



# Industrial SFP Transceiver

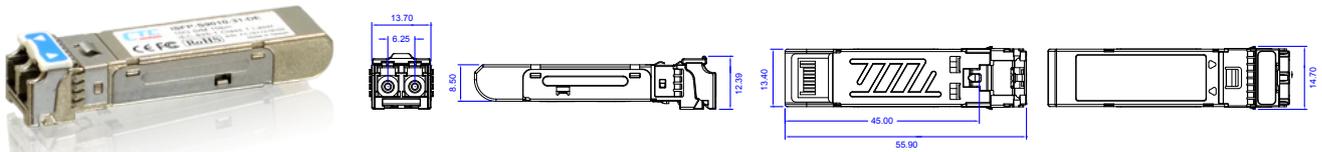
- 10G 10GBase-X for Optic**
- 1.25G 1000Base-X for Optic**
- 1.25G 1000Base-T for UTP**
- 155Mbps 100Base-FX for Optic**
- 100Mbps Long Reach Ethernet extender for UTP**

CTC Union's industrial SFP Transceivers are highly reliable, for serial optical data communications applications specified for single mode fiber operation at 1.25G/155M bps. They operate with +3.3V power supplies and are intended for single mode or multi-mode fiber, operating at a nominal wavelength of 1310nm/1550nm/850nm. Each SFP Transceiver consists of a transmitter optical subassembly (TOSA), a receiver optical subassembly (ROSA) and an electrical subassembly. CTC Union's industrial SFP transceivers ensure your networks operate with maximum reliability, performance, and flexibility.

## Feature

- The ISFP series of industrial grade SFP modules have been fully tested with CTC industrial grade product for guaranteed compatibility and performance. The best performance can be guaranteed even in mission-critical applications
- Single 3.3V power supply
- Duplex or Simplex LC receptacle connector
- Hot Pluggable
- Lower power dissipation
- All 10G SFP+ compliant to IEEE802.3ae 10GBase-X Ethernet over fiber
- All Gigabit SFP compliant to IEEE802.3z 1000Base-X and IEEE802.3ab 1000Base-T
- All Fast Ethernet SFP Compliant to IEEE802.3u 100Base-FX
- Industrial standard small form pluggable (SFP) package
- Compliant with Multi-Source Agreement (MSA) Small Form Factor Pluggable (SFP)
- Eye safety compliant with Class 1 laser product standard IEC825-1
- CE, FCC class B certification
- RoHS compliant
- 5 years warranty

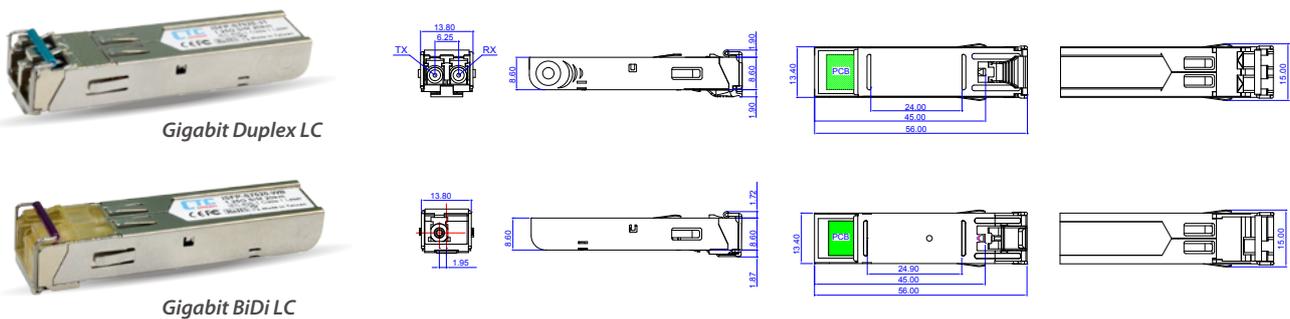
### 10Gbps 10GBase-X Fiber SFP+



### Order Information

Model Name	Cable Type	Typical Distance	Wavelength (nm)	TX (dBm) (Min~Max)	RX Sensitivity (dBm)	Power Budget (dB)	Saturation (dBm)	Power Consumption	DDMI	Operating Temperature
ISFP-M9000-85-D	MM	300m (OM3)	850	-6.5~-1	-9.9	3.4	-1	1W	V	-10~70°C
ISFP-M9000-85-DE	MM	300m (OM3)	850	-6.5~-1	-9.9	3.4	-1	1W	V	-40~85°C
ISFP-S9010-31-D	SM	10km	1310	-8~-0.5	-14.4	6.4	0.5	1W	V	-10~70°C
ISFP-S9010-31-DE	SM	10km	1310	-8~-0.5	-14.4	6.4	0.5	1W	V	-40~85°C
ISFP-S9040-31-D	SM	40km	1310	0.5~5	-15.5	16	0.5	1W	V	-10~70°C
ISFP-S9040-31-DE	SM	40km	1310	0.5~5	-15.5	16	0.5	1W	V	-40~85°C

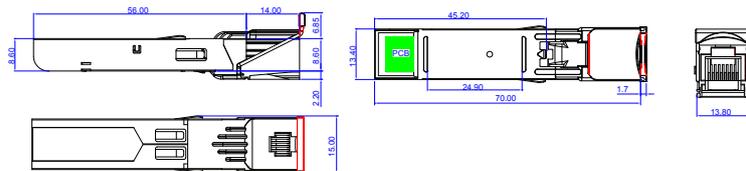
### 1.25Gbps 1000Base-X Fiber SFP



Order Information

Model Name	Cable Type	Typical Distance	Wavelength (nm)	TX (dBm) (Min~Max)	RX Sensitivity (dBm)	Power Budget (dB)	Saturation (dBm)	Power Consumption	DDMI	Operating Temperature
ISFP-M7000-85	MM	550m	850	-9.5~-4	-17	7.5	-3	1W		-10~70°C
ISFP-M7000-85-D	MM	550m	850	-9.5~-4	-17	7.5	-3	1W	V	-10~70°C
ISFP-M7000-85-E	MM	550m	850	-9.5~-4	-17	7.5	-3	1W		-40~85°C
ISFP-M7000-85-DE	MM	550m	850	-9.5~-4	-17	7.5	-3	1W	V	-40~85°C
ISFP-M7002-31	MM	2km	1310	-9~-1	-19	10	-1	1W		-10~70°C
ISFP-M7002-31-D	MM	2km	1310	-9~-1	-19	10	-1	1W	V	-10~70°C
ISFP-M7002-31-E	MM	2km	1310	-9~-1	-19	10	-1	1W		-40~85°C
ISFP-M7002-31-DE	MM	2km	1310	-9~-1	-19	10	-1	1W	V	-40~85°C
ISFP-S7020-31	SM	20km	1310	-8~-2	-23	15	-1	1W		-10~70°C
ISFP-S7020-31-D	SM	20km	1310	-8~-2	-23	15	-1	1W	V	-10~70°C
ISFP-S7020-31-E	SM	20km	1310	-8~-2	-23	15	-1	1W		-40~85°C
ISFP-S7020-31-DE	SM	20km	1310	-8~-2	-23	15	-1	1W	V	-40~85°C
ISFP-S7040-31-D	SM	40km	1310	-2~3	-23	21	-3	1W	V	-10~70°C
ISFP-S7040-31-DE	SM	40km	1310	-2~3	-23	21	-3	1W	V	-40~85°C
ISFP-S7020-WA-D	SM	20km	T1310 / R1550	-8~-2	-23	15	-2	1W	V	-10~70°C
ISFP-S7020-WB-D	SM	20km	T1550 / R1310	-8~-2	-23	15	-2	1W	V	-10~70°C
ISFP-S7020-WA-DE	SM	20km	T1310 / R1550	-8~-2	-23	15	-2	1W	V	-40~85°C
ISFP-S7020-WB-DE	SM	20km	T1550 / R1310	-8~-2	-23	15	-2	1W	V	-40~85°C

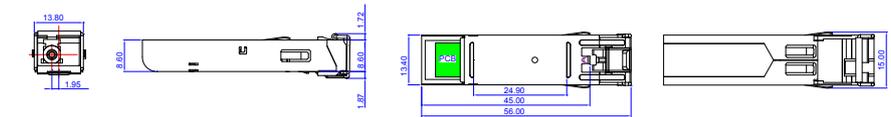
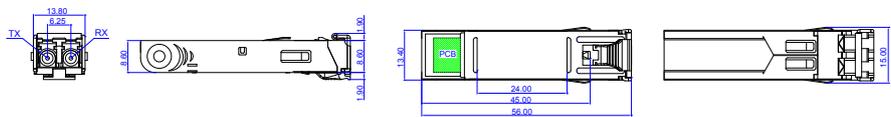
■ 1.25Gbps 1000Base-T UTP SFP



Order Information

Model Name	Cable Type	Typical Distance	Power Consumption	Operating Temperature
ISFP-T7T00-00	UTP Cat 5E	100m	1.1W	-10~70°C
ISFP-T7T00-00-E	UTP Cat 5E	100m	1.1W	-40~85°C

■ 155Mbps 100Base-FX fiber SFP



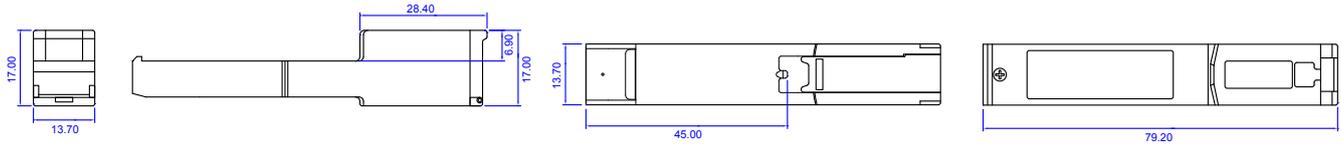
Order Information

Model Name	Cable Type	Typical Distance	Wavelength (nm)	TX (dBm) (Min~Max)	RX Sensitivity (dBm)	Power Budget (dB)	Saturation (dBm)	Power Consumption	DDMI	Operating Temperature
ISFP-M5002-31	MM	2km	1310	-20~-14	-32	12	-8	1W		-10~70°C
ISFP-M5002-31-D	MM	2km	1310	-20~-14	-32	12	-8	1W	V	-10~70°C
ISFP-M5002-31-E	MM	2km	1310	-20~-14	-32	12	-8	1W		-40~85°C
ISFP-M5002-31-DE	MM	2km	1310	-20~-14	-32	12	-8	1W	V	-40~85°C
ISFP-S5030-31	SM	30km	1310	-15~-8	-34	19	-5	1W		-10~70°C

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ISFP-S5030-31-D	SM	30km	1310	-15~-8	-34	19	-5	1W	V	-10~70°C
ISFP-S5030-31-E	SM	30km	1310	-15~-8	-34	19	-5	1W		-40~85°C
ISFP-S5030-31-DE	SM	30km	1310	-15~-8	-34	19	-5	1W	V	-40~85°C
ISFP-S5050-31-D	SM	50km	1310	-5~0	-35	30	-5	1W	V	-10~70°C
ISFP-S5050-31-DE	SM	50km	1310	-5~0	-35	30	-5	1W	V	-40~85°C
ISFP-S5020-WA-D	SM	20km	T1310 / R1550	-14~-8	-32	18	-3	1W	V	-10~70°C
ISFP-S5020-WB-D	SM	20km	T1550 / R1310	-14~-8	-32	18	-3	1W	V	-10~70°C
ISFP-S5020-WA-DE	SM	20km	T1310 / R1550	-14~-8	-32	18	-3	1W	V	-40~85°C
ISFP-S5020-WB-DE	SM	20km	T1550 / R1310	-14~-8	-32	18	-3	1W	V	-40~85°C

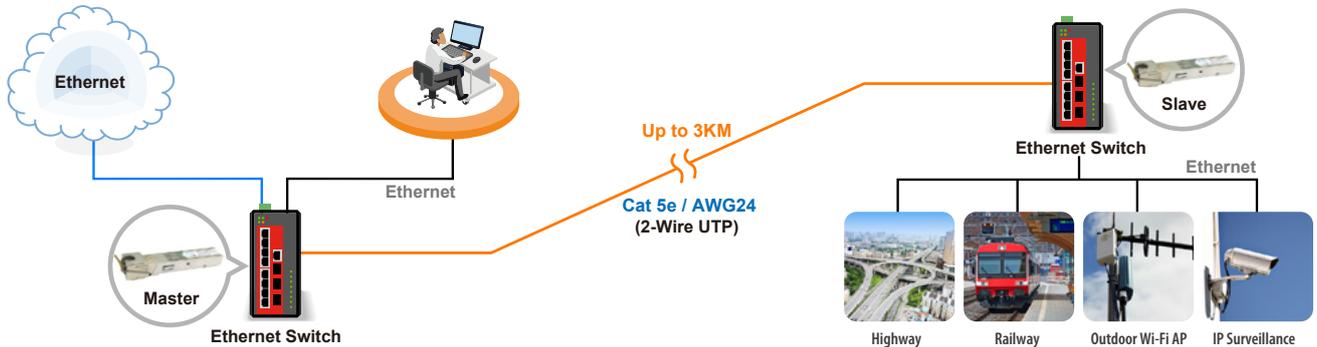
## Long Reach Ethernet extender SFP for UTP (2 wire)



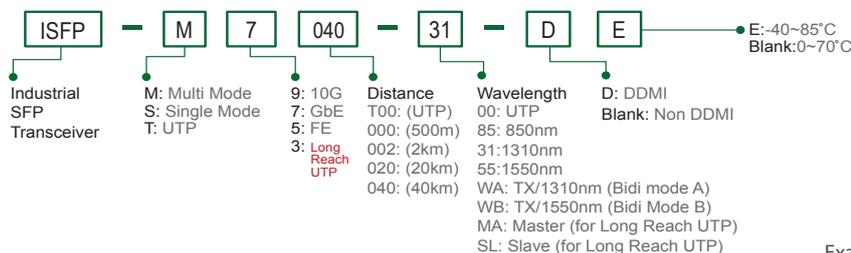
## Order Information

Model Name	Cable (2 wire)	Connector	Distance (meter) / Data rate (Mbps)				Power Consumption	Master/Slave side	Operating Temperature
ISFP-T3T00-MA	Cat 5E/ AWG 24 UTP (Phone line)	RJ45/RJ11	400meter /100Mbps	1000meter /20Mbps	1500meter /10Mbps	3000meter /2Mbps	2.1W	Master	-10~70°C
ISFP-T3T00-SL								Slave	-10~70°C
ISFP-T3T00-MA-E								Master	-40~85°C
ISFP-T3T00-SL-E								Slave	-40~85°C

## Application



## ISFP Naming Rule



ISFP - □□□□□ - □□ - □□  
Example: ISFP - S9010 - 31 - DE