New! Canary Uni-Directional Data Security Diodes

Featuring:

- **One-Way Data Transmission**
- **Unauthorized Transmissions Blocked**
- **Fiber-Optic Mode and Wavelength Conversion Match 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-21SD*** and Gigabit ***GF-55SD*** Single-Point 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.

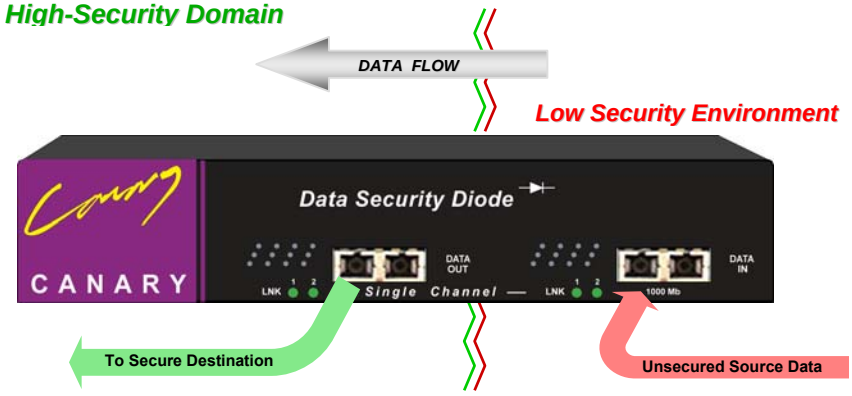
The partitioned data path *shields the* Secure Source from hidden viruses, Trojans, malicious programs or other intrusion attempts and prevents the corruption or unintended release of critical data, or its loss and non-availability.

Local Host to Diode Fiber connections are nominally 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-55SD[N]* 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-21SD, GF-55SD & GF-55SDN – Fiber to Fiber Single-Point Diodes



Application 1.

▪ *Plug-and-Go Fiber Connections:*

Configure your application to run via UDP and connect the *un-secure* device *to the CF-21SD or GF-55SD/GF-55SDN* 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.

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

▪ *Hardwired Immunity from External Software threats:*

Canary *CF-21SD* and *GF-55SD/GF-55SDN - 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-21SD: Two: 100BASE-FX (multi-mode / single-mode)*
- GF-55SD: Two: 1000BASE-SX (LX single-mode options)*
- GF-55SDN: 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:

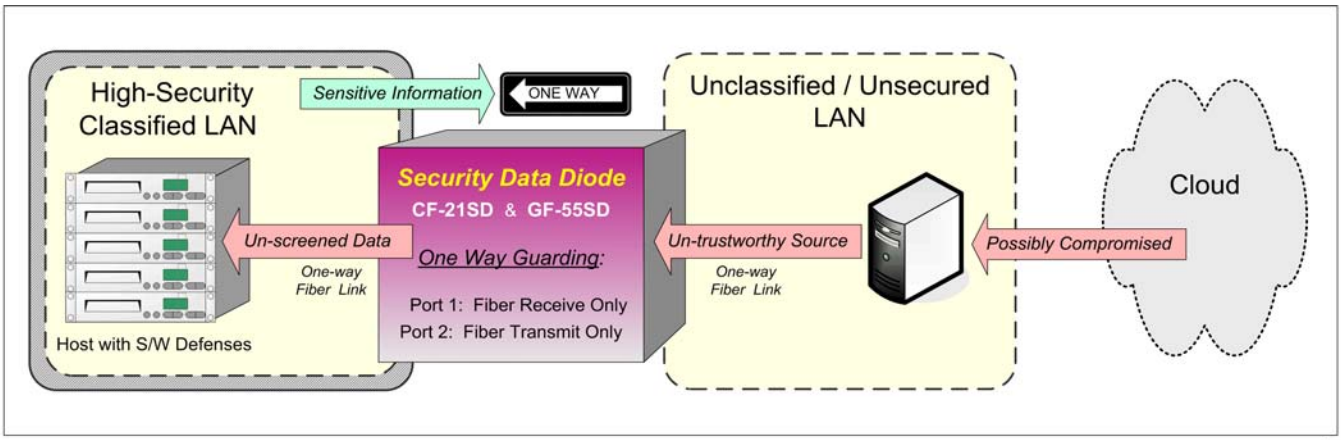
- 100BASE-FX & 1000BASE-SX/LX: Handshaking to auto configure *local* full duplex links with Source equipment. *Local* user connections operate as Full-duplex, however *NO* Full-duplex traffic is transported or propagates bi-directionally.

FCC Class A | CE Approval | Pending

Specifications:

Standards:	IEEE 802.3u	100BASE-FX* or;
	IEEE 802.3z	1000BASE-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.) 1000 Mbps (One-way transmission Max.) * See *Link and Data Rates* Note above *	
Max Distances:	Fiber Optic :	100 Mb: 2 Km, 20, 40, 60, 80 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
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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