

## PASSPORT DATA SHEET

# Single Fiber SFP



Champion ONE's SF SFP or bi-directional (bidi) offers a direct replacement for dual-fiber SFP optics, providing you with more bandwidth on less fiber. Gaining increased capacity without running new fiber can reduce your fiber installation or lease costs, optimizing your fiber plant.

Our carrier-grade SFP products also feature digital diagnostics, also known as digital optical monitoring (DOM), which is supported by the majority of switches and routers.

*Champion ONE Passport transceivers are programmed for universal compatibility across multiple OEM platforms. This open methodology reduces costs and unlocks operational simplicity by reducing sparing costs.*

## Technical Specifications

### STANDARDS AND REGULATORY COMPLIANCE

RoHS compliant  
SFP MSA (mutli-source agreement)  
IEEE Std 802.3  
Fibre Channel Draft Physical Interface Specification  
Compliant with SONET/SDH optical standards

### PROTOCOLS AND DATA RATES

Fast Ethernet (125Mbps)  
Gigabit Ethernet (1.25Gbps)  
SONET OC-3/OC-12/OC-48  
Compact SFP

### CONNECTOR

Simplex LC connector

### WARRANTY

All feature a limited lifetime warranty

### NOTES

Available in standard temperature (0 to 70° C)  
Available "temperature-hardened" (-40 to 85° C)

C1 Part Number	Wavelength (nm) <sup>1</sup>	Fiber Type	Rated Distance (km)	Temp Range (°C)	Hardened Option Available <sup>2</sup>	Description	Output Power (min/max) (dBm)	Receiver Sensitivity (dBm)	Max. Input Power (dBm)
<b>SONET OC-48 (2.488 GBPS) - MULTI-RATE CAPABLE<sup>3</sup> (SONET OC-48/OC-12/OC-3, 1G AND 2G FIBRE CHANNEL, GIGABIT AND FAST ETHERNET)</b>									
OC48SFPxxBSRL	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	2	-5 to 70	Yes	2km rated (OC-48 SR) SF SFP, 1xx0nm	-8 to -3	-19	0
OC48SFPxxBIR1L	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	15	-5 to 70	Yes	15km rated (OC-48 IR-1) SF SFP, 1xx0nm	-5 to 0	-19	0
OC48SFPxxBIR1L-H	1310Tx/1490Rx (xx=34) 1490Tx/1310Rx (xx=43)	SMF	20	-40 to 85	-	20km rated (OC-48 IR-1) SF SFP, 1xx0nm	-5 to 0	-18	0
OC48SFPxxBIR2L	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59)	SMF	40	-5 to 70	Yes <sup>5</sup>	40km rated (OC-48 IR-2) SF SFP, 1xx0nm	-5 to 0	-19	0
OC48SFPxxBIR2L-H	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59)	SMF	40	-40 to 85	-	40km rated (OC-48 IR-2) SF SFP, 1xx0nm, Temperature-Hardened	-3 to 2	-19	-1
OC48SFPxxBLR2L	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59)	SMF	80	-5 to 70	Yes	80km rated (OC-48 LR-2) SF SFP, 1xx0nm	-2 to 3	-28	-7

C1 Part Number	Wavelength (nm) <sup>1</sup>	Fiber Type	Rated Distance (km)	Temp Range (°C)	Hardened Option Available <sup>2</sup>	Description	Output Power (min/max) (dBm)	Receiver Sensitivity (dBm)	Max. Input Power (dBm)
<b>GIGABIT ETHERNET (1.25 GBPS), 1G FIBRE CHANNEL (1.0625 GBPS)</b>									
1000SFPxxB20L	1310Tx/1490Rx (xx=31) 1490Tx/1310Rx (xx=49)	SMF	20	-5 to 75	Yes	20km SF GigE SFP, 1xx0nm	-9 to -3	-20	0
1000SFPxxB40L	1310Tx/1490Rx (xx=34) 1490Tx/1310Rx (xx=43)	SMF	40	0 to 70	Yes	40km SF GigE SFP, 1xx0nm	-5 to 0	-24	0
1000SFPxxB40L	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	40	-5 to 75	Yes	40km SF GigE SFP, 1xx0nm	-5 to 0	-22	0
1000SFPxxB80L	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59)	SMF	80	-5 to 75	Yes	80km SF GigE SFP, 1xx0nm	-2 to 4	-26	0
1000SFPxxB120L	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59) 1490Tx/1550Rx (xx=45) 1550Tx/1490Rx (xx=54)	SMF	120	0 to 70	Yes	120km SF GigE SFP, 1xx0nm	-1 to 4	-31	-7
<b>SONET OC-12 (622 MBPS)</b>									
OC12SFPxxBIR1L	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	15	-10 to 70	Yes	SF OC-12 SONET SFP, IR-1, 1xx0nm	-14 to -8	-28	0
OC12SFPxxBLR1L	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	40	-10 to 70	Yes	SF OC-12/ SONET SFP, LR-1, 1xx0nm	-3 to 2	-28	-3
OC12SFPxxBLR2L	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59)	SMF	80	-5 to 75	Yes	SF OC-12 SONET SFP, LR-2 1xx0nm	-2 to 4	-26	0
<b>SONET OC-3 (155 MBPS), FAST ETHERNET<sup>4</sup> (125 MBPS)</b>									
OC3SFPxxBIR1L	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	15	-10 to 70	Yes	SF OC-3/FastE 15km rated SFP, 1xx0nm	-14 to -8	-28	0
OC3SFPxxBLR1L	1310Tx/1550Rx (xx=31) 1550Tx/1310Rx (xx=55)	SMF	40	-10 to 70	Yes	SF OC-3/FastE 40km rated SFP, 1xx0nm	-5 to 0	-32	0
OC3SFPxxBLR2L	1490Tx/1590Rx (xx=49) 1590Tx/1490Rx (xx=59)	SMF	80	-10 to 70	Yes	SF OC-3/FastE 80km rated SFP, 1xx0nm	-2 to 3	-35	0
<b>COMPACT GIGABIT ETHERNET (1.25 GBPS)</b>									
1000CSFPxxB20L	1310Tx/1490Rx (xx=31) 1490Tx/1310Rx (xx=49)	SMF	20	0 to 70	Yes	Compact GigE SFP 20km rated, 1xx0 nm	-9 to -3	-19	-3

**Notes:**

1. Bidirectional (bidi) transceivers require book-ending or matched wavelength pairs for proper single fiber transmission, e.g., 1 each of 1000SFP31B20L and 1000SFP49B20L.
2. Hardened Option - operating temperature range is -40 to +85°C (-40 to +185°F). Optical specifications are the same. Part number has a "-H" suffix. Example: 1000SFP31B20L-H
3. Multi-rate transceivers will not operate in all platforms at all data rates listed. Contact your account representative for platform-specific questions.
4. Fast Ethernet Compatible. Tested to Bellcore GR-253 and ITU-T G.957 Specifications for SONET OC-3/SDH STM-1 applications.
5. Customized hardened specs listed as C1 Part Number# "OC48SFPxxBIR2L-H"