# FlexPoint

## FlexPoint™ 10/100
### 10/100 UTP to Fast Ethernet Fiber Media Converter

The FlexPoint 10/100 is a modular 10BASE-T or 100BASE-TX UTP to 100BASE-FX fiber media converter that provides reliable and cost-effective network connectivity and fiber extension.

The FlexPoint 10/100 features a 10/100 auto-sensing UTP port that adjusts to the highest level of performance supported by the attached device. An override switch provides manual control over the 10/100 operation of the UTP port and the Half/Full-Duplex operation of both the fiber and UTP ports.

Using its store-and-forward technology with 1-Mbyte buffer memory, the FlexPoint 10/100 checks all packets and discards illegal or corrupted packets providing fragment-free packet forwarding.

It features a crossover switch facilitates connectivity to network equipment such as hubs, switches and workstations.

The fiber port operates at 1310nm or 1550nm and features SC, ST, LC or MT-RJ connectors. Multimode fiber models support distances of up to 5km, and single-mode fiber models support distances of up to 120km.

Manual switch settings and LED indicators with on-the-label descriptions enable easy configuration to legacy devices or specific network requirements. The LEDs report the availability of power, port activity and link status, speed and duplex modes.

FlexPoint modules can be mounted utilizing optional wall-mounting hardware or with DIN-rail mounting brackets. They can also be rack-mounted in a 5-Module shelf or in a high-density 14-Module, power-redundant Powered Chassis.

FlexPoint modules installed in the 5-Module shelf or used as standalone devices can be powered by an external AC to DC power adapter, or through the 5VDC chassis connector. Standalone modules can also be powered by attaching an external DC power supply (18-60VDC). When used in the 14-Module power-redundant Powered Chassis with any combination of AC and DC power supplies, the installed modules are powered via the 5VDC chassis connector.

The wide variety of FlexPoint mounting and power options provide flexible upgrade paths as network requirements change and grow.

Simple, dependable and flexible. For over a decade, FlexPoint media converters have been providing reliable fiber connectivity in Enterprise and mission-critical networks around the world.



- The FlexPoint 10/100 is a 10BASE-T or 100BASE-TX to 100BASE-FX fiber media converter

- The UTP port supports auto or manual negotiation

- Extends network distances up to 120km

- Supports most network interfaces with a wide variety of cable and connector types

- Labeled status LEDs and switches for quick and easy installation

- Features a crossover switch for connection to hubs, switches or workstations

- Wall-mount or rack-mount on a 5-Module shelf or in a 14-Module power-redundant FlexPoint Powered Chassis

- Completely software independent with no installation of drivers required

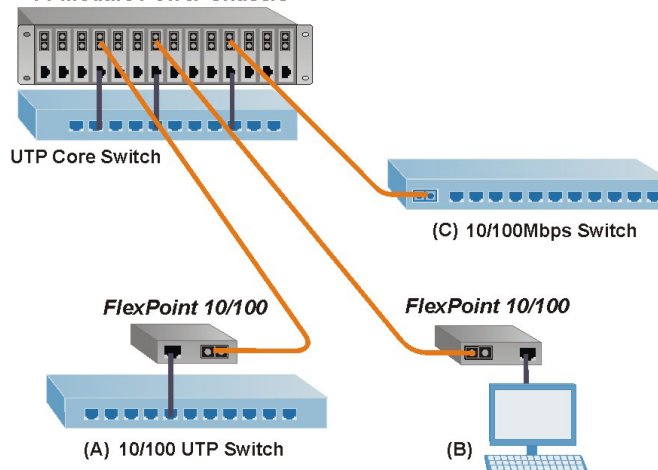- Peace-of-mind reliability backed by a lifetime warranty and free 24/7 technical support

**Omnitron Systems Technology, Inc.**

# SPECIFICATIONS

| Model Type | 10/100 |
|---|---|
| **Protocols** | IEEE 802.3, 10BASE-T, 100BASE-TX, 100BASE-FX |
| **UTP Cable** | EIA/TIA 568A/B, Category 5 and higher |
| **Fiber Cables** | Multimode: 50/125, 62.5/125, 100/140µm<br>Single-mode: 9/125µm |
| **UTP Connectors** | RJ-45 |
| **Fiber Connectors** | SC, ST, MT-RJ, LC |
| **Switches** | User Selectable UTP Crossover, AN/Man,<br>10/100UTP, UTP FDX/HDX, Fiber FDX/HDX |
| **LED Displays** | **Power:** Yellow LED = Power Applied<br>**UTP AN:** Green LED = Auto Negotiation Enabled<br>**UTP Duplex:** Green LED<br>On: Set to Full-Duplex<br>Off: Set to Half-Duplex<br>**UTP Link/Receive:** Green LED = Device Present<br>**UTP 10Mbps:** Yellow LED = Data Received<br>**UTP 100Mbps:** Green LED = Device Present<br>**Fiber Duplex Mode:** Green LED = Device Present<br>On: Set to Full-Duplex<br>Off: Set to Half-Duplex<br>**Fiber Link/Receive:** Green LED = Device Present |
| **Dimensions** | W: 3.0" x D: 4.0" x  H: 1.0" |
| **Weight** | 6 oz. (without power adapter) |
| **Compliance** | UL, CE, FCC Class A |
| **Power Requirements** | | **Barrel Connector** | **Molex Connector** |

| Power Requirements | | Barrel Connector | Molex Connector |
|---|---|---|---|
| | **NominalVoltage:** | 9VDC | 5VDC |
| | **Voltage Range:** | 6.0 to 15.0VDC | 4.75 to 5.25VDC |
| | **Power Nominal:** | 0.5A @ 9VDC | 0.8A @ 5VDC |
| | **Maximum Power:** | 1A @ 9VDC | 1.0A @ 5VDC |

| **Temperature** | 0 to 50°C |
|---|---|
| **Humidity** | 5 to 95% (non-condensing) |
| **Altitude** | -100m to 4000m |
| **MTBF (Hours)** | Module without Power Adapter:  1,100,000<br>Module with Power Adapter **-1**:  250,000<br>Module with Power Adapter **-2**:  100,000 |

# APPLICATION EXAMPLES

In this enterprise campus application example, FlexPoint 10/100 media converters are installed in a 14-Module Redundant Power chassis for high-density fiber distribution from UTP switch equipment at the Network Core.  A UTP workgroup switch (A) is connected via fiber with a standalone FlexPoint 10/100 media converter.  Another FlexPoint 10/100 converts the fiber to UTP in a fiber-to-desktop application (B).  An Ethernet switch (C) is connected directly via fiber to the FlexPoint module at the Network Core.  In all cases, multimode or single-mode fiber can be used, and fiber links can be extended up to 120km using single-mode fiber.

**FlexPoint 10/100s installed in 14-Module Power Chassis**

UTP Core Switch

(C) 10/100Mbps Switch

**FlexPoint 10/100**

**FlexPoint 10/100**

(A)  10/100 UTP Switch

(B)

# ORDERING INFORMATION

| Fiber Type | Distance | Connector Type | | | | Tx / Rx Wavelength (nm) | Min. Tx Power (dBm) | Max. Tx Power (dBm) | Min. Rx Sense (dBm) | Max. Rx Power (dBm) | Optical Power Budget |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **ST** | **SC** | **MT-RJ** | **LC** | | | | | | |
| MM | 5km | **4342-x** | **4340-x** | **4346-x** | **4355-1x** | 1310 | -24 | -14 | -31 | -14 | 7 |
| SM | 30km | **4343-x** | **4341-x** | **4348-x** | **4355-2x** | 1310 | -15 | -8 | -31 | -8 | 16 |
| SM | 60km | - | **4344-x** | **4345-x** | **4355-3x** | 1310 | -5 | 0 | -31 | -3* | 26 |
| SM | 85km | - | **4347-x** | - | - | 1550 | -7 | 0 | -28 | -3* | 21 |
| SM | 120km | - | **4349-x** | - | - | 1550 | -5 | 0 | -31 | -3* | 26 |
| SM/SF | 20km | - | **4357-1x** | - | - | 1310/1550 | -15 | -5 | -30 | -3 | 15 |
| SM/SF | 20km | - | **4357-2x** | - | - | 1550/1310 | -15 | -5 | -30 | -3 | 15 |

For wide temperature (-40 to 60°C), add a "W" to the end of the model number.  Consult factory for extended temperature (-40 to +75°C) models.
**Power Adapter Kits (-x):  -0** = No power adapter included **-1** = 110-120 VAC/60 Hz (US plug),  **-2** = 100-240 VAC/50-60 Hz (IEC plug, no power cord).
For other power and fiber configurations, contact the factory.
*When using these models in pairs, minimum attenuation of 3dB is required.

**OST** Omnitron Systems Technology, Inc.