

New! Canary Uni-Directional Data Security Diodes

Featuring:

- **One-Way, Two-Channel Data Transmission** ▪ **Unauthorized Transmissions Blocked** ▪
 - **RJ-45 Auto-Negotiation and Auto-Cross for Simple Host Connections** ▪
 - **"We Deliver Increased Confidence and Peace of Mind to the Customer!"** ▪

Place Canary *Uni-Directional*, Data Security Diodes in environments where two-way communications introduces the risk high-value servers and their sensitive data are subject to purposeful, malicious attack or inadvertent corruption. The resulting denial-of-service, loss of critical data, or its non-availability, can be disruptive to organizations and their mission-critical activities.

Data Security Diodes provide data loss protection in the event that malware or hidden executables escape detection and penetrate commonly used network defenses.

Application 1: Twin Input/output Data Security Diodes, forward information originating from two *un-secured* open sources; to a pair of restricted, High-Security destinations via two Fiber-optic channels. They simultaneously partition each data path to completely block sensitive data from being transmitted in the reverse direction.

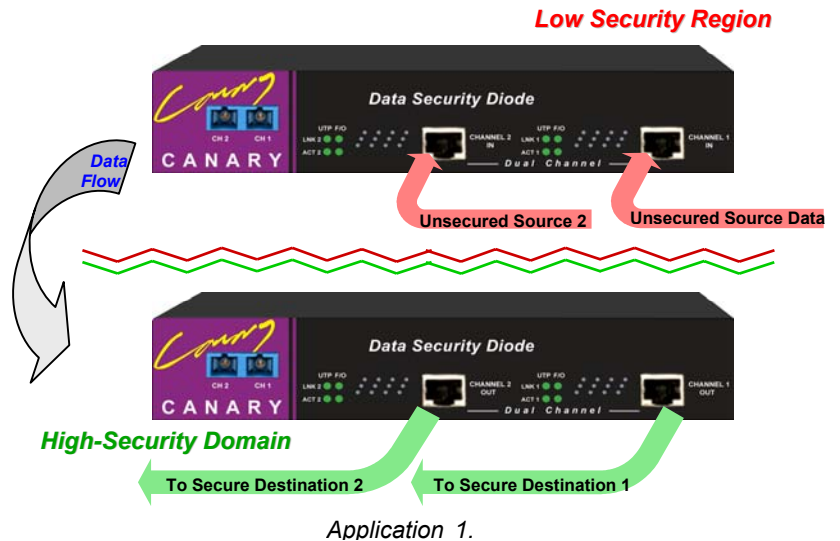
Application 2: Position a set of Data Security Diodes to *selectively forward* authorized data originating from trusted High-Security sources to pairs of weakly protected, *insecure* destinations.

Security Diodes partition their data paths to *shield* secure source(s) from hidden viruses, Trojans, malicious programs or other intrusion attempts and prevent the corruption or unintended release of critical data, or its loss and non-availability.

RJ-45 ports employ *Auto-cross* and *Auto-negotiation* on twisted pair links. Note: even when nominally Full-Duplex, UTP links are established at Data Diode/Host interfaces, they never physically transmit bi-directional, traffic. Full-Duplex data handling functions including Flow-control are completely disabled and no internal or external means are available to restore bi-directional capability.

As another defensive layer for your critical data, Canary Data Security Diodes "*Deliver increased confidence and peace of mind!*"

CT-20TD/DR & GT-10XTD/DR Twin Channel Data Security Diodes



▪ Plug-and-Go Connections:

Configure your applications to run via UDP. Connect a *CT-20TD* or *GT-10XTD* transmit-only *Data Security Diode* to a pair of *un-secure* devices; then link the transmit *Diode* to a *CT-20DR* or *GT-10XDR* Receive-only *Security Diode* using a pair of Fiber cables. Next, connect the receive-only *Security Diode* to secure destination Hosts for safe, *parallel*, one-way data transmissions. (*Application 1*). Reverse the configuration for *Application 2*.

▪ 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.

▪ Hardwired Immunity from External Software threats:

Canary *Data Security Diodes* execute their key functions in hardware. With tamper-resistant cases, there is no vulnerable, software, firmware, memory or buffers that can be exploited to attack and surreptitiously alter or disable Uni-directional operation.

Using UDP or similar protocol over a point-to-point link eliminates the need for normal transmission acknowledgments.

Control physical access to your Canary Data Security Diodes and safely deliver critical data where needed – *Easy, Secure, Information Availability!*

Canary Communications

Main Features:

Interfaces:

- CT-20TDn: (two) 100BASE-TX (RJ-45), **Tx** (two) 100BASE-FX (SC/ST) *
- CT-20DRn: (two) 100BASE-TX (RJ-45), **Rx** (2) 100BASE-FX (SC/ST) *
[n = 1 ~ SC-type Fiber connectors & n = 2 ~ ST-type connectors]
- CT-20TDnS ~ Single-mode (s/m) version of Transmit-only (**Tx**) model *
- CT-20DRnS ~ Single-mode (s/m) version of Receive-only (**Rx**) model *
- GT-1055TD: (2) RJ-45 (1000BASE-T), **Tx** (2) 1000Mb m/m (SX-SC) *
- GT-1055DR: (2) RJ-45 (1000BASE-T), **Rx** (2) 1000Mb m/m (SX-SC) *
- GT-1031TD: ~ Single-mode (LX) version of Transmit-only (**Tx**) model *
- GT-1031DR: ~ Single-mode (LX) version of Receive-only (**Rx**) model *
[X = 55 ~ multi-mode, SC-type and X = 31 ~ single-mode, SC-type]

Following models utilize *Multiplexed, 2-channel inter-diode links* (via Single-Fiber cable) between *Transmit-only* and *Receive-only* units ^

- CT-20TDMS: Same as TD1S but (2) Multiplexed s/m SC on (1) Fiber ^
- CT-20DRMS: Receive-only – Same Interfaces as DRnS (n = 1 ~ SC) ^
- GT-1031TDM: Same as 1031TD but (2) Multiplexed s/m on (1) Fiber ^
- GT-1031DRM: Receive-only – Same Interfaces ^

Networking:

- 100BASE-TX & 1000BASE-T: Auto-negotiation and Auto-crossover to establish Links with source & destination equipment. Links may be automatically configured as Full-duplex, however Full-duplex traffic is not transported or forwarded bi-directionally.

* NOTE: 100 Mbps & 1000 Mbps Ethernet *Links* are without bi-directional TCP acknowledgments but optionally with UDP (application) Destination IP Address and Port Number *

Management:

- No management reporting or access to internal functions
- No provision for error handling/reporting

Mechanical & Environmental:

- Inside, Desktop locations or 19" rack-enclosures
- A pair of units can be mounted side-by-side on a standard 19"-wide shelf (available from Canary)

Please contact Canary for technical details on additional models.



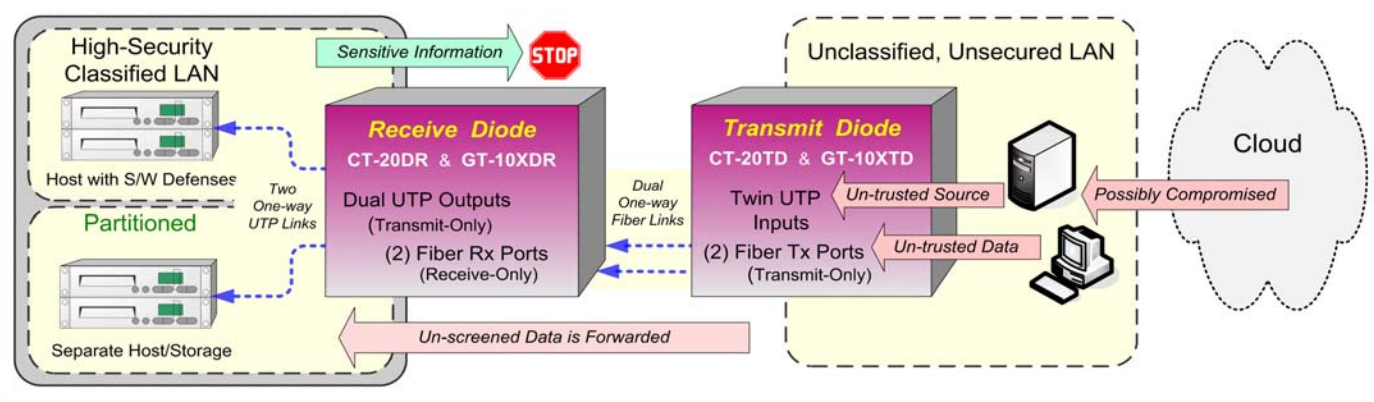
Pending



Specifications:

Standards:	IEEE 802.3u	100BASE-TX, 100BASE-FX *
	IEEE 802.3ab,z	1000BASE-T, 1000BASE-SX/LX *
	IEEE 802.1d	Spanning Tree: None
	IEEE 802.1q	VLAN: Limited Functionality
	IEEE 802.3x	Flow Control Not Supported
Throughput:	100 Mbps (One-way transmission Max.)	
	1000 Mbps (One-way transmission Max.)	* (See Note – above/right column) *
Maximum Distances:	RJ-45/UTP: 100 meters	
	Fiber Optic: 100 Mb: 2 Km; 20, 40, 60 Km	
	1000 Mb: 500 m, 10, 20, 30, 60 Km	

Power:	100 ~ 240 VAC Auto-ranging Power input; and +5 VDC Power Output
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 B & CE: Pending
Safety:	US 21 CFR (J) & EN 60825-1 standards and UL 1950 applications, EN 60950: Pending
Dimensions:	5.21 in. x 8.43 in. x 1.64 in. (D x W x H) [12.7 cm x 20.3 cm x 4.4 cm] (D x W x H)
Weight:	5.5 lb. (2.5 Kg) (Shipping Wt.)



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Preliminary Specifications

For more information please visit us at:
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Canary Communications is an
 ISO 9001 : 2008 Registered Company

