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

Protect secure servers and sensitive data from compromise. Place Data Security Diodes in environments where un-restricted two-way, bi-directional communications increase the risk of penetration, malicious attack and data loss.

**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 a weakly protected, insecure destination.

The partitioned data path shields the Secure Source from hidden viruses, Trojans, malicious programs or other intrusion attempts and prevents the corruption or unintended release of critical data, or its loss and non-availability.

Local Diode/Host UTP connections are nominally full duplex. However, bi-directional full duplex traffic is never internally transmitted between Data Diode input and output ports. Data handling functions including IP acknowledgement, 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 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. Connect the un-secure device to the CT-20SD or GT-10SD Security Diode “Data-In” 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!
Main Features:

Interfaces – Local Connections:
- CT-20SD: Two 100BASE-TX (RJ-45) Ports
- GT-10SD: Two 1000BASE-T (RJ-45) Ports
  (plus Internal Fiber Optic Link between physically isolated PCBs)

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, with remote Destination equipment.

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

Mechanical & Environmental:
- Inside, Desktop locations or 19” rack-enclosures
- Two 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.

Specifications:

Standards:
- IEEE 802.3u 100BASE-TX *
- 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 *

Power:
- 100 ~ 240 VAC Auto-ranging wall-mount;
- 9 - 48 VDC input plus Terminal Block option

Temperature:
- Operating: 0º C to 50º C
- Storage: -20º C to 70º 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.)

For more information please visit us at:
www.canarycom.com
info@canarycom.com

Canary Communications is an
ISO 9001 : 2008 Registered Company