

New! Canary Uni-Directional Data Security Diodes

Featuring:

- **One-Way, Redundant 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, bi-directional communications, expose secure servers and their sensitive data to the risk of purposeful, malicious attack or inadvertent corruption. *Uni-Directional* Data Security Diodes provide additional data loss protection in the event that malware or hidden executables escape detection and penetrate commonly used network defenses.

Application 1: Data Security Diodes with Redundant Transmission, forward information originating from a single *un-secured* open source; to a pair of restricted, High-Security destinations using two Fiber optic (parallel) channels. They simultaneously partition each data path to completely block sensitive data from being transmitted in the reverse direction.

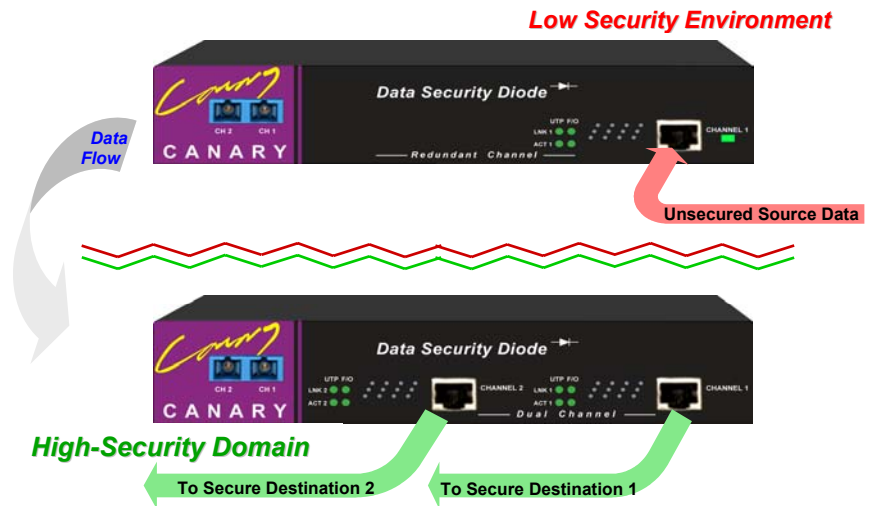
Application 2: Canary Data Security Diodes are positioned to allow parallel (duplicate) transmission of authorized Data *originating* from a single restricted, High-Security source to a pair of weakly defended or non-protected, *insecure* destinations.

Security Diodes partition their data paths to *shield* the secure server from hidden viruses, Trojans, malicious programs or other intrusion attempts and prevent the loss or unintended release of critical data or its corruption (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, full-duplex traffic. Full-Duplex data handling functions 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-20RD/DR & GT-10XRD/DR Redundant Data Security Diodes



Application 1.

▪ Plug-and-Go Connections:

Configure your applications to run via UDP. Connect the *un-secure* device to the transmit-only CT-20RD or GT-10XRD Data Security Diode; then link that Diode to a receive-only CT-20DR or GT-10XDR Security Diode using a pair of Fiber cables; next connect the receive-only Security Diode to a pair of secure destination Hosts for *redundant*, safe, one-way data transmissions. (*Application 1.*) Reverse 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. There is no vulnerable software, firmware, memory or buffers that can be exploited to attack and surreptitiously alter or disable their function.

Using UDP or similar protocol over the 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-20RDn: (one) RJ-45 (100BASE-TX), **Tx** (two) 100Mb m/m (SC/ST) *
 - CT-20DRn: (one) RJ-45 (100BASE-TX), **Rx** (two) 100Mb m/m (SC/ST) *
[n = 1 ~ SC-type Fiber connectors & n = 2 ~ ST-type connectors]
 - CT-20RDnS ~ Single-mode (s/m) version of Transmit-only (**Tx**) model *
 - CT-20DRnS ~ Single-mode (s/m) version of Receive-only (**Rx**) model *
 - GT-1055RD: (1) 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-1031RD ~ 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-20RDMS: Same as RD1S but (2) Multiplexed s/m SC on (1) Fiber ^
 - CT-20DRMS: Receive-only – Same Interfaces as DRnS (n = 1 ~ SC) ^
 - GT-1031RDM: Same as 1031RD 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-X |
| | IEEE 802.1d | Spanning Tree: None |
| | IEEE 802.1q | VLAN: Limited Functionality |
| | IEEE 802.3x | Flow Control Not Supported |

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|--------------------|---------------------------------------|
| 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 |
|---------------|---|

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|---------------------|--------------------------|
| Temperature: | Operating: 0° C to 50° C |
| | Storage: -20° C to 70° C |

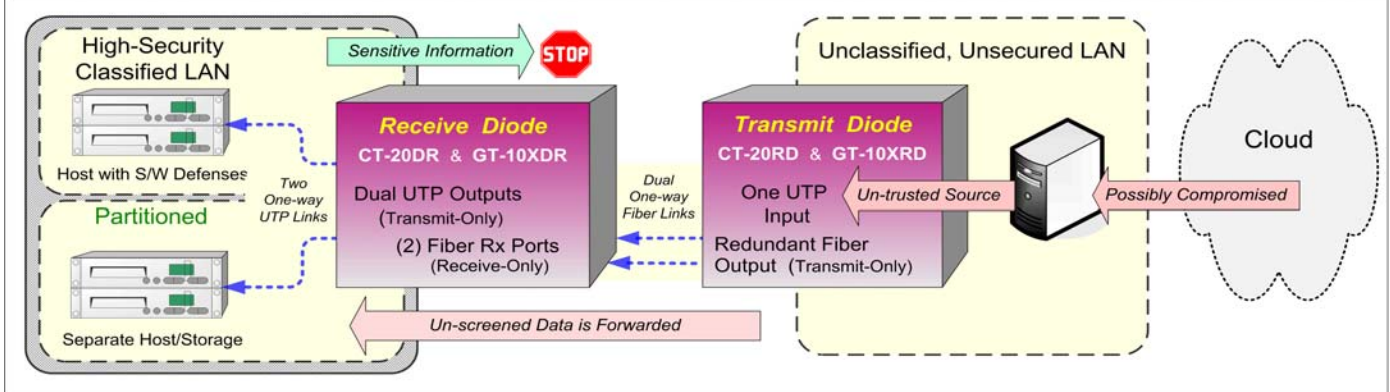
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|------------------|--------------------------|
| Humidity: | Operating: 10% to 80% RH |
| | Storage: 5% to 90% RH |

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|-------------------|--------------------------------------|
| Emissions: | FCC Part 15 of Class B & CE: Pending |
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| Safety: | US 21 CFR (J) & EN 60825-1 standards and UL 1950 applications, EN 60950: Pending |
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|--------------------|--|
| 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) |

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|----------------|---------------------------------|
| 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
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