

Basic Connections! Media Conversion Family



Illustrated: Basic Connection! Media Conversion Family

Basic Connections! is a family of very economical, simple to deploy, no-frills Media Converters that provide basic Gigabit Ethernet and Fast Ethernet connections. While some of the rich array of features found on standard Canary models may not be present, they provide solid performance, value, and utility. Each group has models that support either UTP-to-Fiber or Fiber-to-Fiber conversion, providing very economical links between twisted-pair segments, low-cost multi-mode fiber optic segments, and single-mode Fiber segments. They are ideal for data intensive backbones in the enterprise or across the campus where cost is paramount and/or where major structural changes to the network architecture are expected in a relatively short time.

Basic connections ... where cost is paramount.

**Copper-to-Fiber
Converters**
Gigabit Ethernet
multi-mode &
single-mode
1000BASE-T/SX/LX
series

Fast Ethernet
multi-mode &
single-mode
100BASE-TX/FX
series

**Fiber-to-Fiber
Converters**
Gigabit Ethernet
Multi-mode to
Single-mode
1000BASE-SX/LX

Fast Ethernet
Multi-mode to
Single-mode
100BASE-FX/FX

**Economic basic
Gigabit and
Fast Ethernet
connections.**



Product Specifications

Power Supply:

- External
- Input: 120 VAC, 60 Hz
- Output: 12 VDC 0.8 Amp

Environmental:

- Operating Temp.: 0 to 55°C
- Storage Temp.: -10 to 70°C
- Relative Humidity: 5% to 95% non-condensing

Mechanical:

- Height: 0.9" (2.3 cm)
- Length: 4.3" (10.9 cm)
- Width: 2.9" (7.4 cm)
- Ship Weight: 2.0 lb (0.9 Kg)
- Single Unit: 1.2 lb (0.5 Kg)

Regulatory:

- Designed in compliance with FCC Class A- Part 15, CE, UL, CSA & TUV standards
- IEEE 802.3z, A/B; 1000BASE-T/SX/LX/ZX
- Class 1 lasers conform to US 21CFR10, EN 60825-1, UL 1950 and IEC-825

Warranty:

- Three (3) Years, parts and labor

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Basic Media Conversion Connections

The pages that follow provide ordering information for Canary's 'Basic Connections' family of Media Conversion products:

- **Gigabit Ethernet Copper-to-Fiber Converters**
BC-GTXX series
- **Gigabit Ethernet Fiber-to-Fiber Converters**
BC-GSXLX1
- **Fast Ethernet Copper-to-Fiber Converters**
BC-TFXX series



Canary Communications is an ISO 9001 : 2000 registered company.



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Basic Connections! Media Conversion Family

BC-GTXX1 – Gigabit Ethernet Copper-to-Fiber Converters

BC-GSXLX1 – Gigabit Ethernet Fiber-to-Fiber Converters

BC-TFXX – Fast Ethernet Copper-to-Fiber Converters



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Gigabit Ethernet Copper-to-Fiber Converters

- 1000BASE-T Autonegotiation for Full-duplex and Half-duplex operation with Flow-Control and;
 - Switch selectable, Fiber-Port Autonegotiation for common, end-to-end link awareness and Flow-Control, or for blind connection to Gigabit fiber ports on older switches
 - Internal Auto-sensing, MDI / MDI-X crossover switch for Network Interface Card or Switch connections
 - Transparent to Flow-Control commands such as PAUSE
 - A full array of status / diagnostic LEDs
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The *Basic Connections!* family of Gigabit Ethernet copper-to-fiber converters combine existing 100 meter Category-5(E) UTP and Fiber optic segments to deliver Gigabit data across the network. They provide very economical connections in the enterprise or campus, and can be used to take advantage of low-cost Gigabit capable switches.

Gigabit Ethernet Fiber-to-Fiber Converters

- Simple plug and go installation
 - Transparent to Flow-Control commands such as PAUSE
 - A full array of status / diagnostic LEDs
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Basic Connections! Gigabit Ethernet Fiber-to-Fiber converters provide very economical conversion between low-cost multi-mode fiber optic segments and single-mode Fiber segments. They are ideal for data intensive backbones in the enterprise or across the campus where cost is paramount.

Standard Gigabit multi-mode ports provide minimum transmission distances of 220+ meters over 62.5/125 $\eta\mu\text{m}$ fiber or 500+ meters over 50.0/125 $\eta\mu\text{m}$ fiber. Standard Gigabit models with single-mode ports provide a transmission distance of 10 kilometers over 9.0/125 $\eta\mu\text{m}$ single-mode fiber.



Basic Connections! Media Conversion Family

BC-GTXX1 – Gigabit Ethernet Copper-to-Fiber Converters

BC-GSXLX1 – Gigabit Ethernet Fiber-to-Fiber Converters

BC-TFXX – Fast Ethernet Copper-to-Fiber Converters

Fast Ethernet Copper-to-Fiber Converters

Basic Connections! Fast Ethernet UTP-to-Fiber converters interconnect twisted-pair and fiber optic segments to extend Fast Ethernet links. They are ideal for connecting user desktops with low-cost work-group switches or for small office/home office switch-to-switch links.

Standard multi-mode converters provide transmission distances of 2000 meters over 62.5/125 μ m fiber.

Standard single-mode models provide transmission distances ranging from 20 to 40 kilometers over 9.0 μ m single-mode fiber.

- Switch for Hard-Setting Full-Duplex or 100BASE-TX Auto-negotiation for Full and Half-duplex operation
- Push-button MDI / MDI-X crossover switch for proper Network Interface Card or Switch connections
- Optional forty kilometer rated Fiber connectors
- A full array of diagnostic LEDs

Ordering Information

| Model Numbers | Media Types | Optical Specifications | | | | | | | | |
|---|-------------|------------------------|-------------|----------------|-----------------|-----------------|----------------|----------------|------------------------|-------------------|
| | | Min. Tx PWR | Max. Tx PWR | Rx Sensitivity | Min. PWR Budget | Max. PWR Budget | Max. Input PWR | Connector Type | Wavelengths (μ m) | Transmit Distance |
| <i>Specifications in Blue are for multi-mode fiber connectors, those in Black are for single-mode fiber connectors</i> | | | | | | | | | | |
| <i>Gigabit Ethernet Copper-to-Fiber Converters (1000BASE-T-SX/LX)</i> | | | | | | | | | | |
| BC-GTSX1 | UTP / MM | -9.5 dBm | -4.0 dBm | -17.0 dBm | 7.5 dB | 13.0 dB | 0.0 dBm | SC | 850 _m | 220/550 m |
| BC-GTLX1 | UTP / SM | -10.0 dBm | -3.0 dBm | -20.0 dBm | 10.0 dB | 17.0 dB | -3.0 dBm | SC | 1310 _m | 10 Km |
| <i>Gigabit Ethernet Fiber-to-Fiber Converters (1000BASE-SX-LX)</i> | | | | | | | | | | |
| BC-GSXLX1 | MM / SM | -10.0 dBm | -3.0 dBm | -20.0 dBm | 10.0 dB | 17.0 dB | -3.0 dBm | SC/SC | 1310 _m | 550m / 10 Km |
| <i>Fast Ethernet Copper-to-Fiber Converters (100BASE-T/FX)</i> | | | | | | | | | | |
| BC-TFM1 | UTP / MM | -20.0 dBm | -14.0 dBm | -31.0 dBm | 11.0 dB | 17.0 dB | -8.0 dBm | SC | 1310 _m | 2000 m |
| BC-TFM2 | UTP / MM | -20.0 dBm | -14.0 dBm | -31.0 dBm | 11.0 dB | 17.0 dB | -8.0 dBm | ST | 1310 _m | 2000 m |
| BC-TFS1 | UTP / SM | -15.0 Bm | -8.0 dBm | -34.0 dBm | 19.0 dB | 26.0 dB | -7.0 dBm | SC | 1310 _m | 20 Km |
| BC-TFS2 | UTP / SM | -15.0 dBm | -8.0 dBm | -34.0 dBm | 19.0 dB | 26.0 dB | -7.0 dBm | ST | 1310 _m | 20 Km |
| BC-TFS1-L4 | UTP / SM | -5.0 dBm | 0.0 dBm | -35.0 dBm | 30.0 dB | 35.0 dB | 0.0 dBm | SC | 1310 _m | 40 Km |
| NOTE: BASIC CONNECTIONS! standalone converters are compatible with card modules for Canary's CCM-1600 and CCN-2000 / CCN-0400 Chassis models. Please refer to the CCM-1600 and CCN-20000 / CCN-0400 Data Sheets s for more information. | | | | | | | | | | |

