



Sat-Light Platinum Series

Single Fiber/DWDM/CWDM SFP Module



Features & Benefits

- ❖ Available in single fiber, 20/40Km
- ❖ Available in all 16 channels of the CWDM ITU grid
- ❖ Available in all 80 channels of the DWDM ITU grid
- ❖ Cold start-up wavelength compliance
- ❖ Low power dissipation <1.3W maximum
- ❖ -5°C to +70°C operating case temperature
- ❖ Extended link budget with APD receiver technology
- ❖ RoHS compliant and lead free

Product Description

Global Foxcom's Small Form-Factor Pluggable (SFP) gigabit interface converter is a hot-swappable input/output device that plugs into a gigabit Ethernet port or slot.

The SFP device supports up to 1GB of data rate. It is available in a single fiber kit version and also as a dual fiber in CWDM/DWDM wavelengths for longer distance application.

The SFP is available in 20, 40, 60 and 120Km fiber versions.

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Specifications

Operating Conditions

| Parameter | Symbol | Min | Typical | Max | Unit |
|----------------------------|--------|------|---------|------|------|
| Supply Voltage | Vcc | 3.13 | 3.3 | 3.47 | V |
| Operating Case temperature | Tca | -5 | - | 70 | °C |
| Total Current | Icc | - | - | 375 | mA |
| Module Power Dissipation | Pm | - | 0.8 | 1.4 | W |
| Data Rate Multi-rate | Mra | 100 | 2500 | 2700 | Mb |

Optical Transmitter Specifications

| Parameter | Symbol | Min | Typical | Max | Unit |
|-----------------------------------|-------------|-----|---------|-----|------|
| Optical Transmit Power * | Po | -6 | | 4 | dB |
| Optical Transmit Power (disabled) | PTX_DISABLE | - | | -40 | dB |
| Extinction Ratio | ER | 8.2 | | - | dB |
| Channel Spacing | Δf | - | 100 | - | GH |
| Jitter Generation | TJP-P | - | - | 70 | mUI |
| Spectral Width (20dB) | DL20 | - | 0.1 | 0.3 | nm |
| Side Mode Suppression Ratio | SMSR | 30 | - | - | dB |

* Depends on SFP Version

Electrical Transmitter Specifications

| Parameter | Symbol | Min | Typical | Max | Unit |
|-----------------------|---------|------|---------|---------|------|
| Supply Voltage | Vcctx | 3.13 | 3.3 | 3.47 | V |
| PECL/CML Input | VTXDIF | 500 | - | 1600 | mV |
| Input Rise/Fall | TR / TF | - | - | 160 | ps |
| TxFault_Fault | Vf | 2 | - | Vcc | V |
| TxFault_Normal | Vn | Vee | - | Vee+0.5 | V |
| TX_DISABLE (asserted) | VdH | 2 | - | Vcc | V |
| TX_DISABLE (negated) | VdL | Vee | - | Vee+0.8 | V |

Optical APD Receiver Specifications

| Parameter | Symbol | Min | Typical | Max | Unit |
|------------------------------------|-------------|-----|---------|-----|------|
| Receiver Sensitivity | Rsens-1 | - | -30 | -28 | dB |
| Receiver Sensitivity (OSNR = 20dB) | Rsens-2 | - | - | -24 | dB |
| Maximum Input Power | RX-overload | - | - | -7 | dB |

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| | | | | | |
|-----------------------------|-------------------------------|------|---|-----|----|
| Input Operating Wavelength | λ | 1528 | - | 15 | nm |
| Reflectance | R _{Rx} | - | - | -27 | dB |
| Loss of Signal Asserted | P _A | -40 | - | -33 | dB |
| Loss of Signal –De Asserted | P _D | - | - | -31 | dB |
| Hysteresis | P _A P _D | 0.5 | - | 4 | dB |

Electrical APD Receiver Specifications

| Parameter | Symbol | Min | Typical | Max | Unit |
|---------------------------|---------------------------------|-----------------|---------|----------------------|------|
| Supply Voltage | V _{CCR_X} | 3.13 | 3.3 | 3.47 | V |
| Differential Output Swing | V _{OUT P-P} | 370 | - | 2000 | mV |
| Rise/Fall Time | T _R / T _F | - | - | 170 | ps |
| Loss of Signal –Asserted | V _{OH} | 2 | - | V _{CC} | V |
| Loss of Signal –Negated | V _{OL} | V _{EE} | - | V _{EE} +0.5 | V |

Ordering Information

Single Fiber SFP VERSION

SFP Kit-gig-SF

Consists of a pair of single fiber SFP units, designed to work to 20Km. One fiber transmits at 1310 and the other at 1550nm.

CWDM SFP Version

SFP-YYY-1XXX-1000

XXX specifies CWDM wavelength (see CWDM ITU Chart)

YYY specifies maximum fiber length support (20, 40, 60, 120Km)

DWDM Version

SFP-YYY-CHXX-1000

XX specifies DWDM ITU Channel (see DWDM ITU Chart)

YYY specifies maximum fiber length support (20, 40, 60, 120Km)