

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!"** ▪

Uni-Directional Data Security Diodes are one more defense layer against a broad range of internal/insider or external cyber threats that can escape common security applications – to reveal and corrupt sensitive data or make other mission-critical information services non-available.

Place Canary Uni-Directional Data Security Diodes in environments where un-restricted two-way, bi-directional communications expose secure servers and their sensitive data to penetration and malicious attack.

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

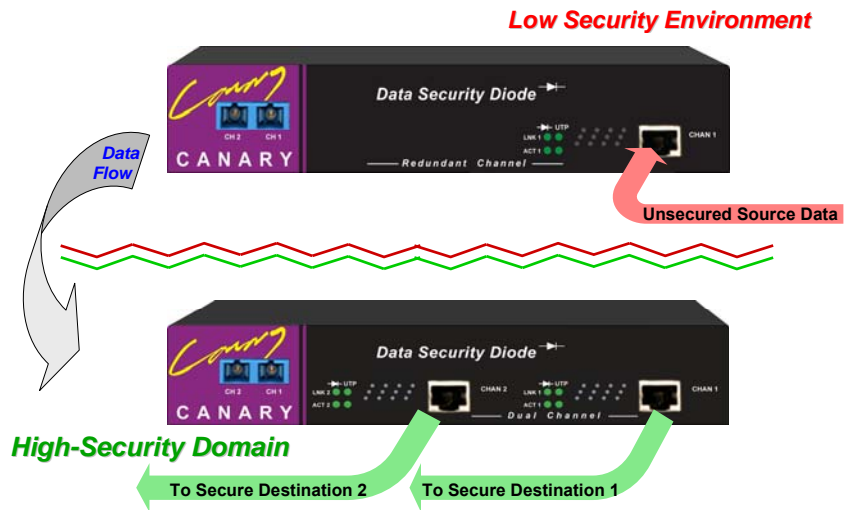
Application 2: Canary Data Security Diodes are positioned to allow duplicated/parallel transmission of authorized Data *originating* from a single restricted, High-Security source, to a pair of unprotected, *insecure* destinations.

Security Diodes partition their data paths to *shield* secure sources from hidden Trojans, and other intrusion attempts, preventing the unintended corruption, release or exposure of sensitive information. (*Application 2.*)

Local Diode/Host UTP connections are nominally full duplex. However, bi-directional traffic is never transmitted between linked Data Diodes. Data handling functions including IP acknowledgements, Flow-Control and error correction are completely disabled and no internal or external means are available to restore inter-Diode bi-directional capability.

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

CT-20RD/ CT-20TR & GT-55RD/ GT-55TR Redundant Data Diodes



Application 1.

▪ Plug-and-Go Connections:

Configure your applications to run via UDP. Connect the *un-secure* device to CT-20RD or GT-55RD transmit-only Data Security Diodes that forward the traffic to remote, receive-only CT-20TR or GT-55TR Diodes. The receive-only Diodes copy the traffic to *redundant* pairs of secure Destination Hosts. (*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 – Inter-Diode Links & Local Connections:

- CT-20RD1: (Two) Simplex SC Fiber ports: **Tx** only, 100BASE-FX *
(1) *Local* Source-Host port: RJ-45/UTP
 - CT-20TR1: (2) Simplex SC Fiber ports: **Rx** only, plus (2) *Local* RJ-45
 - CT-20RDS1: Same as CT-20RD1 above, with Fiber ports SC (s/m) *
 - CT-20TRS1: Same as CT-20TR1 above, with Fiber ports SC (s/m)
[1 ~ SC-type m/m Fiber connector, 2 ~ ST-type; S1 ~ SC s/m connector]
 - GT-55RD: (Two) Simplex SC Fiber ports: **Tx** only, 1000BASE-SX *
(1) *Local* Source-Host port: RJ-45/UTP
 - GT-55TR: (2) Simplex SC Fiber ports: **Rx** only, plus (2) *Local* RJ-45
 - GT-31RD: Same as GT-55RD above, with Fiber ports SC/LX (s/m) *
 - GT-31TR: Same as GT-55TR above, with Fiber ports SC / LX (s/m)
[X = 55 ~ multi-mode SX/SC-type and X = 31 ~ single-mode LX/SC-type]
- Other versions change modes, utilize CWDM or long-reach multiplexed optics for *inter-diode links* between *Transmit-only* and *Receive-only* units.

Networking – Local User Connections:

- 100BASE-TX & 1000BASE-T: Auto-negotiation and Auto-crossover enable half/full duplex Ethernet Diode Links with *local* Source and separately, *remote* Destination equipment.
- * 100 & 1000 Mbps Fiber *Inter-Diode Links* do not forward full duplex bi-directional traffic. UDP Destination Address, Port Number & Checksum are enabled by application as desired.

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

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, wall-mount. 9 - 48 VDC input plus Terminal Block option
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Temperature:	Operating: 0° C to 50° C Storage: -20° C to 70° C
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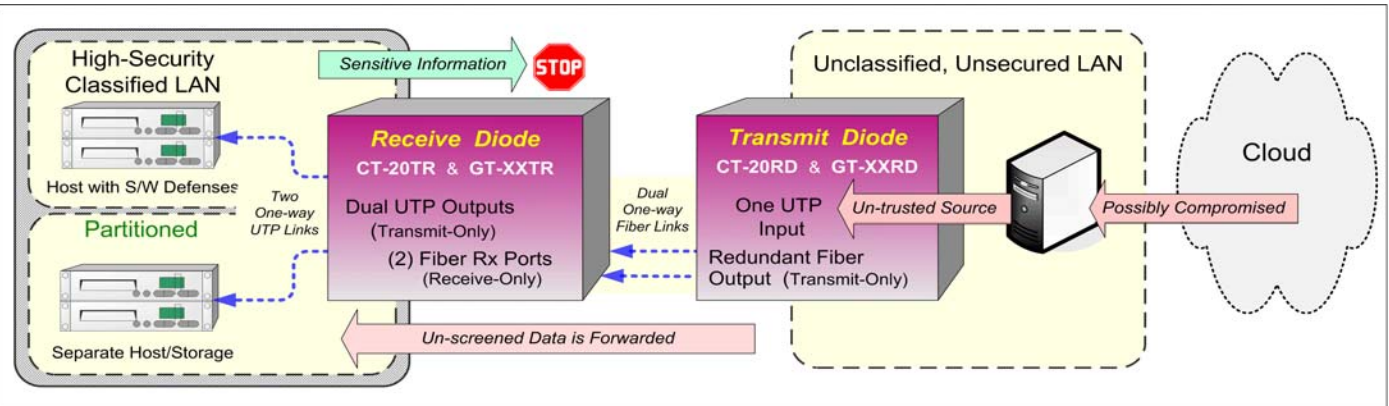
Humidity:	Operating: 10% to 80% RH Storage: 5% to 90% RH
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Emissions:	FCC Part 15 of Class B & CE: Pending
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Safety:	US 21 CFR (J) & EN 60825-1 standards and UL 1950 applications, EN 60950: Pending
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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
 ISO 9001 : 2008 Registered Company

