

# SV-SFPP-10GT3-T3-XM

SFP+ Active Optical Cable,  
1m;3m;5m;7m;10m;15m Reach



## Features

- Up to 11.1Gbps Data rate per channel
- Maximum link length of 300m links on OM3 multimode fiber
- High Reliability 850nm VCSEL technology
- Electrically hot-pluggable
- Electrical interface compliant to SFF-8431
- Case operating temperature range:0°C to 70°C
- Power dissipation < 1.0W per cable end

## Applications

- 10G Ethernet
- Infiniband QDR
- Fiber channel
- HPC Interconnections

## Ordering Information

| Part number                 | Description  |
|-----------------------------|--|
| <b>SV-SFPP-10GT3-T3-1M</b>  | Starview SFP+ Active Optical Cable module supporting Gigabit Ethernet 1GE/10GE, Fiber Channel 1G/ 2G/ 4G/ 8G, distance up to 1m  |
| <b>SV-SFPP-10GT3-T3-3M</b>  | Starview SFP+ Active Optical Cable module supporting Gigabit Ethernet 1GE/10GE, Fiber Channel 1G/ 2G/ 4G/ 8G, distance up to 3m  |
| <b>SV-SFPP-10GT3-T3-5M</b>  | Starview SFP+ Active Optical Cable module supporting Gigabit Ethernet 1GE/10GE, Fiber Channel 1G/ 2G/ 4G/ 8G, distance up to 5m  |
| <b>SV-SFPP-10GT3-T3-7M</b>  | Starview SFP+ Active Optical Cable module supporting Gigabit Ethernet 1GE/10GE, Fiber Channel 1G/ 2G/ 4G/ 8G, distance up to 7m  |
| <b>SV-SFPP-10GT3-T3-10M</b> | Starview SFP+ Active Optical Cable module supporting Gigabit Ethernet 1GE/10GE, Fiber Channel 1G/ 2G/ 4G/ 8G, distance up to 10m |
| <b>SV-SFPP-10GT3-T3-15M</b> | Starview SFP+ Active Optical Cable module supporting Gigabit Ethernet 1GE/10GE, Fiber Channel 1G/ 2G/ 4G/ 8G, distance up to 15m |

## Absolute Maximum Ratings

| Parameter            | Symbol | Min.    | Typ. | Max.    | Unit |
|----------------------|--------|---------|------|---------|------|
| Storage Temperature  | Ts     | -40     | -    | 85      | °C   |
| Relative Humidity    | RH     | 5       | -    | 95      | %    |
| Power Supply Voltage | VCC    | -0.3    | -    | 4       | V    |
| Signal Input Voltage |        | Vcc-0.3 | -    | Vcc+0.3 | V    |

## Recommended Operating Conditions

| Parameter                  | Symbol | Min. | Typ.    | Max. | Unit | Note             |
|----------------------------|--------|------|---------|------|------|------------------|
| Case Operating Temperature | Tcase  | 0    | -       | 70   | °C   | Without air flow |
| Power Supply Voltage       | VCC    | 3.14 | 3.3     | 3.46 | V    |                  |
| Power Supply Current       | ICC    | -    |         | 300  | mA   | per cable end    |
| Data Rate                  | BR     |      | 10.3125 |      | Gbps |                  |

## General Product Characteristics

| Parameter                         | Symbol   | Min. | Typ.  |
|-----------------------------------|--|------|---|
| Module Form Factor                | SFP+   |      |   |
| Maximum Data Rate                 | 11.1   |      | Gb/s  |
| Standard Cable Lengths            | 3, 5, 7, 10, 50, 100   |      | meters  |
|                                   |  |      | Other lengths may be available upon request (<= 300m) |
| Protocols Supported               | Typical applications include Infiniband, Fibre Channel, 10G Ethernet |      |   |
| Electrical Interface and Pin-out  | 20-pin edge connector  |      | Pin-out as defined by the SFP+ MSA                    |
| Standard Optical Cable Type       | Multimode ribbon fiber cable assembly                                |      |   |
| Maximum Power Consumption per End | 1.0  |      | W per cable end                                       |
| Management Interface              | Serial, I2C-based, 400 kHz maximum frequency                         |      | As defined by the SFP+ MSA                            |

## Electrical Characteristics

| Parameter                            | Symbol              | Min. | Typ. | Max. | Unit | Note |
|--------------------------------------|---------------------|------|------|------|------|------|
| Supply Voltage                       | VccT,VccR           | 3.14 | 3.3  | 3.46 | V    |      |
| Supply Current                       | Icc                 |      |      | 300  | mA   |      |
| <b>Transmitter</b>                   |                     |      |      |      |      |      |
| Differential data input swing        | V <sub>in,pp</sub>  | 180  |      | 1000 | mV   | 1    |
| Single ended input voltage tolerance | V <sub>inT</sub>    | -0.3 |      | 4.0  | v    |      |
| <b>Receiver</b>                      |                     |      |      |      |      |      |
| Differential data output swing       | V <sub>out,pp</sub> | 300  |      | 850  | mV   | 2    |
| Single-ended output voltage          |                     | -0.3 |      | 4.0  | v    |      |

Note(1): AC coupled internally. Self-biasing 100Ω differential input.

Note(2): AC coupled with 100Ω differential output impedance.