

# Canary Uni-Directional Data Transmission

Featuring:

- **One-Way Fiber Port Transmission** ▪
- **Gigabit Auto-Cross RJ-45 Port with Auto-Negotiation** ▪
- **Special Order CWDM Transceivers for Multiple Channel Transport** ▪

Canary **GFT-10XXD** and **GFT-10XXDR** Uni-Directional, Gigabit Ethernet Converters are designed for one-way data transmission across a single Fiber strand. Standard duplex SC Fiber connectors are utilized with their Full-Duplex function disabled.

Optimized for environments where two-way communications is undesirable, Canary *Uni-Directional*, Converters are unmanaged and implement factory design features that are irreversible after production. No on-board internal switches or jumpers are usable to restore bi-directional operation either before or after installation. Simply changing Fiber optic connectors will not re-enable bi-directional operation.

The Gigabit Ethernet RJ-45 port is able to *Auto-negotiate* twisted-pair connections with other network devices. Although a nominally Full-Duplex link may be established at the UTP interface, it never physically transports full-duplex traffic. Fiber negotiation is unavailable.

Single-mode versions, (**GFT-1031D** & **GFT-1031DR**) provide one-way transmission over a single-mode Fiber. Multi-channel and parallel transmission over a single Fiber strand is supported via dedicated CWDM wavelengths.

Making optimal use of state-of-the-art integrated circuits and surface-mount technology, Canary has created exceptionally reliable, tamper-resistant, low-cost single-purpose converters.

## GFT-1055D & GFT-1055DR Uni-Directional Gigabit Converters



### ▪ Plug-and-Go, UTP and Fiber Connections:

Configure your application to run via UDP then connect the Transmit (Tx) port of the GFT-1055D to the Receive (Rx) port of the GFT-1055DR using a single Fiber strand; then connect the RJ-45 port of each device with their associated host for secure, one-way data transmission

### ▪ Flexible, Secure Network/Host Configurations:

**Low to High:** Forward information to a Higher Security environment while blocking the un-authorized release of sensitive data in the reverse direction;

**High to Low:** Restrict authorized user access. Maintain System and Data Security, Integrity and Availability while allowing the limited export of selective information to lower security-level destinations.

### ▪ Unparalleled Network Integration and Versatility:

Combine multiple, one-way data channels into *virtual trunks* for parallel transport over a single Fiber strand using CWDM (Coarse Wavelength Division Multiplexing) transceivers paired with optical multiplexers.

Alternatively, create CWDM wavelength based, optical VLANs. Simply make additional Copper and Fiber connections to increase the number of active, one-way Links – *Easy, Secure Expansion!*

**Canary Communications**

## Main Features:

### Standards:

- IEEE: 802.3z, IEEE 802.ab

### Interfaces:

- One 1000BASE-SX/LX/ZX Fiber Port
- One 1000BASE-T RJ-45 Port

### Networking:

- 1000 BASE-T / RJ-45 Port : Auto-Cross & Auto-negotiation
- Fiber port:
  - GFT-1055D / GFT-1031D: Fiber Transmit (Tx) only
  - GFT-1055DR / GFT-1031DR: Fiber Receive (Rx) only
- Fiber Connector Types: 55 = m/m, SC; 31 = s/m, SC

### Management:

- No management access to internal functions

### Power:

- 100 ~ 240 VAC Auto-ranging Power input
- +5 VDC Power Output
- Consumption: 4 Watts (Nominal), 5 Watts (Maximum)

### Mechanical & Environmental:

- Desktop and 19 inch Shelf mounting
- DIN Rail Attachment Clips: Special Order
- Operating Temperature: 0°C~50°C



## Specifications:

**Standards:** IEEE 802.3u 1000BASE-T/SX/LX/ZX  
 IEEE 802.1q VLAN Compatible (One-way)  
 IEEE 802.3x Flow Control Not Supported

**Ports:** [1] 1000BASE-SX/LX  
 [1] 1000BASE-T (RJ-45)

**Max Distances:** Fiber Optic: Up to 70 km (s/m)  
 RJ-45 : 100 meters

**Power:** Input: 100 ~ 240 VAC,  
**Temperature:** Operating: 0° C to 50° C  
 Storage: -20° C to 70° C

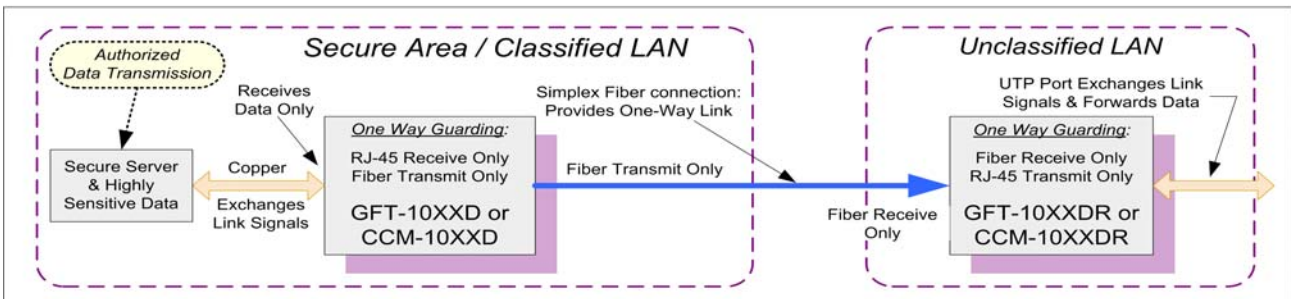
**Humidity:** Operating: 10% to 80% RH  
 Storage: 5% to 90% RH

**Emissions:** FCC Part 15 of Class A & CE Approved

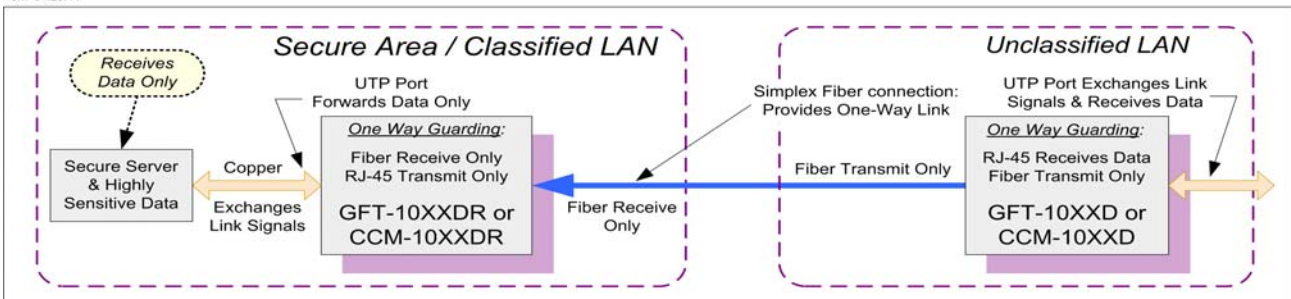
**Safety:** EN 60950, US 21 CFR (J) & EN 60825-1

**Dimensions:** 5.75 in. X 2.85 in. X 1.00 in. (D x W x H)  
 [14.61 x 7.24 x 2.54 cm] (D x W x H)

**Weight:** 2.6 lb. (1.2 Kg) (shipping wt.)



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For more information, please visit us at:  
[www.canarycom.com](http://www.canarycom.com)  
[info@canarycom.com](mailto:info@canarycom.com)

The Canary Communications QMS  
 is Certified to ISO 9001:2015

