



Fiber Transceiver

Hot-Pluggable Fiber Transceiver Modules

- 100Gbps QSFP28
- 40Gbps QSFP+
- 16Gbps SFP+
- 10Gbps SFP+
- 10Gbps Tunable SFP+
- 1.25Gbps SFP
- 155Mbps SFP

CTC Union's SFP/SFP+/QSFP/QSFP28 Transceivers are high performance, multi-purpose modules for optical data communications applications specified for multi-mode or single mode at 155M, 1Gbps, 10Gbps, 16Gbps, 40Gbps and 100Gbps. They operate with +3.3V power supplies and are intended for single mode or multi-mode fiber, operating at a nominal wavelength of 850nm, 1310nm and 1550nm or CWDM/DWDM wavelength. Each fiber transceiver module consists of a transmitter optical subassembly, a receiver optical subassembly and an electrical subassembly with duplex LC transceiver designed for short and long haul application. CTC Union's fiber transceivers ensure your networks operate with maximum reliability, performance, and flexibility.

Features

- Compliant to SFF-8636 QSFP28 MSA (100G QSFP28)
- Compliant to SFF-8436 QSFP+ MSA (40G QSFP)
- Single 3.3V power supply
- Duplex or Simplex LC receptacle connector
- Built-in digital diagnostic function
- Single 3.3V power supply
- RoHS compliant
- Lower power dissipation
- Hot Pluggable

100Gbps QSFP28

Model Name	Cable Type	Typical Distance	Wavelength (nm)	TX(dBm) (Min ~ Max)	RX Sensitivity (dBm)	Power Budget (dB)	100G Base	Power Consumption	DDMI	Operating Temperature
QSFP28-000-SR4	MMF	100m	850nm VCSEL	-8.4 ~ +2.4	-9.2	0.8	SR4	2.5	V	0 ~ 70°C
QSFP28-010-LR4	SMF	10km	1310nm LWDM	-4.3 ~ +4.5	-8.6	4.3	LR4	2.5	V	0 ~ 70°C
QSFP28-040-ER4	SMF	40km	1310 LWDM	-2.9 ~ +4.5	-14.65	11.75	ER4	2.5	V	0 ~ 70°C

40Gbps QSFP+ LC

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
QSFP-000-SR4	MM	100m	850	-7.6 ~ -1	-10	2.4	+3.4	1.5	V	0 ~ 70°C
QSFP-002-IR4	SM	2km	1310	-8.2 ~ +0.5	-12.6	4.4	+3	1.5	V	0 ~ 70°C
QSFP-010-LR4	SM	10km	1310	-8 ~ +2.3	-12.6	4.6	+3	1.5	V	0 ~ 70°C
QSFP-040-ER4	SM	40km	1271	-3.7 ~ +4.5	-20.2	16.5	+3.8	1.5	V	0 ~ 70°C
			1291							
			1311							
			1331							

16Gbps SFP+ LC

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
SFM-3000-85	MM	100m on OM3	850	-6.5 ~ -1.2	-10.5	4	-1	1W	V	0 ~ 70°C
SFS-3010-31	SM	10km	1310	-4 ~ +2	-10.9	6.9	2	1W	V	0 ~ 70°C
SFS-3040-Cxx	SM	40km	CWDM 147 ~ 155	-1 ~ +3	-14	13	1	1W	V	0 ~ 70°C

Cxx: C47:1471nm, C49:1491nm, C51:1511nm, C53:1531nm, C55:1551nm

10Gbps SFP+ LC

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
SFM-1000-SR85	MM	300m	850	-6.5 ~ -1	-11.1	4.6	-1	1W	V	0 ~ 70°C
SFS-1010-LR31	SM	10km	1310	-6 ~ +0.5	-14.4	8.4	0.5	1W	V	0 ~ 70°C
SFS-1020-LR31	SM	20km	1310	-3 ~ +0.5	-15	12	0.5	1W	V	0 ~ 70°C
SFS-1040-ER55	SM	40km	1550	-4.7 ~ +4	-15.8	11.1	-1	1W	V	0 ~ 70°C
SFS-1010-WA	SM	10km	T1270/R1330	-4 ~ +1	-14	10	0.5	1W	V	0 ~ 70°C
SFS-1010-WB	SM	10km	T1330/R1270	-4 ~ +1	-14	10	0.5	1W	V	0 ~ 70°C
SFS-1020-WA	SM	20km	T1270/R1330	-2 ~ +2	-14	12	0.5	1W	V	0 ~ 70°C
SFS-1020-WB	SM	20km	T1330/R1270	-2 ~ +2	-14	12	0.5	1W	V	0 ~ 70°C
SFS-1030-Cxx-DD	SM	30km	1270 ~ 1450nm	-1 ~ +4	<-15	14	0.5	1W	V	0 ~ 70°C

Cxx: C27:1271nm, C29:1291nm, C31:1311nm, C33:1331nm, C35:1351nm, C37:1371nm, C39:1391nm, C41:1411nm, C43:1431nm, C45:1451nm

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10Gbps Tunable SFP+ LC

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
SFS-1080-TDW5	SM	80km	Ch20	-1 ~ +3	-24	23	-7	< 1.8W	V	0 ~70°C

1.25Gbps SFP LC

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
SFM-7000-S85	MM	550m	850	-9.5 ~ -4	-17	7.5	-3	1W		0 ~70°C
SFM-7000-S85-DD	MM	550m	850	-9.5 ~ -4	-17	7.5	-3	1W	V	0 ~70°C
SFM-7000-L31	MM	2km	1310	-9 ~ -1	-19	10	-1	1W		0 ~70°C
SFM-7000-L31-DD	MM	2km	1310	-9 ~ -1	-19	10	-1	1W	V	0 ~70°C
SFS-7020-L31	SM	20km	1310	-8 ~ -2	-23	15	-1	1W		0 ~70°C
SFS-7020-L31-DD	SM	20km	1310	-8 ~ -2	-23	15	-1	1W	V	0 ~70°C
SFS-7040-L31	SM	40km	1310	-2 ~ +3	-23	21	-3	1W		0 ~70°C
SFS-7040-L31-DD	SM	40km	1310	-2 ~ +3	-23	21	-3	1W	V	0 ~70°C
SFS-7020-WA	SM	20km	T1310 / R1550	-8 ~ -2	-23	15	-2	1W		0 ~70°C
SFS-7020-WA-DD	SM	20km	T1310 / R1550	-8 ~ -2	-23	15	-2	1W	V	0 ~70°C
SFS-7020-WB	SM	20km	T1550 / R1310	-8 ~ -2	-23	15	-2	1W		0 ~70°C
SFS-7020-WB-DD	SM	20km	T1550 / R1310	-8 ~ -2	-23	15	-2	1W	V	0 ~70°C
SFS-7040-WA	SM	40km	T1310 / R1550	-3 ~ +2	-23	20	-3	1W		0 ~70°C
SFS-7040-WA-DD	SM	40km	T1310 / R1550	-3 ~ +2	-23	20	-3	1W	V	0 ~70°C
SFS-7040-WB	SM	40km	T1550 / R1310	-3 ~ +2	-23	20	-3	1W		0 ~70°C
SFS-7040-WB-DD	SM	40km	T1550 / R1310	-3 ~ +2	-23	20	-3	1W	V	0 ~70°C

155Mbps SFP LC

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
SFM-5000-L31	MM	2km	1310	-20 ~ -8	-32	12	-3	1W		0 ~70°C
SFM-5000-L31-DD	MM	2km	1310	-20 ~ -8	-32	12	-3	1W	V	0 ~70°C
SFS-5030-L31	SM	30km	1310	-15 ~ -8	-34	19	-3	1W		0 ~70°C
SFS-5030-L31-DD	SM	30km	1310	-15 ~ -8	-34	19	-3	1W	V	0 ~70°C
SFS-5050-L31	SM	50km	1310	-5 ~ 0	-35	30	-5	1W		0 ~70°C
SFS-5050-L31-DD	SM	50km	1310	-5 ~ 0	-35	30	-5	1W	V	0 ~70°C
SFS-5020-WA	SM	20km	T1310 / R1550	-14 ~ -8	-32	18	-3	1W		0 ~70°C
SFS-5020-WA-DD	SM	20km	T1310 / R1550	-14 ~ -8	-32	18	-3	1W	V	0 ~70°C
SFS-5020-WB	SM	20km	T1550 / R1310	-14 ~ -8	-32	18	-3	1W		0 ~70°C
SFS-5020-WB-DD	SM	20km	T1550 / R1310	-14 ~ -8	-32	18	-3	1W	V	0 ~70°C