

New! Canary Uni-Directional Data Security Diodes

Featuring:

- **One-Way 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 into 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: Canary 100 Megabit **CT-20SD** and Gigabit **GT-10SD** Data Security Diodes forward information originating from an *un-secured* open source to a restricted High-Security destination. They simultaneously partition the data path to stop all return-path transmissions and completely block the reverse transmission of sensitive information.

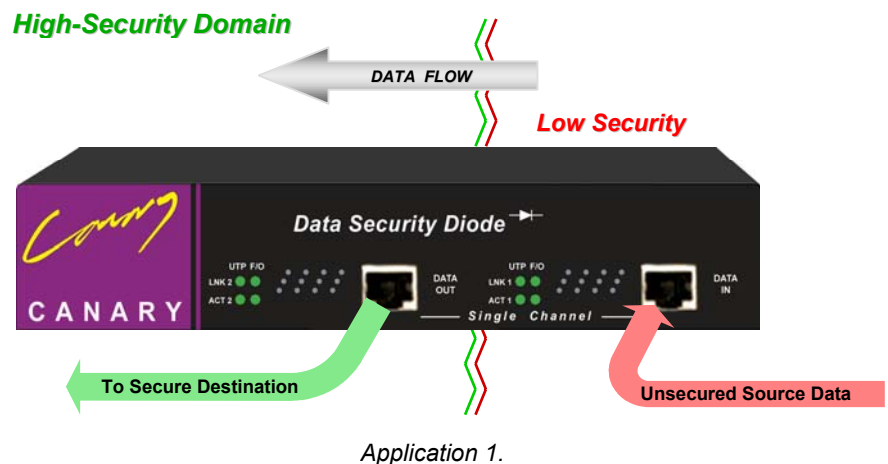
Application 2: Position a Canary Data Security Diode to *selectively forward* authorized data originating from a secured, trusted source to weakly protected, *insecure* destinations.

It also blocks the return path to *shield* the secure source from hidden viruses, Trojans, malicious instructions or other intrusion attempts. This prevents the exposure of critical data, its non-availability and its possible loss or corruption

CT-20SD and **GT-10SD**, Copper RJ-45 ports provide *Auto-cross* and *Auto-negotiation* on their twisted pair links. Note: even when nominally full-duplex twisted pair links are established at Data Diode/Host interfaces, they never physically transmit bi-directional, full-duplex 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 offer Canary Data Security Diodes *"Deliver increased confidence and peace of mind!"*

CT-20SD & GT-10SD – UTP to UTP Single-Point Diodes



▪ **Plug-and-Go UTP Connections:**

Configure your application to run via UDP and connect the **CT-20SD** or **GT-10SD Security Diode** "Data-In" port to the *un-secure* device port; then simply connect the **Security Diode** "Data-Out" port to the Secure Domain Host for protected, one-way data transmission (*Application 1*). Reverse the connection scheme 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 **CT-20SD** or **GT-10SD 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 their cable connections to thwart unauthorized access and safely deliver critical data where needed – *Easy, Secure, Information Availability!*

Canary Communications

Main Features:

Interfaces:

- CT-20SD: Two 100BASE-TX (RJ-45) Ports *
- GT-10SD: Two 1000BASE-T (RJ-45) Ports *

Networking:

- 100BASE-TX & 1000BASE-T: Auto-negotiation and Auto-crossover establish links to Source & Destination equipment. Links may be configured to be Full-duplex, however **NO** Full-duplex traffic is transported or propagates bi-directionally.
 - Fiber ports: NONE
- * NOTE: 100 Mbps & 1000 Mbps Ethernet *Links & Data Rates* without bi-directional 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

Power:

- 100 ~ 240 VAC Auto-ranging Power input and +5 VDC Power Output

Mechanical & Environmental:

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



Specifications:

Standards:	IEEE 802.3u	100BASE-TX *	or;
	IEEE 802.3ab	1000BASE-T *	
	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.) or;
1000 Mbps (One-way transmission Max.)

Max Distances: RJ-45/UTP : 100 meters

* See *Data Rates* Note above *

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

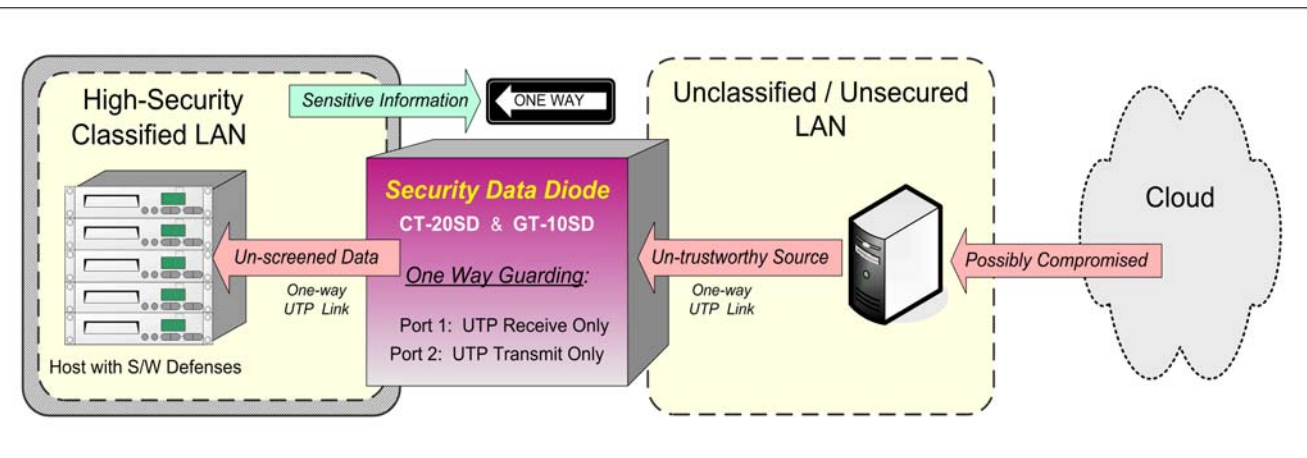
Humidity: Operating: 10% to 80% RH
Storage: 5% to 90% RH

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
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