

## 10G SFP+ Transceiver



### Product Features

- 10Gb/s serial optical interface compliant to 802.3ae 10GBASE-LR, single
- LC connector for bi-directional application, over 20km SMF
- Compliant with SFP+ MSA
- Simplex LC Connector
- 1270 nm DFB LD Transmitter, 1330 nm Receiver
- 1330 nm DFB LD Transmitter, 1270 nm Receiver
- AC/AC Coupling according to MSA
- Single +3.3 V Power Supply
- Operating Case Temperature Range 0°C~+70°C
- RoHS Compliant

### Application

- 10G Ethernet Links
- High-speed Storage Area Networks
- Custom high-speed data pipes

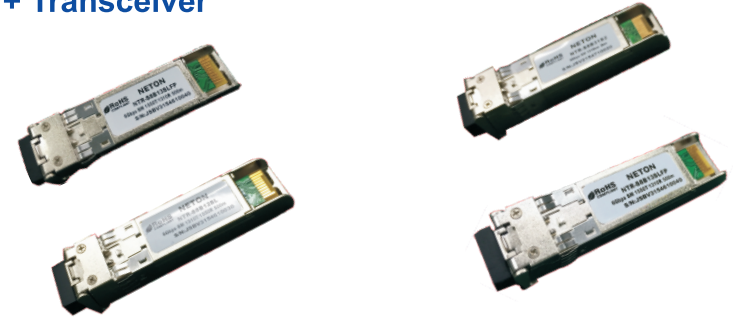
### Order In Formation

Type	Fiber Type	Wavelength(nm)	Fiber Length(Km)
NTR-S8D12L (1270T/1330R)	SM	1270T/1330R	20
NTR-S8D13L (1330T/1270R)	SM	1330T/1270R	20
NTR-S8D31D	SM	1310DFB	10
NTR-S8D31D-XXXX	SM	1270~1330	10

### Remarks:

Multiple mode products also is available.

## 6G SFP+ Transceiver



### Product Features

- Up to 6 Gb/s Data Links
- Compliant with SFP+ MSA
- Simplex LC Connector
- 1310 nm FP LD Transmitter, 1550 nm Receiver  
1550 nm FP LD or DFB Transmitter, 1310 nm Receiver  
1270 nm DFB LD Transmitter, 1330 nm Receiver  
1330 nm DFB LD Transmitter, 1270 nm Receiver
- AC/AC Coupling according to MSA
- Digital diagnostic SFF-8472 compliant
- Distance up to 0.5 km 2km 20km at SM Fiber
- Single +3.3 V Power Supply
- Operating case temperature range 0°C~+70°C
- RoHS Compliant

### Application

- High-speed data links
- Custom high-speed data pipes

### Remarks:

1. BIDI or CWDM products is available .
2. Both SM and MM available

## HD/SD-SDI 1.5Gbps/155Mbps Bi-Di Asymmetry Transceiver Module



### Product Features

- SMPTE 297-2006 Compatible
- 1-Fiber 1×9 Optical Transceiver
- Support Video Pathological Patterns for SD-SDI, HD-SDI
- Simplex SC/FC/ST Connector
- Single +3.3 V Power Supply
- RoHS-6 Compliant
- Operating Case Temperature Range 0°C~+70°C
- Class 1 Laser International Safety Standard IEC-60825 Compliant

### Application

- SMPTE 292M/297M/259M Compliant Electrical-to-Optical Interfaces
- High-density Video Routers

### Remarks:

HD-SDI Transmitter and Receiver Products available

## HD/SD-SDI SFP Products



### Product Features

- SMPTE 297-2006 Compatible
- 1-Fiber Bi-Directional SFP Optical Transceiver
- Speed from 155 Mbps to 3Gbps with up to 60 km Single-mode Fiber
- Support Video Pathological Patterns for SD-SDI, HD-SDI and 3G-SDI
- Simplex LC Connector
- Single +3.3 V Power Supply
- RoHS-6 Compliant
- Operating Case Temperature Range 0°C~+70°C
- Compliant with Small Form-Factor Pluggable (SFP) Transceiver Multi-Source Agreement (MSA) and SFF-8472 v9.3

### Application

- SMPTE 292M/297M/259M Compliant Electrical-to-Optical Interfaces
- High-density Video Routers

### Remarks:

- 1.1.5G/155M and 3G/155M BIDI products available
- 2.1.5G Transmitter and 3G Transmitter products available
- 3.1.5G Receiver and 3G Receiver products available

## 155Mbps DDM SFP MM Transceiver Module(LPD)



### Product Features

- 1310nm FP Laser Transmitter
- Up to 2 Km with 62.5/125m MMF
- Single 3.3V power supply
- Operating case Temperature range -40°C to +85°C
- Hot-Pluggable electrical interface
- Digital diagnostic monitoring
- LC duplex receptacle
- Low power dissipation
- Excellent EMI and ESD protection
- Compliant with Small Form-Factor Pluggable (SFP) Transceiver Multi-Source Agreement (MSA) and SFF-8472 v9.3

### Application

- ATM equipments
- SONET/OC-3、SDH/STM-1 equipments
- 100Mbps Fast Ethernet equipments

### Remarks:

Both SM and MM products available

## 155Mbps 1×9 MM Transceiver Module(Electroplating)



### Product Features

- Multi-sourced 1 × 9 pin packaged
- 1310nm FP Laser Transmitter
- FC/ST double receptacle
- Metal case
- Excellent EMI and ESD protection
- Up to 5Km with 62.5/125m MMF
- Single 3.3V power supply
- LVPECL signal input and output
- Wave solderable and washable with process plug inserted
- Operating Case Temperature range -40°C to +85°C

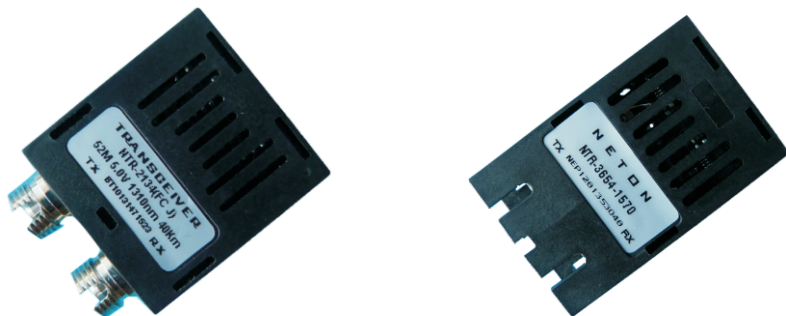
### Application

- ATM equipments
- SONET/OC-3、SDH/STM-1 equipments
- 100Mbps Fast Ethernet equipments

### Remarks:

Both SM and MM available

## 1×9 SM series modules



### Order In Formation

Type	Data rate(bps)	Description	Supply Voltage
NTR-20XX	500K	SM,20-40Km	+5V
NTR-21XX	52M	SM,OC-1,20-120Km	+5V
NTR-22XX	155M	SM,OC-3,20-120Km	+3.3V/+5V
NTR-26XX	1250M	SM,OC-24,20-100Km	+3.3V/+5V
NTR-28XXV	2488M	SM,OC-48,20-80Km	+3.3V
NTR-201X	500K	SM,BIDI,20-40Km	+5V
NTR-211X	52M	SM,BIDI,OC-1,20-80Km	+3.3V/+5V
NTR-221X	155M	SM,BIDI,OC-3,20-80Km	+3.3V/+5V
NTR-261X	1250M	SM,BIDI,OC-24,20-60Km	+3.3V/+5V
NTR-281XV	2488M	SM,BIDI,OC-48,20-60Km	+3.3V

## 1×9 SM series modules



### Product Features

- Multi-sourced 1×9 pin packaged
- 1310nm FP /DFB or 1550nm FP /DFB Laser Transmitter
- SC /FC/ST single receptacle or Pigtail SC/PC, ST/PC, FC/PC optional
- Up to 120Km with 9/125um SMF
- Single 3.3V, 5V, power supply
- PECL or TTL signal input and output
- Wave solderable and washable with process plug inserted
- Two temperature ranges:  
0°C to +70°C  
-40°C to +85°C for industry level

### Application

- ATM equipments
- SONET SDH equipments
- Fast Ethernet
- Other Optic Linic

### Remarks:

- 1.Dural fiber, BIDI, SM/MM products available.
- 2.Transmitter and Receiver Products avaicable
- 3.CWDM Products avaicable

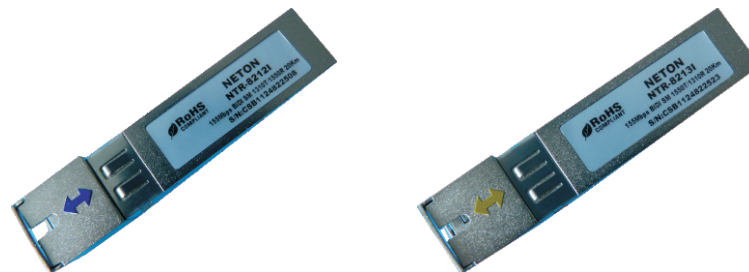
## SFP SM DDM Series Module



### Order In Formation

Type	Data rate(bps)	Description	Supply Voltage
NTR-82 XX	155M	SM,OC-3,20-120Km	+3.3V
NTR-86 XX	1250M	SM,OC-24,10-80Km	+3.3V
NTR-88 XX	2488M	SM,OC-48,2-80Km	+3.3V
NTR-821 X	155M	SM,BIDI,OC-3,20-80Km	+3.3V
NTR-861 X	1250M	SM,BIDI,OC-24,20-60Km	+3.3V
NTR-881 X	2488M	SM,BIDI,OC-48,20-60Km	+3.3V

## SFP SM DDM Series Module



### Product Features

- 1310nm FP/DFB or 1550nm FP/DFB Laser Transmitter
- Hot-Pluggable electrical interface
- Digital diagnostic monitoring Sc/Lc Single or Lcdaplex Recepracle
- Low power dissipation
- Excellent EMI and ESD protection
- Compliant with Small Form-Factor Pluggable (SFP) Transceiver Multi-Source Agreement (MSA) and SFF-8472 v9.3
- Two temperature ranges:  
0°C to +70°C  
-40°C to +85

### Application

- ATM
- Fiber channel
- SONET/SDH
- Fast Ethernet
- Other optic link

### Remarks:

- 1.Dural fiber, BIDI, SM/MM products available.
- 2.Transmitter and Receiver Products avaicable

## 2×5/2×10 SFF Transceiver Module



### Product Features

- 1310nm or 1550 wavelength Laser Transmitter
- Single 3.3V power supply
- Standard 2×5 pin or 2×10 footprint (MSA Compliant)
- Operating Case Temperature range  
0°C to +70°C  
-40°C to +85
- Duplex LC connector
- Low power dissipation
- Excellent EMI and ESD protection
- Compliant with Small Form Factor (SFF) Transceivers Multi-Sourcing Agreement (MSA)

### Application

- ATM equipments
- SONET/SDH
- Other optic link

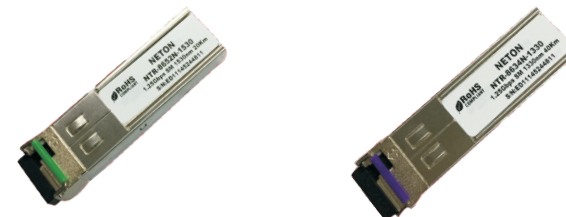
### Order Information

Type	Data rate(bps)	Description	Supply Voltage
NTR-92 XX	155M	SM,OC-3,20-120Km	+3.3V
NTR-96 XX	1250M	SM,OC-24,10-80Km	+3.3V
NTR-A92 XX	155M	SM,OC-3,20-120Km	+3.3V
NTR-A96 XX	1250M	SM,OC-24,10-80Km	+3.3V

### Remarks:

Dural fiber, BIDI, SM/MM products available.

## CWDM SFP DDM Transceiver Module



### Product Features

- Transceiver unit with independent CWDM DFB Laser diode transmitter
- Up to 120 Km with 9/125um SMF
- +3.3V single power supply
- Operating Temperature Range (0°C to +70°C)
- Hot-Pluggable electrical interface
- Digital diagnostic monitoring
- LC duplex receptacle
- Low power dissipation
- Excellent EMI and ESD protection
- Compliant with Small Form-Factor Pluggable (SFP) Transceiver Multi-Source Agreement (MSA) and SFF-8472 v9.3

### Order Information

Type	Data rate(bps)	Description	Supply Voltage
NTR-82XX- XXXX	155M	SM,OC-3,20-120Km	+3.3V
NTR-86XX- XXXX	1250M	SM,OC-24,20-100Km	+3.3V
NTR-88XX- XXXX	2488M	SM,OC-48,20-80Km	+3.3V

XXXX:1270~1610nm

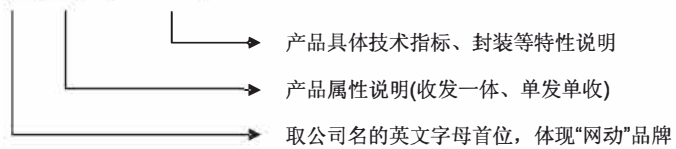
### Remarks:

BIDI products available

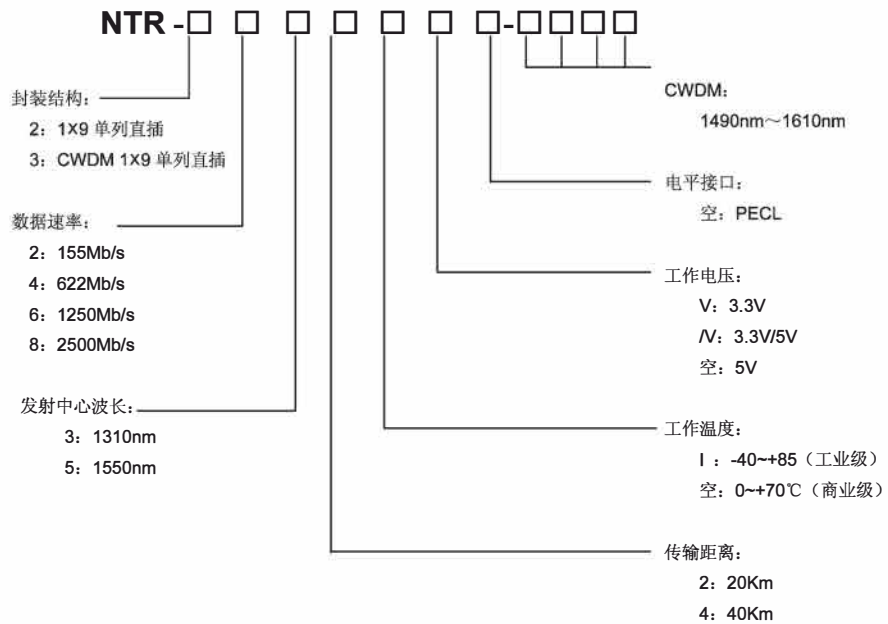
## 产 品 命 名

### 一、光模块总体命名思路：

**N XX - XXX ...**



### 以 1X9 PECL 电平单模双纤收发一体模块(TR)为例



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