

# Products / Optical Transceivers



Trinity Photonics manufactures optical transceivers for infocom and datacom with data rates from 1 Gbps to 10 Gbps (standard products). These transceivers are certified for high quality and high reliability with small form factors.

## Features:

- Data rate from 1 Gbps to 10 Gbps (standard transceivers)
- Bi-directional (BIDI) transceiver from 1 Gbps to 10 Gbps
- Small Form Factor and hot pluggable (plug and play)
- Laser sources with FP, VCSEL and DFB
- Transmission distance up to 120 km
- High sensitivity APD receiver
- FCC, CE, RoHS compliance
- Customized design available (esp. for advanced 40G/100G products)
- Compatible with switches and media converters from different vendors
- 3 years extended warranty

## Application:

- For optical links in switches and media converters
- LANs, FTTH, FTTB and access networks
- Servers and switches in data centers

## Selection Guide:



BIDI SFP Transceivers (SC or LC)



CWDM SFP Transceivers



10Gbps SFP+ Transceivers

(1) 10/100/1000M Transceivers									
Type	Part No.	Data Rate	Wavelength (Tx/Rx)	Distance	Source	Tx (dBm)	Rx (dBm)	Connector	Temp
BIDI SFP	TPM-B351-SC3	1.25 Gbps	1310/1550	3km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B531-SC3	1.25 Gbps	1550/1310	3km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B351-SC20	1.25 Gbps	1310/1550	20km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B531-SC20	1.25 Gbps	1550/1310	20km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B351-SC40	1.25 Gbps	1310/1550	40km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B531-SC40	1.25 Gbps	1550/1310	40km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B351-SC80	1.25 Gbps	1310/1550	80km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B531-SC80	1.25 Gbps	1550/1310	80km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B351-SC120	1.25 Gbps	1310/1550	120km	FP+PIN	-13~-7	≤-24	SC	0~70
	TPM-B531-SC120	1.25 Gbps	1550/1310	120km	FP+PIN	-13~-7	≤-24	SC	0~70
CWDM SFP	TPM-xxx1-LC40	1.25Gbps	(1470 - 1610)	40km	DFB+PIN	-2~+3	≤-25	LC	0~70
	TPM-xxx1-LC80	1.25Gbps	(1470 - 1610)	40km	DFB+PIN	0~+5	≤-25	LC	0~70
	TPM-xxx1-LC120	1.25Gbps	(1470 - 1610)	40km	DFB+APD	0~+5	≤-32	LC	0~70
Copper SFP	TPM-CTU-1	10/100/1000M		100m				RJ45	0~70
	TPM-CTU-1A	10/100/1000M		100m				RJ45	0~70

(2) 10G Transceivers									
Type	Part No.	Data Rate	Wavelength (Tx/Rx)	Distance	Source	Tx (dBm)	Rx (dBm)	Connector	Temp
SFP+	TPM-SP8510-LC03	10 Gbps	850	300m	VCSEL+PIN	-5~-1	≤-13	LC	0~70
	TPM-SP3110-LC03	10 Gbps	1310	10km	DFB+PIN	-5~+0.5	≤-14.5	LC	0~70
	TPM-SP85-LC03	10 Gbps	1550	40km	EML+PIN	-1~+4	≤-15	LC	0~70
	TPM-SP85-LC03	10 Gbps	1550	80km	EML+APD	0~+5	≤-23	LC	0~70
BIDI SFP+	TPM-BSP2310-LC10	10 Gbps	1270/1330	10km	DFB+PIN	-5~+0.5	≤-14.5	LC	0~70
	TPM-BSP3210-LC10	10 Gbps	1330/1270	10km	DFB+PIN	-5~+0.5	≤-14.5	LC	0~70
	TPM-BSP2310-LC20	10 Gbps	1270/1330	10km	DFB+PIN	-2~+2	≤-14.5	LC	0~70
	TPM-BSP3210-LC20	10 Gbps	1330/1270	10km	DFB+PIN	-2~+2	≤-14.5	LC	0~70
	TPM-BSP2310-LC40	10 Gbps	1270/1330	10km	DFB+PIN	+1~+5	≤-15	LC	0~70
	TPM-BSP3210-LC40	10 Gbps	1330/1270	10km	DFB+PIN	+1~+5	≤-15	LC	0~70
CWDM SFP+	TPM-SPxxx10-LC40	10 Gbps	(1470 - 1610)	40km	EML+PIN	-4.7~+4	≤-15.8	LC	0~70
	TPM-SPxxx10-LC70	10 Gbps	(1470 - 1610)	70km	EML+APD	-1~+4	≤-24	LC	0~70
DWDM SFP+	TPM-SPxxx10-LC40	10 Gbps	(1528 - 1567)	40km	EML+PIN	-4.7~+4	≤-15.8	LC	0~70
	TPM-SPxxx10-LC80	10 Gbps	(1528 - 1567)	70km	EML+APD	-1~+4	≤-24	LC	0~70

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Your Partner for the Next Generation Network



Trinity Photonics offers various types of media converter which can be used for converting electrical signals into optical signals for Gigabit Ethernet, HD videos (HDMI input), Analog composite video and audio.

### Features:

- 10/100/1000 Ethernet (1 or 2 optical ports)
- UTP ports with 1 or 4 ports for 10/100/1000 Ethernet
- Uni-directional or Bi-directional HD transmission
- Multiple analog video and audio channels
- Transmission range from 3km to 120km
- Different wavelength available
- Customized design available
- CE, FCC and RoHS compliance



10/100/1000M Optical Media Converters

### Technical Parameters for ONU-Mini series:

- Standard protocol 10/100/1000M Ethernet: 10/100/1000Base-T and 1000Base-X
- Optical Ports: 1 SFP port for ONU-Mini-1 and 2 SFP ports for ONU-Mini-4
- UTP Ports: 1 RJ-45 port for ONU-Mini-1 and 4 RJ-45 port for ONU-Mini-4
- UTP ports with 1 or 4 ports for 10/100/1000 Ethernet
- 12 Gbps switching capacity for ONU-Mini-4
- Operation condition: 0°C to 60°C, 5% to 90% humidity
- Power supply: 5V DC 3A
- Dimensions: 25mm x 70mm x 95mm (ONU-Mini-1) 30mm x 110mm x 140mm (ONU-Mini-4)



Front



Rear

ONU-Mini-1

10/100/1000M UTP ports x 1  
Optical Ports (SFP) x 1



Front



Rear

ONU-Mini-4

10/100/1000M UTP ports x 4  
Optical Ports (SFP) x 2

### Application:

- FTTC, FTTB and FTTH
- Gigabit Ethernet for LANs and Access Networks
- Support large scale WiFi network
- HD video transmission and display (HDMI in/out or Composite in/out)



Wall-mount Fiber-to-Home Optical Node (ONU-Mini\_1)

### Selection Guide:

Model	Description
<b>Gigabit Ethernet</b>	
ONU-Mini-1	10/100/1000M Ethernet, 1 optical SFP slot + 1 UTP port
ONU-Mini-4	10/100/1000M Ethernet, 2 optical SFP slot + 4 UTP port with 12Gbps switching capacity
<b>Video Broadcast</b>	
<b>HD Videos</b>	
ONU-HDMI-S	Video Sender, 1 HDMI video input (1080p), 1 optical port
ONU-HDMI-R	Video Receiver, 1 HDMI video output (1080p), 1 optical port
ONU-HDMI-B	Video Transceiver, 1 HDMI video input, 1 HDMI video output, 1 optical port (optional for RS-232, USB function)
<b>Analog Videos</b>	
ONU-V1A2S	Video Sender for 1 video channel, 2 audio channels and 1 RS232
ONU-V1A2R	Video Receiver for 1 video channel, 2 audio channels and 1 RS232
ONU-VnA2nB	Video Transceiver for n video channels, 2n audio channels and n RS232