

TECHNICAL DATA

REFERENCE SUMMARY

PRODUCTS CATEGORY

SFP

- Copper SFP Modules
- Dual Fiber Strands SFP Modules
- CWDM Dual Fiber Strands SFP Modules
- DWDM Dual Fiber Strands SFP Modules
- Single Fiber Strand SFP Modules
- SGMII SFP Modules

DESCRIPTION

SFP (small form factor pluggable) transceivers are hot-swappable in industry-standard cages and connectors, and offer high-speed performance in a compact package. SFP is used for data rates up to 4 Gb/s and DWDM.

PRODUCTS

Dual Fiber Strands SFP Modules



Single Fiber Strand SFP Modules



Copper SFP Modules



FEATURES

- Hot-Pluggable SFP Footprint
- Duplex/ Simplex LC Optical Transceiver
- Digital Diagnostic Function (optional)
- Class 1 Laser International Safety
- Standard IEC-60825 Compliant
- Compatible with SFP Multi-Sourcing Agreement (MSA)
- Copper SFP Modules
- Dual Fiber Strands SFP Modules
- CWDM Dual Fiber Strands SFP Modules
- C and L Band DWDM Dual Fiber Strands SFP Modules
- Single Fiber Strand (Bi-Di) SFP Modules

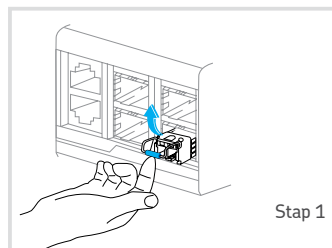
FEATURES

- Gigabit Ethernet Switches and Routers
- Metro Edge Switching
- 100Base-FX Ethernet
- ESCON
- 1G/ 2G/ 4G/ 8G Fiber channel
- FICON
- OC-3 to OC-48

SPECIFICATIONS

SPECIFICATIONS

| | |
|-------------------|--|
| Standards | IEEE 802.3 2003; ANSI X3.297-1997 |
| Dimensions | Width: 0.52" [13 mm] Depth: 2.18" [55 mm] Height: 0.33" [8 mm] |
| Power | 3.3V |
| Power Consumption | 0.66 Watts (fiber) 1.0 Watts (copper) |
| Connector Type | LC |
| Environment | SFP -40°C – 85°C; 0°C – 70°C |
| Compliance | IEC-60825; FDA 21:CFR 1040.10 and 1040.11 |
| Warranty | 2 year |



Step 1 : Open the bale clasp on the SFP module with your index finger in a downward direction

Step 2 : Grasp the SFP module between your thumb and index finger, and carefully remove it from the switching module port

- Copper SFP Modules
- Dual Fiber Strands SFP Modules
- Single Fiber Strand SFP Modules
- CWDM Dual Fiber Strands SFP Modules
- C and L Band DWDM Dual Fiber Strands SFP Modules

Copper SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|-----------------|--------------|------|------------|---------------|----------------|----------------|-------------------|
| 10/100Mb/s | SV-SFP-OC3T1 | | | 0.1 | | | |
| 100Mb/s | SV-SFP-OC3T2 | | | 0.1 | | | |
| 10/100/1000Mb/s | SV-SFP-T1 | | | 0.1 | | | |
| 1000Mb/s | SV-SFP-T2 | | | 0.1 | | | |

Dual Fiber Strands SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|--------------------------------|-----------------|------|------------|---------------|----------------|----------------|-------------------|
| 100Mb/s (FE / STM-1 / OC-3) | SV-SFP-OC3M8D | MM | 850nm | 2 | -10 to -4 | -25 to -3 | 12 |
| | SV-SFP-OC3MD | MM | 1310nm | 2 | -20 to -14 | -31 to -3 | 8 |
| | SV-SFP-OC3SD2 | SM | 1310nm | 20 | -14 to -8 | -32 to -3 | 18 |
| | SV-SFP-OC3SD4 | SM | 1310nm | 40 | -5 to 0 | -34 to -3 | 29 |
| | SV-SFP-OC3SD8 | SM | 1550nm | 80 | -5 to 0 | -34 to -3 | 29 |
| | SV-SFP-OC3SD12 | SM | 1550nm | 120 | 0 to 5 | -34 to -9 | 34 |
| | SV-SFP-OC3SD16 | SM | 1550nm | 160 | 1 to 5 | -37 to -10 | 36 |
| 622 Mb/s (STM-4 / OC-12) | SV-SFP-OC12SD2 | SM | 1310nm | 20 | -15 to -8 | -28 to -3 | 13 |
| | SV-SFP-OC12SD4 | SM | 1310nm | 40 | -3 to 2 | -28 to -8 | 25 |
| | SV-SFP-OC12SD8 | SM | 1550nm | 80 | -3 to 2 | -28 to -3 | 25 |
| | SV-SFP-OC12SD12 | SM | 1550nm | 120 | 0 to 5 | -31 to -9 | 31 |
| 1.25 Gb/s (Gbe / FC) | SV-SFP-SXD | MM | 850nm | 0.22 | -9.5 to -3.5 | -18 to 0 | 5.5 |
| | SV-SFP-LXD1 | SM | 1310nm | 10 | -9 to -3 | -23 to -3 | 14 |
| | SV-SFP-LXD2 | SM | 1310nm | 20 | -9 to -3 | -23 to -3 | 14 |
| | SV-SFP-LXD4 | SM | 1310nm | 40 | -5 to 0 | -23 to -3 | 17 |
| | SV-SFP-ZXD6 | SM | 1550nm | 60 | 0 to 5 | -23 to -3 | 23 |
| | SV-SFP-ZXD8 | SM | 1550nm | 80 | 0 to 5 | -23 to -3 | 23 |
| | SV-SFP-ZXD12 | SM | 1550nm | 120 | 0 to 5 | -31 to -9 | 31 |

Available with options of Industrial temperature and / or No DDM

- Copper SFP Modules
- Dual Fiber Strands SFP Modules
- Single Fiber Strand SFP Modules
- CWDM Dual Fiber Strands SFP Modules
- C and L Band DWDM Dual Fiber Strands SFP Modules

Dual Fiber Strands SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|--|-----------------|------|------------|---------------|----------------|----------------|-------------------|
| 2.125Gb/s (2FC) | SV-SFP-2FCDSX | MM | 850nm | 0.3 | -10 to -3 | -18 to -3 | 5 |
| | SV-SFP-2FCLX1D | SM | 1310nm | 10 | -10 to -3 | -18 to -3 | 8 |
| | SV-SFP-2FCLX2D | SM | 1310nm | 20 | -5 to 0 | -18 to -3 | 13 |
| | SV-SFP-2FCLX4D | SM | 1310nm | 40 | -2 to 3 | -28 to -9 | 26 |
| | SV-SFP-2FCLX8D | SM | 1550nm | 80 | -2 to 3 | -28 to -9 | 26 |
| 2.5 Gb/s (STM-16 / OC-48) | SV-SFP-OC48SX | MM | 850nm | 0.3 | -9 to -3 | -18 to -3 | 5 |
| | SV-SFP-OC48LXD2 | SM | 1310nm | 20 | -5 to 0 | -18 to -3 | 1 |
| | SV-SFP-OC48LXD4 | SM | 1310nm | 40 | -2 to 3 | -28 to -9 | 26 |
| | SV-SFP-OC48ZXD4 | SM | 1550nm | 40 | -2 to 3 | -28 to -9 | 26 |
| | SV-SFP-OC48ZXD8 | SM | 1550nm | 80 | -2 to 3 | -28 to -9 | 26 |
| Multi-rate 100Mb/s to 2.488 Gb/s | SV-SFP-2GSXD | MM | 1550nm | 2 | -10 to -3 | -18 to -3 | 15 |
| | SV-SFP-2GLXD1 | SM | 1310nm | 10 | -5 to 0 | -18 to -3 | 13 |
| | SV-SFP-2GLXD2 | SM | 1310nm | 20 | -5 to 0 | -18 to -3 | 13 |
| | SV-SFP-2GZXD4 | SM | 1310nm | 40 | -2 to 3 | -18 to -3 | 16 |
| | SV-SFP-2GZXD8 | SM | 1550nm | 80 | -2 to 3 | -28 to -9 | 26 |
| Multi-rate 100Mb/s to 4.25Gb/s | SV-SFP-4GSXD | MM | 850nm | 0.55 | -9 to -2.5 | -15 to 0 | 3 |
| | SV-SFP-4GESXD | MM | 1300nm | 2 | -8 to 0 | -28 to -18 | 7 |
| | SV-SFP-4GLXD1 | MM | 1310nm | 10 | -8 to 0 | -28 to -18 | 20 |
| | SV-SFP-4GLXD2 | SM | 1310nm | 20 | 0 to 5 | -28 to -18 | 28 |
| | SV-SFP-4GLXD4 | SM | 1550nm | 40 | 0 to 5 | -28 to -18 | 28 |
| | SV-SFP-4GLXD5 | SM | 1550nm | 50 | 0 to 5 | -28 to -18 | 28 |
| | SV-SFP-4GLXD8 | SM | 1550nm | 80 | 2 to 5 | -35 to -25 | 37 |

Available with options of Industrial temperature and / or No DDM

- Copper SFP Modules
- Dual Fiber Strands SFP Modules
- Single Fiber Strand SFP Modules
- CWDM Dual Fiber Strands SFP Modules
- C and L Band DWDM Dual Fiber Strands SFP Modules

Single Fiber Strand SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|--------------------------------|-----------------|-----------------|-----------------|---------------|----------------|----------------|-------------------|
| 100Mb/s (FE / STM-1 / OC-3) | SV-SFP-OC3SD21 | SM | 1310 TX 1550 RX | 20 | -14 to -8 | -32 to -3 | 20 |
| | SV-SFP-OC3SD22 | SM | 1550 TX 1310 RX | 20 | -14 to -8 | -32 to -3 | 20 |
| | SV-SFP-OC3SD41 | SM | 1310 TX 1550 RX | 40 | -5 to 0 | -32 to -3 | 27 |
| | SV-SFP-OC3SD42 | SM | 1550 TX 1310 RX | 40 | -5 to 0 | -32 to -3 | 27 |
| | SV-SFP-OC3SD61 | SM | 1310 TX 1550 RX | 60 | -3 to +3 | -32 to -3 | 29 |
| | SV-SFP-OC3SD62 | SM | 1550 TX 1310 RX | 60 | -3 to +3 | -32 to -3 | 29 |
| | SV-SFP-OC3SD81 | SM | 1490 TX 1550 RX | 80 | -5 to 0 | -32 to -3 | 27 |
| | SV-SFP-OC3SD82 | SM | 1550 TX 1490 RX | 80 | -5 to 0 | -32 to -3 | 27 |
| | SV-SFP-OC3SD153 | SM | 1490 TX 1550 RX | 150 | 0 to 5 | -32 to -3 | 32 |
| | SV-SFP-OC3SD154 | SM | 1550 TX 1490 RX | 150 | 0 to 5 | -32 to -3 | 32 |
| 1.25 Gb/s (Gbe) | SV-SFP-ESXD1 | MM | 1310 TX 1550 RX | 2 | -10 to -4 | -22 to -3 | 9 |
| | SV-SFP-ESXD2 | MM | 1550 TX 1310 RX | 2 | -10 to -4 | -22 to -3 | 9 |
| | SV-SFP-LXD11 | SM | 1310 TX 1550 RX | 10 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD12 | SM | 1550 TX 1310 RX | 10 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD13 | SM | 1310 TX 1490 RX | 10 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD14 | SM | 1490 TX 1310 RX | 10 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD21 | SM | 1310 TX 1550 RX | 20 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD22 | SM | 1550 TX 1310 RX | 20 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD23 | SM | 1310 TX 1490 RX | 20 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD24 | SM | 1490 TX 1310 RX | 20 | -9 to 3 | -23 to -3 | 14 |
| | SV-SFP-LXD41 | SM | 1310 TX 1550 RX | 40 | -5 to 0 | -23 to -3 | 19 |
| | SV-SFP-LXD42 | SM | 1550 TX 1310 RX | 40 | -5 to 0 | -23 to -3 | 19 |
| | SV-SFP-LXD43 | SM | 1310 TX 1490 RX | 40 | -5 to 0 | -23 to -3 | 19 |
| | SV-SFP-LXD44 | SM | 1490 TX 1310 RX | 40 | -5 to 0 | -23 to -3 | 19 |
| | SV-SFP-LXD85 | SM | 1550 TX 1490 RX | 80 | -2 to 3 | -25 to -3 | 23 |
| | SV-SFP-LXD86 | SM | 1490 TX 1550 RX | 80 | -2 to 3 | -25 to -3 | 23 |
| SV-SFP-LXD125 | SM | 1550 TX 1490 RX | 120 | 0 to 5 | -30 to -9 | 30 | |
| SV-SFP-LXD126 | SM | 1490 TX 1550 RX | 120 | 0 to 5 | -30 to -9 | 30 | |
| SV-SFP-LXD145 | SM | 1550 TX 1490 RX | 140 | 0 to 5 | -30 to -9 | 30 | |
| SV-SFP-LXD146 | SM | 1490 TX 1550 RX | 140 | 0 to 5 | -30 to -9 | 30 | |

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- C and L Band DWDM Dual Fiber Strands SFP Modules

Single Fiber Strand SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|-----------------------------------|----------------|------|-----------------|---------------|----------------|----------------|-------------------|
| Multi-rate 100Mb/s to 1.25Gb/s | SV-SFP-1GLXD41 | SM | 1310 TX 1550 RX | 40 | 0 to -5 | -23 to -3 | 23 |
| | SV-SFP-1GLXD42 | SM | 1550 TX 1310 RX | 40 | 0 to -5 | -23 to -3 | 23 |
| | SV-SFP-1GLXD81 | SM | 1310 TX 1550 RX | 80 | 0 to 5 | -28 to -9 | 28 |
| | SV-SFP-1GLXD82 | SM | 1550 TX 1310 RX | 80 | 0 to 5 | -37 to -10 | 28 |
| Multi-rate 100Mb/s to 2.67Gb/s | SV-SFP-2GLXD21 | SM | 1310 TX 1550 RX | 20 | -5 to 0 | -18 to -3 | 13 |
| | SV-SFP-2GLXD22 | SM | 1550 TX 1310 RX | 20 | -5 to 0 | -18 to -3 | 13 |
| | SV-SFP-2GLXD25 | SM | 1550 TX 1490 RX | 20 | -3 to +3 | -18 to -3 | 13 |
| | SV-SFP-2GLXD26 | SM | 1490 TX 1550 RX | 20 | -5 to 0 | -18 to -3 | 13 |
| | SV-SFP-2GLXD41 | SM | 1310 TX 1550 RX | 40 | -2 to 3 | -18 to 0 | 16 |
| | SV-SFP-2GLXD42 | SM | 1550 TX 1310 RX | 40 | -2 to 3 | -18 to 0 | 16 |
| | SV-SFP-2GLXD45 | SM | 1550 TX 1490 RX | 40 | -2 to 3 | -18 to 0 | 16 |
| | SV-SFP-2GLXD46 | SM | 1490 TX 1550 RX | 40 | -2 to 3 | -18 to 0 | 16 |
| | SV-SFP-2GLXD83 | SM | 1490 TX 1550 RX | 80 | 0 to 5 | -28 to -9 | 28 |
| | SV-SFP-2GLXD84 | SM | 1550 TX 1490 RX | 80 | 0 to 5 | -28 to -9 | 28 |
| | SV-SFP-2GLXD85 | SM | 1490 TX 1550 RX | 80 | 0 to 5 | -28 to -9 | 28 |
| | SV-SFP-2GLXD86 | SM | 1550 TX 1490 RX | 80 | 0 to 5 | -28 to -9 | 28 |

CWDM Dual Fiber Strands SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|----------------------------------|-------------------|------|-----------------|---------------|----------------|----------------|-------------------|
| 100Mb/s (FE / STM-1 / OC-3) | SV-SFP-OC3SD12C## | SM | 1450nm ~ 1610nm | 120 | 0 to 5 | -25 to -3 | 12 |
| | SV-SFP-OC3SD16C## | SM | 1450nm ~ 1610nm | 160 | 1 to 5 | -31 to -3 | 8 |
| 1.25 Gb/s (Gbe / FC) | SV-SFP-ZXD4C## | SM | 1270nm ~ 1610nm | 40 | -5 to 0 | -24 to -3 | 19 |
| | SV-SFP-ZXD8C## | SM | 1450nm ~ 1610nm | 80 | 0 to 5 | -23 to -3 | 23 |
| | SV-SFP-ZXD12C## | SM | 1450nm ~ 1610nm | 120 | 0 to 5 | -31 to -9 | 31 |
| Multi-rate 100Mb/s~1.25 Gb/s | SV-SFP-1GZX8CD## | SM | 1470nm ~ 1610nm | 80 | 0 to 5 | -24 to -3 | 24 |
| Multi-rate 100Mb/s~2.488 Gb/s | SV-SFP-2GZX4CD## | SM | 1270nm ~ 1610nm | 40 | -5 to 2 | -28 to -3 | 23 |
| | SV-SFP-2GZX8CD## | SM | 1470nm ~ 1610nm | 80 | 0 to 5 | -30 to -9 | 30 |
| Multi-rate 100Mb/s~4.25Gb/s | SV-SFP-4GZX4C## | SM | 1470nm ~ 1610nm | 40 | 0 to 5 | -28 to -18 | 28 |
| | SV-SFP-4GZX8C## | SM | 1270nm ~ 1610nm | 80 | 2 to 5 | -28 to -18 | 30 |

Available with option of No DDM ## denotes wavelength range from 1270~1610nm.

27 = 1270nm, 29=1290nm, 31=1310nm, 33=1330nm, 35=1350nm, 37=1370nm, 39=1390nm, 41=1410nm, 43=1430nm, 45=1450nm, 47=1470nm, 49=1490nm, 51=1510nm, 53=1530nm, 55=1550nm,57=1570nm, 59=1590nm, 61=1610nm

For enquires please email to sales@starviewint.com

- Copper SFP Modules
- Dual Fiber Strands SFP Modules
- Single Fiber Strand SFP Modules
- CWDM Dual Fiber Strands SFP Modules
- C and L Band DWDM Dual Fiber Strands SFP Modules

C and L Band DWDM Dual Fiber Strands SFP Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|-----------------------------------|-------------------|------|-----------------|---------------|----------------|----------------|-------------------|
| Multi-rate 100Mb/s ~ 1.25 Gb/s | SV-SFP-ZXD8D## | SM | DWDM Wavelength | 80 | 0 to 4 | -24 to -9 | 24 |
| | SV-SFP-ZXD12D## | SM | DWDM Wavelength | 120 | 0 to 4 | -28 to -9 | 28 |
| Multi-rate 100Mb/s ~ 2.67Gb/s | SV-SFP-2GZXD8D## | SM | DWDM Wavelength | 80 | 0 to 4 | -24 to -9 | 24 |
| | SV-SFP-2GZXD12D## | SM | DWDM Wavelength | 120 | 0 to 4 | -28 to -9 | 28 |

denotes DWDM Wavelength Guide on page 23

C-Band Wavelength

| ## ITU Channel | Wavelength | Frequency (THz) | ## ITU Channel | Wavelength | Frequency (THz) |
|----------------|------------|-----------------|----------------|------------|-----------------|
| 17 | 1563.86 | 191.7 | 40 | 1545.32 | 194.0 |
| 18 | 1563.05 | 191.8 | 41 | 1544.53 | 194.1 |
| 19 | 1562.23 | 191.9 | 42 | 1543.73 | 194.2 |
| 20 | 1561.42 | 192.0 | 43 | 1542.94 | 194.3 |
| 21 | 1560.61 | 192.1 | 44 | 1542.14 | 194.4 |
| 22 | 1559.79 | 192.2 | 45 | 1541.35 | 194.5 |
| 23 | 1558.98 | 192.3 | 46 | 1540.56 | 194.6 |
| 24 | 1558.17 | 192.4 | 47 | 1539.77 | 194.7 |
| 25 | 1557.36 | 192.5 | 48 | 1538.98 | 194.8 |
| 26 | 1556.55 | 192.6 | 49 | 1538.19 | 194.9 |
| 27 | 1555.75 | 192.7 | 50 | 1537.4 | 195.0 |
| 28 | 1554.94 | 192.8 | 51 | 1536.61 | 195.1 |
| 29 | 1554.13 | 192.9 | 52 | 1535.82 | 195.2 |
| 30 | 1553.33 | 193.0 | 53 | 1535.04 | 195.3 |
| 31 | 1552.52 | 193.1 | 54 | 1534.25 | 195.4 |
| 32 | 1551.72 | 193.2 | 55 | 1533.47 | 195.5 |
| 33 | 1550.92 | 193.3 | 56 | 1532.68 | 195.6 |
| 34 | 1550.12 | 193.4 | 57 | 1531.90 | 195.7 |
| 35 | 1549.32 | 193.5 | 58 | 1531.12 | 195.8 |
| 36 | 1548.51 | 193.6 | 59 | 1530.33 | 195.9 |
| 37 | 1547.72 | 193.7 | 60 | 1529.55 | 196.0 |
| 38 | 1546.92 | 193.8 | 61 | 1528.77 | 196.1 |
| 39 | 1546.12 | 193.9 | | | |

L-Band Wavelength

| ## ITU Channel | Wavelength | Frequency (THz) | ## ITU Channel | Wavelength | Frequency (THz) |
|----------------|------------|-----------------|----------------|------------|-----------------|
| 62 | 1610.06 | 186.2 | 89 | 1587.04 | 188.9 |
| 63 | 1609.19 | 186.3 | 90 | 1586.20 | 189.0 |
| 64 | 1608.33 | 186.4 | 91 | 1585.36 | 189.1 |
| 65 | 1607.47 | 186.5 | 92 | 1584.53 | 189.2 |
| 66 | 1606.61 | 186.6 | 93 | 1583.69 | 189.3 |
| 67 | 1605.74 | 186.7 | 94 | 1582.85 | 189.4 |
| 68 | 1604.88 | 186.8 | 95 | 1582.02 | 189.5 |
| 69 | 1604.03 | 186.9 | 96 | 1580.18 | 189.6 |
| 70 | 1603.17 | 187.0 | 97 | 1580.35 | 189.7 |
| 71 | 1602.31 | 187.1 | 98 | 1579.52 | 189.8 |
| 72 | 1601.46 | 187.2 | 00 | 1578.69 | 190.0 |
| 73 | 1600.60 | 187.3 | 01 | 1577.86 | 190.1 |
| 74 | 1599.75 | 187.4 | 02 | 1577.03 | 190.2 |
| 75 | 1598.89 | 187.5 | 03 | 1576.20 | 190.3 |
| 76 | 1598.04 | 187.6 | 04 | 1575.37 | 190.4 |
| 77 | 1597.19 | 187.7 | 05 | 1574.54 | 190.5 |
| 78 | 1596.34 | 187.8 | 06 | 1573.71 | 190.6 |
| 79 | 1595.49 | 187.9 | 07 | 1572.06 | 190.7 |
| 80 | 1594.64 | 188.0 | 08 | 1571.24 | 190.8 |
| 81 | 1593.79 | 188.1 | 09 | 1570.42 | 190.9 |
| 82 | 1592.95 | 188.2 | 10 | 1569.59 | 191.0 |
| 83 | 1592.10 | 188.3 | 11 | 1568.77 | 191.1 |
| 84 | 1591.26 | 188.4 | 12 | 1567.95 | 191.2 |
| 85 | 1590.41 | 188.5 | 13 | 1567.13 | 191.3 |
| 86 | 1589.57 | 188.6 | 14 | 1566.31 | 191.4 |
| 87 | 1588.73 | 188.7 | 15 | 1565.50 | 191.5 |
| 88 | 1587.88 | 188.8 | 16 | 1564.68 | 191.6 |

TECHNICAL DATA

REFERENCE SUMMARY

PRODUCTS CATEGORY

SFP+

- Copper SFP+ Modules
- Dual Fiber Strands SFP+ Modules
- Single Fiber Strand SFP+ Modules
- CWDM Dual Fiber Strands SFP+ Modules
- DWDM Dual Fiber Strands SFP+ Modules

DESCRIPTION

SFP+(Enhanced SFP) is a standardized form factor for fiber optic transceivers and is used in datacom and telecom optical links, offering a smaller footprint and lower power consumption than XFP transceivers. Initial standard applications focused on 8G Fibre Channel, 10G Ethernet and 10G Fibre Channel, where the electrical interface to the host board is a standardized serial interface called SFI. The applications have expanded to include SONET OC-192, SDH STM-64, OTN G.709, CPRI wireless, 16G Fibre Channel, and the emerging 32G Fibre Channel application.

PRODUCTS

Dual Fiber Strands SFP Modules

Single Fiber Strand SFP Modules

Copper SFP+ Modules



FEATURES

- Hot-Pluggable SFP+ Footprint
- Duplex/ Simplex LC Optical Transceiver
- Digital Diagnostic Function
- Class 1 Laser International Safety
- Standard IEC-60825 Compliant
- Compatible with SFP+ Multi-Sourcing Agreement (MSA)
- Dual Fiber Strands SFP+ Modules
- CWDM Dual Strands SFP+ Modules
- C Band DWDM Dual Fiber Strands SFP+ Modules
- Single Fiber Strand (Bi-Di) SFP+ Modules

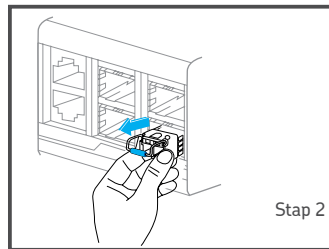
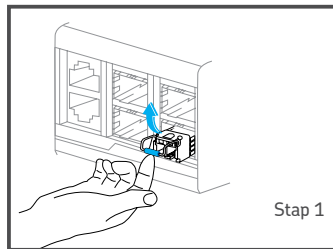
APPLICATIONS

- OC192/ STM64, 9.953Gbps
- 10G Ethernet, 10.312Gbps
- 1000 Base-LX Ethernet
- 8XFC at 8.5Gbps
- 4XFC at 4.25Gbps
- 2XFC at 2.125Gbps
- 1xFC at 1.0625Gbps
- Other optical links

SPECIFICATIONS

SPECIFICATIONS

| | |
|-------------------|--|
| Standards | IEEE 802.3 2003; ANSI X3.297-1997 |
| Dimensions | Width: 0.52" [13 mm] Depth: 2.18" [55 mm] Height: 0.33" [8 mm] |
| Power | 3.3V |
| Power Consumption | 0.66 Watts (fiber) 1.0 Watts (copper) |
| Connector Type | LC |
| Environment | SFP+ -40°C - 85°C; 0°C - 70°C |
| Compliance | IEC-60825; FDA 21.CFR 1040.10 and 1040.11 |
| Warranty | 2 year |



Step 1 : Open the bale clasp on the SFP module with your index finger in a downward direction

Step 2 : Grasp the SFP module between your thumb and index finger, and carefully remove it from the switching module port

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- Single Fiber Strand SFP+ Modules
- CWDM Dual Fiber Strands SFP+ Modules
- C and L Band DWDM Dual Fiber Strands SFP+ Modules

Copper SFP+ Modules

| DateRate | Part Number | Type | Wavelength | Length (m) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|--------------------------|----------------------|------|------------|------------|----------------|----------------|-------------------|
| 1/10 GbE 1/2/4/8 (FC) | SV-SFPP-10GT1-T1-1M | | | 1 | | | |
| | SV-SFPP-10GT1-T1-3M | | | 3 | | | |
| | SV-SFPP-10GT1-T1-5M | | | 5 | | | |
| | SV-SFPP-10GT1-T1-7M | | | 7 | | | |
| | SV-SFPP-10GT1-T1-10M | | | 10 | | | |

Dual Fiber Strands SFP+ Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|-------------------------------|-----------------|--------|------------|---------------|----------------|----------------|-------------------|
| Fiber Channel 1/2/4/8 (FC) | SV-SFPP-8GSR | MM | 850nm | 0.15 | -6.5 to -1 | -11.5 to -1 | 5 |
| | SV-SFPP-8GESR | MM | 1300nm | 2 | -10.6 to 0.5 | -18 to -0.5 | 4.4 |
| | SV-SFPP-8GLR1 | SM | 1310nm | 10 | -8.4 to 0.5 | -15 to 0.5 | 6.6 |
| | SV-SFPP-8GLR2 | SM | 1310nm | 20 | -6 to 0.5 | -14.4 to -1 | 8.4 |
| | SV-SFPP-8GER4 | SM | 1550nm | 40 | 0 to 3 | -15 to 0.5 | 15 |
| | SV-SFPP-8GZR8 | SM | 1550nm | 80 | 0 to 4 | -24 to 0.5 | 24 |
| 1/10 GbE 1/2/4/8 (FC) | SV-SFPP-10GSR | MM | 850nm | 0.3 | -6.5 to -1 | -11.1 to -1 | 1.6 |
| | SV-SFPP-10GESR | MM | 1300nm | 0.22 | -6.5 to -0.5 | -11 to -1 | 1.5 |
| | SV-SFPP-10GLR | SM | 1310nm | 2 | -8.2 to 0.5 | -14.4 to 0.5 | 6.2 |
| | SV-SFPP-10GLR1 | SM | 1310nm | 10 | -8.2 to 0.5 | -14.4 to 0.5 | 6.2 |
| | SV-SFPP-10GLR2 | SM | 1310nm | 20 | -9.5 to -3.5 | -14.4 to 0.5 | 9.4 |
| | SV-SFPP-10GERD4 | SM | 1550nm | 40 | 0 to 4 | -21 to -8 | 21 |
| SV-SFPP-10GERD8 | SM | 1550nm | 80 | 0 to 3 | -24 to -8 | 24 | |

Available with options of Industrial temperature and / or No DDM

- Copper SFP+ Modules
- Dual Fiber Strands SFP+ Modules
- Single Fiber Strand SFP+ Modules
- CWDM Dual Fiber Strands SFP+ Modules
- C and L Band DWDM Dual Fiber Strands SFP+ Modules

Single Fiber Strand SFP+ Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|-----------------------------|-----------------|------|-------------------------|---------------|----------------|----------------|-------------------|
| 1/10 GbE 1/ 2/ 4/ 8 (FC) | SV-SFPP-10GLR11 | SM | 1270 TX 1330 RX | 10 | -8.2 to 0.5 | -14.1 to 0.5 | 5.9 |
| | SV-SFPP-10GLR12 | SM | 1330 TX 1270 RX | 10 | -8.2 to 0.5 | -14.1 to 0.5 | 5.9 |
| | SV-SFPP-10GLR21 | SM | 1270 TX 1330 RX | 20 | -2 to 2 | -14.1 to 0.5 | 12.5 |
| | SV-SFPP-10GLR22 | SM | 1330 TX 1270 RX | 20 | -2 to 2 | -14.1 to 0.5 | 12.5 |
| | SV-SFPP-10GLR41 | SM | 1270 DFB TX/ 1330 RX | 40 | 1 to 5 | -20 to -7 | 19 |
| | SV-SFPP-10GLR42 | SM | 1330 DFB TX/ 1270 RX | 40 | 1 to 5 | -20 to -7 | 19 |
| | SV-SFPP-10GLR51 | SM | 1270 DFB TX 1330 APD RX | 50 | 1 to 5 | -20 to -7 | 24 |
| | SV-SFPP-10GLR52 | SM | 1330 DFB TX 1270 APD RX | 50 | 1 to 5 | -20 to -7 | 24 |

Available with options of Industrial temperature and / or No DDM

CWDM Dual Fiber Strands SFP+ Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|------------------------------|--------------------|------|-----------------|---------------|----------------|----------------|-------------------|
| Fiber Channel | SV-SFPP-8GERD4C## | SM | 1450nm ~ 1610nm | 40 | -1 to 2 | -15.8 to -1 | 14.8 |
| 1/ 2/ 4/ 8 (FC) | SV-SFPP-8GERD8C## | SM | 1450nm ~ 1610nm | 80 | 0 to 3 | -24.5 to -7 | 24.5 |
| 1 / 10GbE 1/ 2/ 4/ 8 (FC) | SV-SFPP-10GERD4C## | SM | 1270nm ~ 1610nm | 40 | -1 to 2 | -14.1 to -1 | 13.1 |
| | SV-SFPP-10GERD8C## | SM | 1450nm ~ 1610nm | 80 | 0 to 3 | -24.5 to -7 | 24.5 |

Available with option of No DDM ## denotes wavelength range from 1270~1610nm.

27 = 1270nm, 29=1290nm, 31=1310nm, 33=1330nm, 35=1350nm, 37=1370nm, 39=1390nm, 41=1410nm, 43=1430nm, 45=1450nm, 47=1470nm, 49=1490nm, 51=1510nm, 53=1530nm, 55=1550nm, 57=1570nm, 59=1590nm, 61=1610nm

C and L Band DWDM Dual Fiber Strands SFP+ Modules

| DateRate | Part Number | Type | Wavelength | Distance (km) | TX Power (dBm) | RX Sens. (dBm) | Fiber Budget (dB) |
|------------------------------|--------------------|------|-----------------|---------------|----------------|----------------|-------------------|
| 1 / 10GbE 1/ 2/ 4/ 8 (FC) | SV-SFPP-10GERD4D## | SM | DWDM Wavelength | 40 | -1 to 3 | -14.1 to -1 | 13.1 |
| | SV-SFPP-10GERD8D## | SM | DWDM Wavelength | 80 | -1 to 3 | -14.1 to -1 | 23 |

denotes DWDM Wavelength Guide on page 25