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# OPTOELECTRONICS BUSINESS UNIT

To create the brand of your choice by applying perfection for every customer



让科技与生活共铭

LET TECHNOLOGY RESONATE WITH LIFE

# Optoelectronics Business Unit

光电事业部





# 光电·事业部

东莞铭普光磁股份有限公司光电事业部成立于2009年5月，拥有一支高效的管理团队以及具备丰富经验的研发和工艺开发团队。在秉承始终为客户提供高品质、低成本的解决方案的理念下，光电事业部在光电器件和模块的研发、生产制造等方面取得了长足的进步并积累了丰富的经验。具有从TO，到光器件，至光模块以及无源波分系统的垂直整合，以及大规模生产能力。同时也具备了COB和BOX等高端器件封装设计和制造能力。

产品通过了TUV和UL等国际机构的第三方安全认证，具备优良的协议符合性和兼容性。主要产品有GPON/EPON ONU和OLT、10G EPON ONU和OLT、XG(S)-PON ONU和OLT、SFP、SFP+、XFP、SFP28、QSFP28等类型光模块和AOC(有源光缆)，速率涵盖155M~2.5G, 5G, 6G, 8G, 10G, 25G, 40G以及100G、400G等，传输距离从100m到140km不等。产品广泛应用于电信网、数据网、接入网(光纤到户(FTTH))、无线网(4GLTE, 5G)、数据中心和安防监控等领域。

始终坚持以客户为中心的经营理念，为客户提供全方位优质服务。在国内各省会城市、台湾、及美国、德国、韩国、日本、新加坡等地区及国家建立了营销网络，其中美国设立了两个办事处。在深圳，武汉和东莞设立了3处研发中心与中诺基亚、中兴、烽火等业界知名客户建立了良好的商务关系，并已进入美国、欧洲市场和韩国、日本等亚太市场。



## OSA

PIGTAIL BOSA  
SC BOSA  
TRI-OSA  
QUAD-OSA

## PON transceiver

GPON/EPON  
10G EPON  
XGPON/XGSPON  
COMBO PON

## AOC

10G AOC  
25G AOC  
40G AOC  
100G AOC

## Transceiver

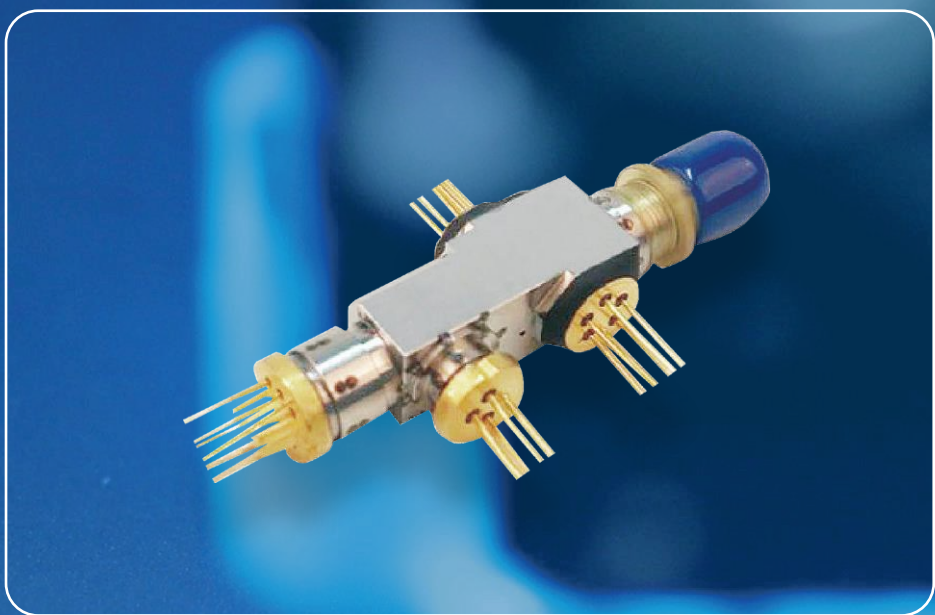
1~6G SFP  
10G SFP+  
25G SFP28  
40G QSFP+  
100G QSFP28  
400G QSFP-DD

# OPTOELECTRONICS BUSINESS UNIT

The Optoelectronics Business Unit (OEBU) of Dongguan Mentech Optical & Magnetic Co.,Ltd. was founded in May 2009 and is known for its efficient management team and experienced R&D and process development team. By upholding the philosophy of always providing customers with high-quality and cost-efficient solutions, the OEBU has come a long way the R&D and manufacturing of optical components and modules. It is capable of vertical integration from TO to optical OSA and transceiver, as well as production on a large scale. It is also capable of high-end optical component package design and manufacturing of COB and BOX. Certified by TUV, UL, and so on, its products are excellent in protocol compliance and compatibility. They mainly include OSAs and AOCs such as the GPON/EPON ONU & OLT, 10G EPON ONU & OLT, XG(S)-PON ONU & OLT, SFP SFP+, XFP, SFP28, and QSFP28. Their rates cover 155M~10G, 25G, and 40G, 100G, 400G, while their transmission distances, range from 100m to 120km. They are widely used on the carrier network, data network, access network, wireless network, datacenter, security surveillance, etc. Sticking to the business philosophy of customer orientation, the OEBU provides customers with total service of high quality. It has a sales network covering the provincial capitals in China and such countries and regions as Taiwan, the U.S, Germany, South Korea, Japan, and Singapore, while it has two offices in the U.S. With a good business relationship with renowned customers in the industry such as ZTE, Fiberhome, and Samsung, it has established its presence the American and European markets and Asia Pacific markets such as South Korea and Japan.



# OSA >>>



## Quad-OSA XGSPON&GPON Combo

Single fiber quad-directional data link  
 XGSPON: 10Gbps laser and 10Gbps receiver  
 GPON: 2.5Gbps laser and 1.25Gbps receiver  
 XGSPON: 1577nm transmitter and 1270nm receiver  
 GPON: 1490nm transmitter and 1310nm receiver  
 Compatible with C+ power range  
 Excellent optical path analysis  
 High reliability  
 SC/UPC Receptacle connector  
 Commercial temperature range: 0°C to 70°C  
 COMBO PON OLT application



### Pigtail BOSA

Single fiber bi-directional data links  
 EPON ONU: 1.25Gbps 1310nm FP laser and 1.25Gbps 1490nm PIN-TIA  
 GPON ONU: 1.25Gbps 1310nm DFB laser and 2.5Gbps 1490nm PIN-TIA  
 High reliability  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 Application: FTTx



### SC/UPC BOSA

Single fiber bi-directional data links  
 EPON ONU: 1.25Gbps 1310nm FP laser and 1.25Gbps 1490nm PIN-TIA  
 GPON ONU: 1.25Gbps 1310nm DFB laser and 2.5Gbps 1490nm PIN-TIA  
 Excellent optical path analysis  
 High reliability  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 Application: FTTx



### Tri-OSA

GPON ONU laser: 1.25Gbps 1310nm  
 GPON ONU receiver: 2.5Gbps 1490nm PIN-TIA and 1550nm PIN PD  
 Laser transmitter: 4-pin TO-56 configuration  
 Digital optical receiver: 5-pin TO-46 configuration  
 Analog optical receiver: 3-pin TO-46 configuration  
 Excellent optical path analysis  
 High reliability  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 Application: FTTx

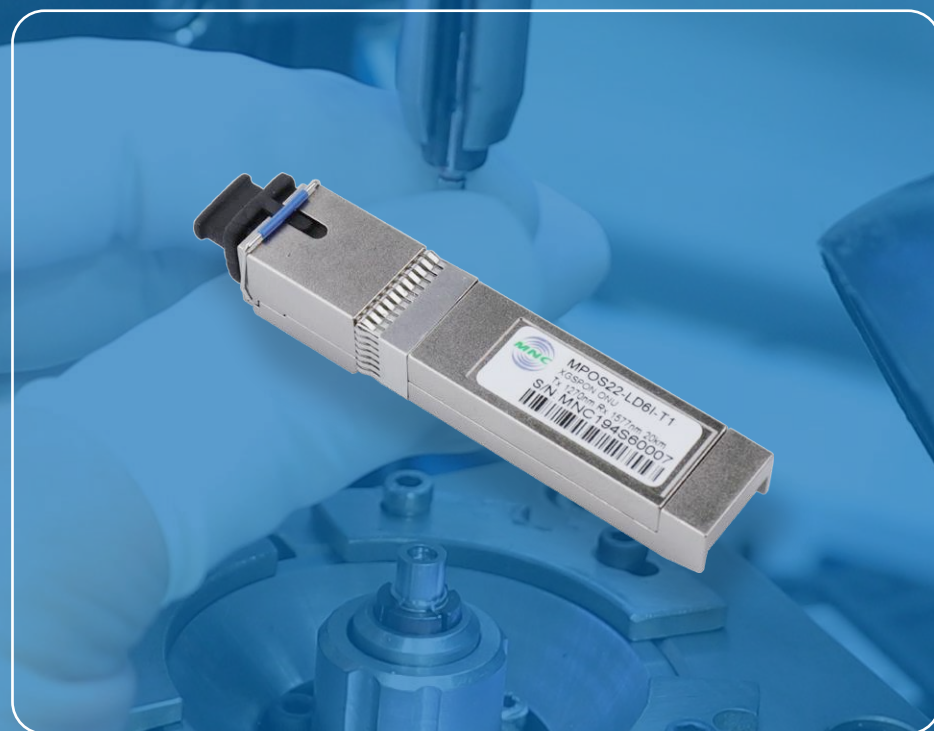


### Quad-OSA XGSPON&GPON Combo

Single fiber quad-directional data link  
 XGSPON: 10Gbps laser and 2.5Gbps receiver  
 GPON: 2.5Gbps laser and 1.25Gbps receiver  
 XGSPON: 1577nm transmitter and 1270nm receiver  
 GPON: 1490nm transmitter and 1310nm receiver  
 Compatible with C+ power range  
 Excellent optical path analysis  
 High reliability  
 SC/UPC Receptacle connector.  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 COMBO PON OLT application



# PON Transceiver >>>



## XGPON/XGSPON

### XGPON/XGSPON ONU SFP+

XGPON ONU: Operating at 2.5Gbps(TX) and 10Gbps(RX)  
 XGSPON ONU: Operating at 10Gbps(TX) and 10Gbps(RX)  
 1270nm transmitter and 1577nm receiver  
 Up to 20km on SMF  
 Less than 2W power consumption  
 Commercial temperature range: 0°C to 70°C  
 XGPON ONU application  
 XGSPON ONU application

## GPON & EPON



### EPON ONU SFP

EPON ONU: Operating at 1.25Gbps(TX) and 1.25Gbps(RX)  
 1310nm transmitter and 1490nm receiver  
 Up to 20km on SMF  
 Less than 1W power consumption  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 EPON application: Ethernet P2MP, FTTx and EPON ONU side



### EPON OLT SFP

Single fiber bi-directional data links  
 EPON: Operating at 1.25Gbps(TX) and 1.25Gbps(RX)  
 1490nm transmitter and 1310nm receiver  
 Up to 20km on SMF  
 Less than 1.5W power consumption  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 EPON application



### GPON OLT SFP

Single fiber bi-directional data links  
 GPON: Operating at 2.5Gbps(TX) and 1.25Gbps(RX)  
 1490nm transmitter and 1310nm receiver  
 Up to 20km on SMF  
 Less than 1.7W power consumption  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 GPON application



### GPON ONU SFP

GPON ONU: Operating at 1.25Gbps(TX) and 2.5Gbps(RX)  
 1310nm transmitter and 1490nm receiver  
 Up to 20km on SMF  
 Less than 1W power consumption  
 Temperature range: 0°C to 70°C & -40°C to 85°C  
 GPON application: GPON ONT and FTTx

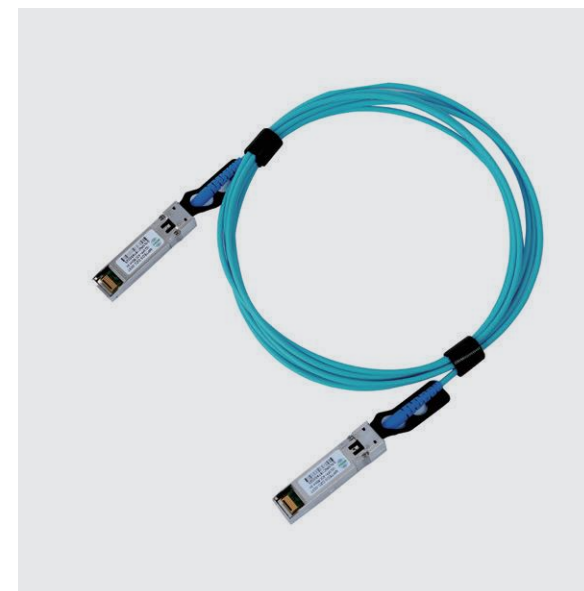


# AOC >>>



## 25G AOC

Hot-pluggable SFP28 cable ends  
 Supports 25.7813 Gb/s bit rate  
 Input equalization and output emphasis controls  
 OM3 Cable length: 1m to 70m  
 Power dissipation < 1W per cable end  
 Single 3.3V power supply  
 Temperature range: 0°C to 70°C  
 Ethernet application



## 10G AOC

Hot-pluggable SFP+ cable ends  
 Supports 10.3125 Gb/s bit rate  
 RoHS2.0 compliant  
 OM2 Cable length: 1m to 300m  
 Single 3.3V power supply  
 Power dissipation < 0.8W per cable end  
 Commercial temperature range: 0°C to 70°C  
 Ethernet, Fiber Channel, 1X QDR/1X DDR/1X SDR Infiniband,  
 High capacity IO with SFP+ interface, Data center and in-rack connection



## 40G AOC

High-density 40 Gb/s interconnectivity  
 OM2 Cable length: 1m to 100m  
 Power dissipation < 1.3W per cable end Commercial  
 temperature range 0°C to 70°C  
 Excellent signal integrity  
 Infiniband QDR, Ethernet, Fiber Channel, HPC Interconnec-  
 tions application



## 100G AOC

High-density 100 Gb/s interconnectivity  
 OM3 Cable length: 1m to 70m  
 Power dissipation < 2.5W per cable end  
 Commercial temperature range 0°C to 70°C  
 Excellent signal integrity  
 100G Ethernet, EDR



Transceiver >>>



## 155M~6G SFP



### SFP Series

#### 155 Mb/s~6 Gb/s Series

Hot-pluggable SFP footprint  
 Supports 155 Mb/s to 6.25 Gb/s bit rates  
 Duplex LC connector  
 RoHS2.0 compliant  
 Single 3.3V power supply  
 Power dissipation < 800mW  
 Industrial temperature range -40°C to 85°C

## 10G SFP+



### 10GBASE-SR 300m

Hot-pluggable SFP+ footprint  
 Supports 9.95 to 10.5 Gb/s bit rates  
 Power dissipation < 0.8W  
 RoHS2.0 compliant  
 Commercial temperature range 0°C to 70°C  
 Single 3.3V power supply  
 Maximum link length of 300m on OM4 MMF  
 850nm VCSEL laser  
 Duplex LC connector



### 10GBASE-LR 10km

Hot-pluggable SFP+ footprint  
 Up to 10km link length  
 Supports 9.95 to 10.5 Gb/s bit rates  
 < 1W power dissipation  
 RoHS2.0 compliant  
 Commercial temperature range 0°C to 70°C  
 Single 3.3V power supply  
 Uncooled 1310nm DFB laser  
 Receiver limiting electrical interface  
 Duplex LC connector



### 10Gb/s Bidirectional 10/20/40/60km

Hot-pluggable SFP+ footprint  
 Bidirectional 10G over single strand single mode fiber  
 Supports 9.95 to 11.3 Gb/s bit rates  
 Power dissipation < 1.5W  
 RoHS2.0 compliant  
 Industrial temperature range -40°C to 85°C  
 Single 3.3V power supply  
 Maximum link length of 60km  
 Uncooled DFB  
 Single LC connector



### 10Gb/s CWDM Series

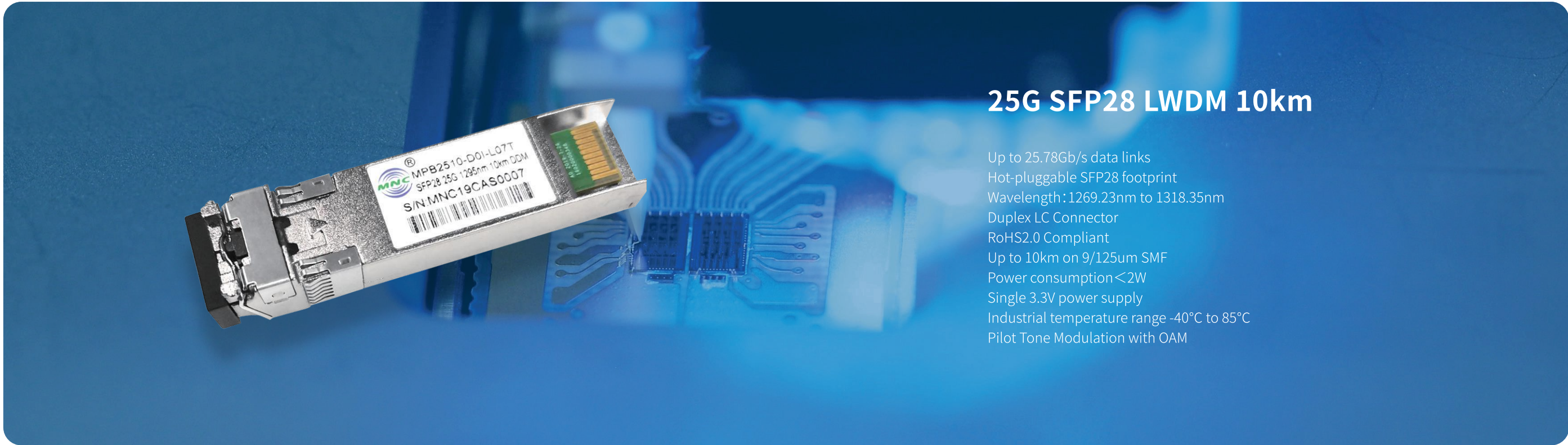
Hot-pluggable SFP+ footprint  
 Supports 9.95 to 10.5 Gb/s bit rates  
 Power dissipation < 2W  
 RoHS2.0 compliant  
 Commercial temperature range 0°C to 70°C  
 Single 3.3V power supply  
 Maximum link length of 80km  
 Receiver limiting electrical interface  
 Duplex LC connector  
 10G Ethernet, CPRI wireless(LTE), SONET/SDH application



### 10GBASE-ER/ZR 40/80km

Hot-pluggable SFP+ footprint  
 Supports 9.95 to 11.3 Gb/s bit rates  
 1550nm DFB laser  
 Power dissipation < 2W  
 Commercial temperature range 0°C to 70°C  
 RoHS2.0 compliant  
 Single 3.3V power supply  
 Duplex LC connector





## 25G SFP28 LWDM 10km

- Up to 25.78Gb/s data links
- Hot-pluggable SFP28 footprint
- Wavelength: 1269.23nm to 1318.35nm
- Duplex LC Connector
- RoHS2.0 Compliant
- Up to 10km on 9/125um SMF
- Power consumption <2W
- Single 3.3V power supply
- Industrial temperature range -40°C to 85°C
- Pilot Tone Modulation with OAM

## 25G SFP28



### 25G SR 100m

- Up to 25.78 Gb/s data links
- Hot-pluggable SFP28 footprint
- Duplex LC connector
- RoHS2.0 compliant
- Maximum link length of 70m on OM3 Multimode Fiber (MMF) and 100m on OM4 MMF
- Power consumption < 1.2W
- Single 3.3V power supply
- Commercial temperature range 0°C to 70°C
- Tri Rate 8.5/14.025/28.05 Gb/s Fiber Channel application



### 25G LR 10km

- Up to 25.78 Gb/s rate
- Hot-pluggable SFP28 footprint
- 1310nm DFB laser transmitter
- Duplex LC connector
- RoHS2.0 compliant
- Up to 10 km on 9/125µm SMF
- Power consumption < 1.5W
- Single 3.3V power supply
- Industrial temperature range -40°C to 85°C



### 25G LR CWDM 10km

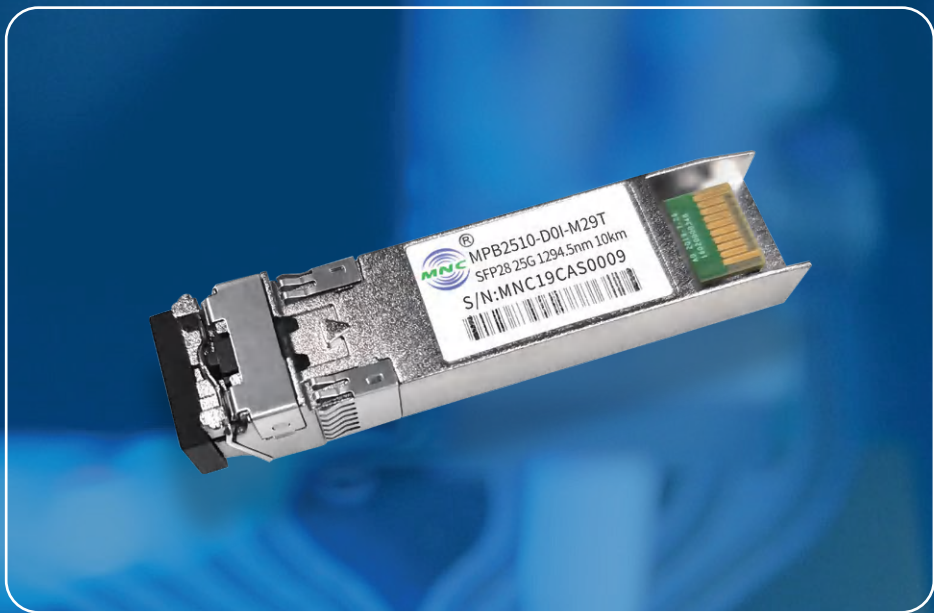
- Up to 25.78 Gb/s data links
- Hot-pluggable SFP28 footprint
- Duplex LC connector
- RoHS2.0 compliant
- Up to 10 km on 9/125µm SMF
- Power consumption < 1.5W
- Single 3.3V power supply
- Industrial temperature range -40°C to 85°C



### 25G LR Bidirectional 10km

- Up to 25.78 Gb/s bi-directional rate
- Hot-pluggable SFP28 footprint
- Duplex LC connector
- RoHS2.0 compliant
- Up to 10 km on 9/125µm SMF
- Power consumption < 1.5W
- Single 3.3V power supply
- Industrial temperature range -40°C to 85°C





## 25G SFP28 MWDW 10km

- Up to 25.78Gb/s data links
- Hot-pluggable SFP28 footprint
- Wavelength: 1267.5nm to 1374.5nm
- Duplex LC Connector
- RoHS2.0 Compliant
- Up to 10km on 9/125um SMF
- Power consumption < 2W
- Single 3.3V power supply
- Industrial temperature range -40°C to 85°C
- Pilot Tone Modulation with OAM

## 40G QSFP+



### 40GBASE-SR4 100m

- Four-channel full-duplex transceiver module
- Hot-pluggable QSFP+ form factor
- Supports 41.25 Gb/s aggregate bit rates
- Maximum link length of 100m on OM3 Multimode Fiber (MMF) and 150m on OM4 MMF
- Maximum power dissipation < 1.5W
- Commercial temperature range 0°C to 70°C
- Single 1x12 MPO receptacle
- RoHS2.0 compliant
- 40GBASE-SR4 Ethernet, Infiniband QDR interconnects, Breakout to 10GBASE-SR Ethernet application



### 40GBASE-LR4 10km

- Hot-pluggable QSFP+ form factor
- Supports 41.25Gb/s aggregate bit rates
- Power dissipation < 3.5W
- RoHS2.0 compliant
- Commercial temperature range 0°C to 70°C
- Single 3.3V power supply
- Maximum link length of 10km on Single Mode Fiber (SMF)
- Uncooled 4x10.3Gb/s CWDM transmitter
- Duplex LC receptacles
- 40GBASE-LR4 Ethernet application



### 40G LR4 (PSM4) 10km

- Hot-pluggable QSFP+ form factor
- Supports 41.25 Gb/s aggregate bit rates
- Power dissipation < 3.5W
- RoHS2.0 compliant
- Commercial case temperature range of 0°C to 70°C
- Single 3.3V power supply
- Maximum link length of 10km on Single Mode Fiber (SMF)
- DFB transmitter
- Single MPO connector receptacle
- Infiniband Connectivity SDR/DDR/QDR



### 40GBASE-ER4 40km

- Hot-pluggable QSFP+ form factor
- Supports 41.3 Gb/s aggregate bit rates
- Power dissipation < 3.5W
- RoHS2.0 compliant
- Commercial case temperature range of 0°C to 70°C
- Single 3.3V power supply
- Maximum link length of 40km on Single Mode Fiber (SMF)
- Uncooled 4x10Gb/s CWDM transmitter
- Duplex LC receptacles



## 100G QSFP28



## 100G CWDM4 2km

Hot-pluggable QSFP28 form factor  
Supports 103.1Gb/s aggregate bit rate  
Power dissipation < 3.5W  
RoHS2.0 compliant  
Commercial case temperature range of 0°C to 70°C  
Single 3.3V power supply  
Up to 2km of Single Mode Fiber (SMF)  
4x25.78Gb/s CWDM transmitter  
Duplex LC receptacles  
100G CWDM4 applications



## 100GBASE-LR4 10km

Hot-pluggable QSFP28 form factor  
Supports 103.1Gb/s aggregate bit rate  
Power dissipation < 3.5W  
RoHS2.0 compliant  
Commercial case temperature range of 0°C to 70°C  
Single 3.3V power supply  
Maximum link length of 10km on Single Mode Fiber (SMF)  
4x25.78Gb/s DFB-based LAN-WDM transmitter  
Duplex LC receptacles  
100GBASE-LR4 100G Ethernet application



## 100GBASE-SR4 100m

Hot-pluggable QSFP28 form factor  
Supports 103.1Gb/s aggregate bit rate  
Power dissipation < 2.5W  
RoHS2.0 compliant  
Commercial case temperature range of 0°C to 70°C  
Single 3.3V power supply  
Maximum link length of 100m on OM4 Multimode Fiber (MMF)  
4x25.78Gb/s 850nm VCSEL laser  
Single MPO12 receptacle  
100GBASE-SR4 100G Ethernet application



## 100G LR4 (PSM4) 500m

Hot-pluggable QSFP28 form factor  
Supports 103.1Gb/s aggregate bit rate  
Power dissipation < 3.5W  
RoHS2.0 compliant  
Commercial case temperature range of 0°C to 70°C  
Single 3.3V power supply  
Maximum link length of 500m on Single Mode Fiber (SMF)  
4x25.78Gb/s DFB transmitter  
Single MPO connector receptacle  
100G Ethernet links, Infiniband DDR/EDR, Datacenter and Enterprise networking application





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