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!"***

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 malicious attack, penetration and data loss.

Application 1: 100-Megabit ***CF-21USD*** and Gigabit ***GF-55USD*** 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 or *insecure* destinations.

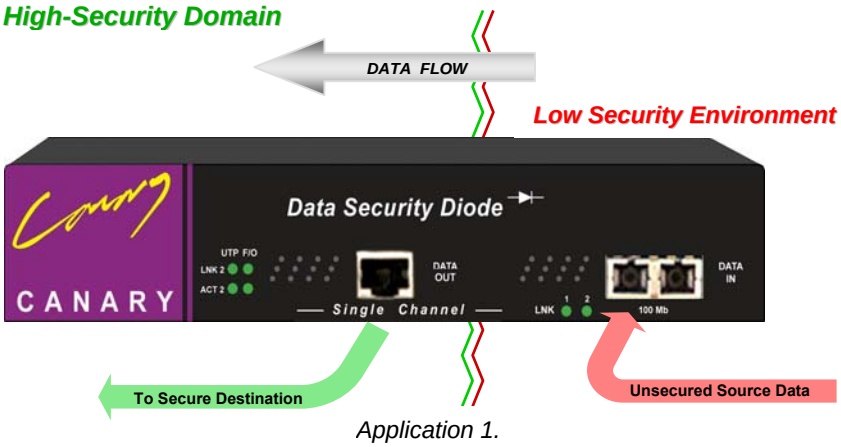
The partitioned data path *shields the* Secure Source from hidden viruses, Trojans, malicious programs or other intrusion attempts and prevents the corruption or unintended release of critical data, or its loss and non-availability.

Local Host to Diode Fiber & UTP connections are nominally in full-duplex. However, bi-directional full-duplex traffic is not internally forwarded between Data Diode input and output ports. IP acknowledgement, Flow-Control and error correction are completely disabled and no internal or external means are available to restore bi-directional capability.

A *GF-**55USDN*** with Fiber-Negotiation enabled, can actively link with Source devices unable to disable their own Fiber port Negotiation.

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

CF-21USD, GF-55USD & GF-55USDN – Fiber to UTP Single-Point Diodes



Application 1.

▪ *Plug-and-Go Fiber & UTP Connections:*

Configure your application to run via UDP. Connect the *un-secure* device to the *CF-21USD or GF-55USD/ GF-55USDN* 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 (*Solution 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.

Fiber-Negotiation [N]: Link to devices that cannot disable Fiber Negotiation

▪ *Hardwired Immunity from External Software threats:*

Canary *CF-21USD* and *GF-55USD 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 the 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 – Local Connections:

- CF-21USD: One each: 100BASE-TX and 100BASE-FX *
- GF-55USD: One each 1000BASE-T and 1000BASE-SX*
- GF-55USDN: Source Host to Diode Input Fiber–Negotiation enabled

* Fiber port connectors – 100 Mbps & 1000 Mbps:

[21 ~ SC-type & 22 ~ ST-type m/m Fiber; 91 ~ SC s/m type Fiber]

[55 ~ multi-mode SX/ SC-type Fiber and 31 ~ single-mode LX/ SC-type]

(*plus Internal Fiber Optic Link between physically isolated PCBs)*

Please contact Canary for technical details on additional models.

Management:

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

Mechanical & Environmental:

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

Networking – Local User Connections:

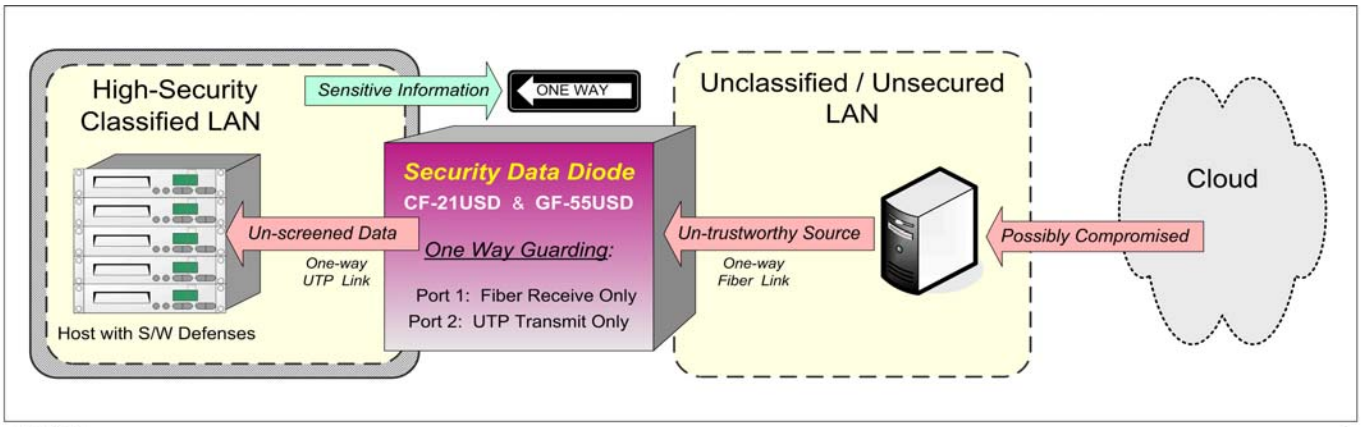
- 100BASE-TX & 1000BASE-T: Auto-negotiation and Auto-crossover enable half/full duplex Ethernet Diode Links with *remote* Destination Host equipment.
- 100BASE-FX & 1000BASE-SX/LX: Handshaking to auto-configure *local* full-duplex links with Source equipment. Fiber-Negotiation [N] links to devices with Fiber-Negotiation fixed ON.

FCC Class A | CE Approval | Pending

Specifications:

Standards:	IEEE 802.3u	100BASE-TX /FX * or;
	IEEE 802.3ab,x	1000BASE-T/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.) or; 1000 Mbps (One-way transmission Max.)	
Max Distances:	RJ-45/UTP : 100 meters	
	Fiber Optic :	
	100 Mb: 2 Km to 80+ Km & CWDM option	
	1000 Mb: 0.5 Km to 80+ Km & CWDM option	

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.)



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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

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