G DWDM SFP  
40/80/120/160/200km

## Features

- Data Rate 125M / 155M / 622M / 1.0625G / 1.25G / 2.125G / 2.5G
- 50GHz / 100GHz ITU Grid, C-Band DWDM EML transmitter + PIN / APD receiver
- Duplex LC connector
- Link distance 40~200km



1G CSFP 2CH 1000BX 20km

## Features

- Compliant with IEEE802.3ah 1000BASE-BX10
- Compliant with CSFP MSA Option #2
- Data Rate 1.0625Gbps (1GFC) / 1.25Gbps (GE)
- 2CH Bi-directional 1310nm FP / 1490nm DFB / 1550nm DFB transmitter + PIN receiver
- Dual Bidi LC connector
- Link distance 20km over SM fiber



10G CSFP+ 2CH 10G-BX 10km

## Features

- Compliant with 10GBASE-BX
- Compliant with CSFP MSA Option #2
- Support 1.0625Gbps to 11.32Gbps Multi-Rate
- 2CH Bi-directional 1270nm / 1330nm CWDM DFB transmitter + PIN receiver
- Dual Bidi LC connector
- Link distance 10km over SM fiber



## Features

- Ultra Low Data Rate 1bps ~ 52Mbps
- Standard Data Rate 125M / 1.25G / 2.5G
- 850nm VCSEL / 1310nm FP / 1310nm DFB / 1550nm DFB / CWDM DFB transmitter + PIN / APD receiver
- Dual / Bidi SC, FC, ST connector
- Link distance 500m~5km over MM fiber / 2~160km over SM fiber



1b ~ 10G SFF / mini-SFF

## Features

- Ultra Low Data Rate 1bps ~ 35Mbps
- Standard Data Rate 125M / 1.25G / 2.5G / 10G
- 850nm VCSEL / 1310nm FP transmitter + PIN receiver
- Duplex LC connector
- Link distance 500m~2km over MM fiber / 10~60km over SM fiber



GE-100FX / 100LX SFP Converter

## Features

- Compliant with IEEE802.3 100BASE-FX/LX
- Compliant with INF-8074i SFP MSA
- 1310nm FP transmitter + PIN receiver
- Duplex LC connector
- Operate in GE ports of Sitches/Routers
- Interoperable with interfaces compliant to 100BASE-FX/LX
- Link distance 2km over MM fiber / 10km over SM fiber



## Features

- Compliant with ITU-T G.9807.1
- OLT transmitter: 9.953G continuous mode with 1570nm EML
- OLT receiver: 9.953G / 2.488G burst mode with 1270nm APD
- ONU transmitter: 9.953G / 2.488G burst mode with 1270nm DFB
- ONU receiver: 9.953G continuous mode with 1570nm APD
- Simplex(Bidi) SC connector
- Link distance 20km over SM fiber



GPON ONT Stick SFP

## Features

- Compliant with INF-8074i SFP MSA
- Built-in GPON MAC
- Compliant to ITU-T G.984.2 / G.988 OMCI
- 1310nm DFB transmitter + S-TIA receiver
- Support 2.5G and 1G Ethernet
- Simplex(Bidi) SC connector
- Link distance 20km over SM fiber

# GPON / RJ45 Copper Transceiver



GPON SFP OLT/ONU

## Features

- Compliant with ITU-T G.984.2 / 984.5 Class B+ / C+ / C++ / C+++ (+7dm)
- OLT transmitter: 2.488G continuous mode with 1490nm DFB
- OLT receiver: 1.244G burst mode with 1310nm APD
- ONU transmitter: 1.244G burst mode with 1310nm DFB
- ONU receiver: 2.488G continuous mode with 1490nm APD
- Simplex(Bidi) SC connector
- Link distance 20km



EPON/GEPON SFP OLT/ONU

## Features

- Compliant with IEEE 802.3ah Class PX20+ / PX20++
- OLT transmitter: 1.25G continuous mode with 1490nm DFB
- OLT receiver: 1.25G burst mode with 1310nm APD
- ONU transmitter: 1.25G burst mode with 1310nm FP
- ONU receiver: 1.25G continuous mode with 1490nm PIN
- Simplex(Bidi) SC connector
- Link distance 20km



10G SFP+ RJ45 Copper

## Features

- Compliant with IEEE802.3an, 802.3ab and 802.3z
- Support 10GBASE-T/ 5GBASE-T/ 2.5GBASE-T/ 1000BASE-T Multi-Rate
- Auto-negotiates with other 10GBASE-T PHYs
- Auto-detect MDI/MDI-X
- Support RX\_LOS function
- RJ45 connector
- 10G link distance up to 30m with Cat.6a/7, 2.5G/5G link distance up to 50m with Cat.5e, 1G link distance up to 100m with Cat.5e



2.5G SFP RJ45 Copper

## Features

- Compliant with IEEE802.3-2002, 802.3u, 802.3ab and 802.3bz
- Auto-detect MDI/MDI-X on RJ45 port
- Support 2.5GBASE-T and 10/100/1000BASE-T
- Support RX\_LOS function
- RJ45 connector
- Link distance up to 100m with Cat.5e UTP



1G SFP RJ45 Copper

## Features

- Compliant with IEEE802.3-2002 and 802.3ab
- Auto-detect MDI/MDI-X on RJ45 port
- Compatible with 1000BASE-X and 1000BASE-T auto-negotiation
- 10/100/1000BASE-T operation in host system with SGMII interface
- Support RX\_LOS function
- RJ45 connector
- Link distance up to 100m with Cat.5 UTP

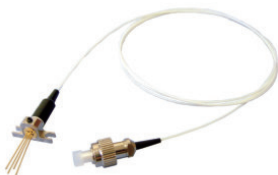


100M SFP RJ45 Copper

## Features

- Compliant with IEEE802.3 and 802.3u Standard
- Auto-detect MDI/MDI-X on RJ45 port
- Support 100BASE-TX
- Support RX\_LOS function
- RJ45 connector
- Link distance up to 100m with Cat.5 UTP

# Discrete Module and parts



Fiber Pigtail Coupled LD / PD module

## Features

- Data Rate 125M / 155M / 1.25G / 2.5G / 4.25G
- Transmitter Laser Diode: 850nm VCSEL / 1310nm FP / 1310nm DFB / 1550nm DFB
- Receiver Photo Diode: PIN / APD
- SC, FC, ST, LC, SMA or customized optical connector
- SM / OM1 / OM2 / OM3 / OM4 fiber pigtail with customized length



Receptacle LD / PD module

## Features

- Data Rate 125M / 155M / 1.25G / 2.5G / 4.25G
- Data Rate 125M / 155M / 1.25G / 2.5G / 4.25G
- Transmitter Laser Diode: 850nm VCSEL / 1310nm FP / 1310nm DFB / 1550nm DFB
- Receiver Photo Diode: PIN / APD
- SC, FC, ST, LC, SMA or customized Receptacle connector
- SM / OM1 / OM2 / OM3 / OM4 fiber stub

# DAC, AOC, Cable, Patch-cord



DAC (Direct Attached Cable) AOC (Active Optical Cable)

## Features

- Data Rate 10G / 25G / 40G / 56G / 100G / 200G / 400G
- Compliant with SFP+ / SFP28 / SFP56 / QSFP+ / QSFP28 / QSFP56 / QSFP-DD / OSFP MSA
- 10G: Up to Passive 7M / Active 12M
- 25G: Up to Passive 5M
- 40G: Up to Passive 5M / Active 12M
- 56G(FDR 14Gx4): Up to Passive 5M
- 100G: Up to Passive 5M
- 200G / 400G: Up to Passive 3M



## Features

- Data Rate 10G / 25G / 40G / 56G / 100G / 200G / 400G
- Compliant with SFP+ / SFP28 / SFP56 / QSFP+ / QSFP28 / QSFP56 / QSFP-DD / OSFP MSA
- 10G / 25G / 40G / 56G: Up to OM3 / OM4 100m
- 100G / 200G / 400G: Up to OM3 70m / OM4 100m



MPO Patch-cord (Indoor)

## Features

- Data Rate 10G / 25G / 40G / 56G / 100G / 200G / 400G
- Compliant with QSFP+ / QSFP28 / QSFP56 / QSFP-DD / OSFP MSA
- 10G / 25G / 40G / 56G: Up to OM3 / OM4 300m
- 100G / 200G / 400G: Up to OM3 70m / OM4 150m



General Patch-cord (Indoor)

## Features

- SC, FC, ST, LC, MU, E2000, MTRJ... Connectors
- SM / OM1 / OM2 / OM3 / OM4 fiber
- Cable Diameter: Bare Fiber / 0.9 / 1.6 / 1.8 / 2.0 / 3.0mm
- Simplex / Duplex / Round Duplex
- PVC / LSZH / OFNR / OFNP cable jacket
- Indoor deployment



Mini Distribution / Distribution / Breakout Cable (Indoor)

## Features

- 4~96 or more Fiber counts available
- SM / OM1 / OM2 / OM3 / OM4 fiber
- Compact Size of Cable Diameter
- PVC, LSZH, OFNR, OFNP cable jacket
- Indoor deployment



Armored Patch-cord / Armored Breakout Cable (Indoor)

## Features

- 1~24 Fiber counts available
- SM / OM1 / OM2 / OM3 / OM4 fiber
- Steel / Aluminum tape armored inside outer PVC / LSZH jacket
- High tensile strength, pressure resistance and re-twist resistance
- Resistance of Flame and rodent biting
- Indoor underground and critical environment deployment



Armored Patch-cord / Armored Breakout Cable (Outdoor)

## Features

- SC, FC, ST, LC, MU, E2000, MTRJ... Connectors
- 1~24 Fiber counts available
- SM / OM1 / OM2 / OM3 / OM4 fiber
- Steel / Aluminum tape armored inside outer TPU jacket
- High tensile strength, pressure resistance and re-twist resistance
- Resistance of Flame and rodent biting
- Outdoor deployment



FTTH Waterproof Cable for Mobile Base Station (Outdoor)

## Features

- 1~4 Fiber counts available
- SM / OM1 / OM2 / OM3 / OM4 fiber
- CPRI / NSN / FULLAXS / PDLC / ODVA / ODC Connector
- Steel / Aluminum tape armored available inside outer LSZH / TPU jacket
- High tensile strength, pressure resistance and re-twist resistance
- Resistance of Flame and rodent biting (for armored type)
- Outdoor deployment for the link between BBU / RRU / AAU / CU / DU



Military Tactical Waterproof Cable (Outdoor)

## Features

- 2~12 Fiber counts available
- SM / OM1 / OM2 / OM3 / OM4 fiber
- Spiral Steel Tube inside outer TPU jacket
- IP68 Military Tactical Waterproof Connector
- High tensile strength, pressure resistance and re-twist resistance
- Resistance of Flame and rodent biting
- Portable Cable Reel available
- Outdoor deployment for Military or Critical application



# Passive Component & Accesorry



FDB ( Fiber Distribution Box)  
/ ODF (Optical Distribution Frame) QAC (Quick Assembly Connector)

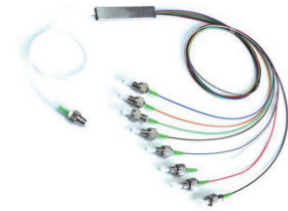
## Features

- 8~120 Ports with SC / FC / ST / LC / or Customized Adaptor
- Rack-Mount / Wall-Mount
- Aluminum / SPCC Plate
- Anti-Rust paint coating
- Sliding Rail / Sliding Splice Tray available
- Cabling and Fusion Pigtail, Accessories available



## Features

- SC/UPC, SC/APC, FC/UPC, FC/APC, LC/UPC, LC/APC Connector
- Pre-Embedded \ Fusion \ Straight Through type
- SC Connector Length 50~60mm
- Optical Insertion Loss <0.3dB, Optical Return Loss >50dB
- Durability <0.2dB change after 500 times matting
- Tensile Strength >30N



PLC / FBT Splitter

## Features

- Compliant with GR-1209-CORE & GR-1221-CORE
- G.657A1 / G.657A2 / G.657B2 Fiber
- 1x2 to 2x128 Configuration
- Wavelength range 1260nm ~ 1650nm / Dual Window / Triple Window / MMF
- Loss Uniformity <2.5dB, PDL <0.4dB
- Steel Tube / Metal Box / Plastic Box / LGX Box / 1U Rack packages



Attenuator

## Features

- Compliant with GR-910-CORE / JIS C5920
- SM / OM1 / OM2 / OM3 / OM4 Fiber
- 0 ~ 40dB Attenuation
- Fixed or Variable Attenuation
- Male to Female / Female to Female
- UPC / APC physical contact polishing



Adaptor

## Features

- SC, FC, ST, LC, MU, E2000, MPO... various type
- Simplex / Duplex / Quad
- PC / APC
- Plastic / Meta Housing
- Female to Female / Female to Male
- Big (2.5mm) to Small (1.25mm) Hybrid available
- Different Connector Hybrid available
- MAX Insertion Loss 0.2~0.5dB

CWDM MUX / DEMUX / OADM

## Features

- 20nm channel spacing
- 18 Channels 1270nm ~ 1610nm
- Average Pair Loss configuration
- Low Insertion Loss & PDL
- High Isolation: Adjacent >30dB / Non-adjacent >45dB
- Monitor / Upgrade / Express port available
- Plastic Box / Metal Box / LGX Box / 1U Rack packages



DWDM MUX / DEMUX / OADM

## Features

- TFF / TAWG / AAWG techniques
- 200GHz / 100GHz / 50GHz channel spacing
- MAX 96 Channels in C-Band wavelength
- Average Pair Loss configuration
- Low Insertion Loss & PDL
- High Isolation: Adjacent >25dB / Non-adjacent >30dB
- Monitor / Upgrade / Express port available
- Plastic Box / Metal Box / LGX Box / 1U Rack packages



LWDM MUX / DEMUX / OADM

## Features

- 800GHz channel spacing
- 12 Channels 1269.23nm ~ 1318.35nm
- Average Pair Loss configuration
- Low Insertion Loss & PDL
- High Isolation: Adjacent >25dB / Non-adjacent >35dB
- Monitor / Upgrade / Express port available
- Plastic Box / Metal Box / LGX Box / 1U Rack packages

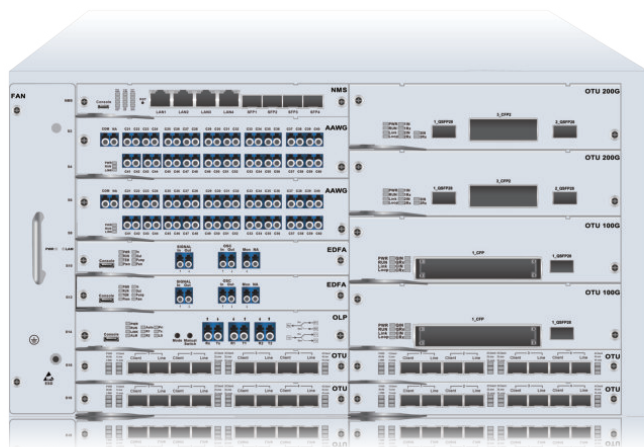


Fiber Clean Tools

## Features

- 2.5mm Clean Pen / Stick for SC, FC, ST, E2000 Connector
- 1.25mm Clean Pen / Stick for LC, MU Connector
- 500~800+ times use for Clean Pen
- MPO Cleaner for MPO Connector
- Clean Wipe / Paper / Tape for various Fiber End Face clean

# OTN DWDM Transmission Platform



## *F520 Series*

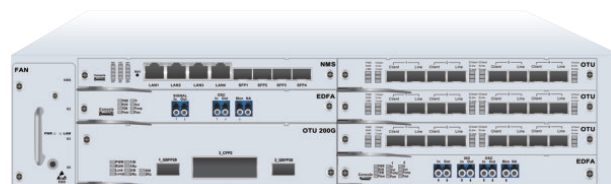
*High Capacity / High Density /  
High Flexibility*

### Features

- 1U, 2U, 5U Chassis
- Low noise figure : typical 5dB
- Gain Flattening Filters ( GFF ) assure flat Gain ( <1dB variance ) over the entire amplified band
- Multiple operating modes : AGC, APC, ACC
- Support Red / Blue port for single-fiber DWDM transmission system
- Optional OSC management channel for remote management
- MON own monitoring port, on-line monitoring optical power and OSNR
- Support 400G / 200G / 100G DCO modules
- Modular design for Power and FAN module
- Hot Pluggable, Easy Replacement
- 1+1 Balanced and Redundancy Power supply, AC / DC optional
- Support SNMP-based Network management
- Support CLI, WEB, Telnet and NMS
- Support Entire network topology, elements auto-discovery and generation
- Support Voice alarm, e-mail alerts, SMS alerts, Real-time online remote monitoring
- Visual Graphic information interface
- Support 4, 8, 20 slot chassis for different capacity requirement

### Application

- Country, Province, State, City backbone and metro network
- Metro DWDM distance extension
- Massive Data Capacity Transmission
- Long-Haul transmission system





Link Fiber to Future

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