

Datasheet

Copper Ethernet SFP

SFP-SW10/100-R



Highlights

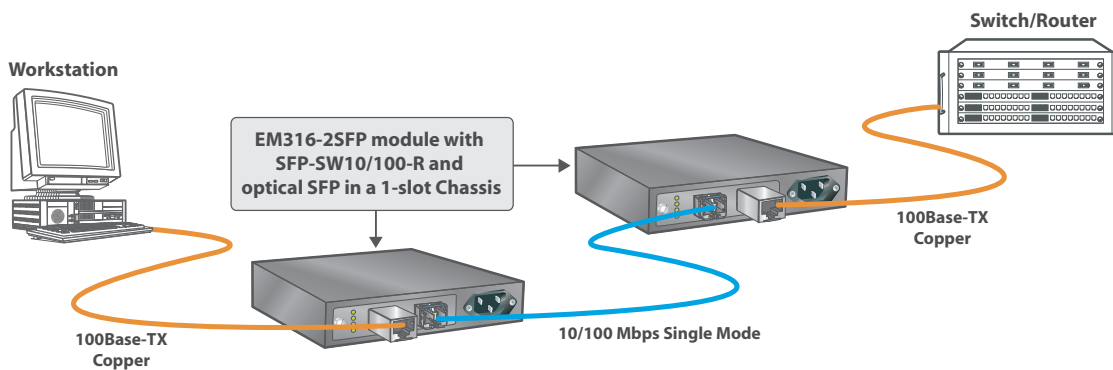
- SFP-SW10/100-R
 - 10/100Base-TX to 100-FX (system)
 - Auto-negotiation
 - Speed and duplex matching
- MDI/MDI-X automatic detection
- Plug-and-play functionality
- LOS support
- Hot-swap support
- Transmitter always on (no LIN support)
- MSA compliance
- Complete MRV SFP compatibility
- Fully metallic enclosure for low EMI

Overview

MRV offers an Ethernet SFP for copper media applications that provides unique 10/100 Mbps Ethernet solutions. It has auto-negotiation with speed and duplex matching as well as MDI/MDI-X auto-detection. It supports transport of packets up to 1,600 bytes.

Application: Fast Ethernet Copper-to-Fiber Conversion

Converting from copper to fiber and back again, SFP-SW10/100-R and optical SFPs are used as interfaces in data rate independent Fiber Driver SFP-to-SFP pluggable media modules (EM316-2SFP). The fiber link operates at Fast Ethernet speed. The SFP-SW10/100-R matches the speed and duplex mode of each edge device, allowing them operate at different speeds and duplex modes.



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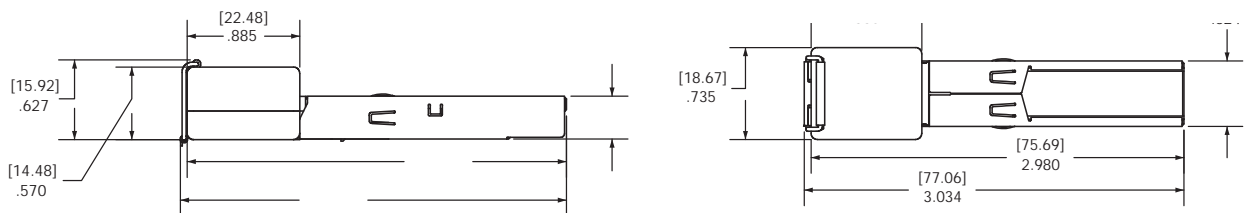
Specifications

| | |
|--|---|
| Operating Temperature Range | 0° C to 70°C (32°F to 158°F) |
| Storage Temperature | -40°C to 85°C (-40°F to 185°F) |
| Relative Humidity | 85% maximum, non-condensing |
| Power | 1.5 W |
| Connector | RJ-45 |
| Cable Type | CAT-5 |
| Maximum Cable Length | 100 meters |
| Ethernet Standard | 10Base-TX, 100Base-TX |
| Supports Speed Auto-Negotiation | Yes |
| Supports Duplex Auto-Negotiation | Yes |
| Supports Auto MDI/MDI-X Detect | Yes |
| Match Translates Between Edge Devices | Yes |
| Used with Layer 0/1 Devices (E.G. Repeaters, Converters and WDM transponders) | Yes |
| Used with Layer 2 Devices (E.G. Switches and Routers) | Yes |
| Link Indicator on Rx_Los Pin | Yes |
| 1000Base-X Auto-Negotiation Enabled by Default | No |
| Maximum Packet Size | 1600 Bytes |
| Regulatory Compliance | FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity; RoHS Directive; China RoHS; WEEE Directive: Wheelie Bin Mark |

Serial Bus Timing Requirements

| Parameter | Minimum | Maximum | Units |
|-----------------------------|---------|---------|-------|
| I ² C Clock Rate | 0 | 100,000 | Hz |

Outline Drawing





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Ordering Information

| Model | Function | Voltage (V) | Protocol | Max. Data Rate (Mbps) | Connectors | Distance Range (m) |
|----------------|---|-------------|-------------------------|-----------------------|------------|--------------------|
| SFP-SW10/100-R | SFP 10/100Base-TX autonegotiation, speed/duplex matching. | 3.3 | Ethernet, Fast Ethernet | 125 | RJ-45 | 0 - 100 |

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