New! Canary Uni-Directional Data Security Diodes

Featuring:

▪ One-Way, Two-Channel Data Transmission ▪ Unauthorized Transmissions Blocked ▪

▪ Mixed RJ-45 and Duplex Fiber Input Ports for Matching Host Connections ▪

▪ "We Deliver Increased Confidence and Peace of Mind to the Customer!" ▪

Place Canary *Uni-Directional* Data Security Diodes in 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 and help defend against potential denial-of-service attacks, loss of critical data or its non-availability that can be disruptive to organizations and mission-critical functions.

Application 1: Twin input/output Data Security Diodes forward information originating from two *un-secured* open sources, to a pair of restricted High-Security destinations using two Fiber-optic channels. They simultaneously partition each data path to completely block sensitive data from being transmitted in the reverse direction.

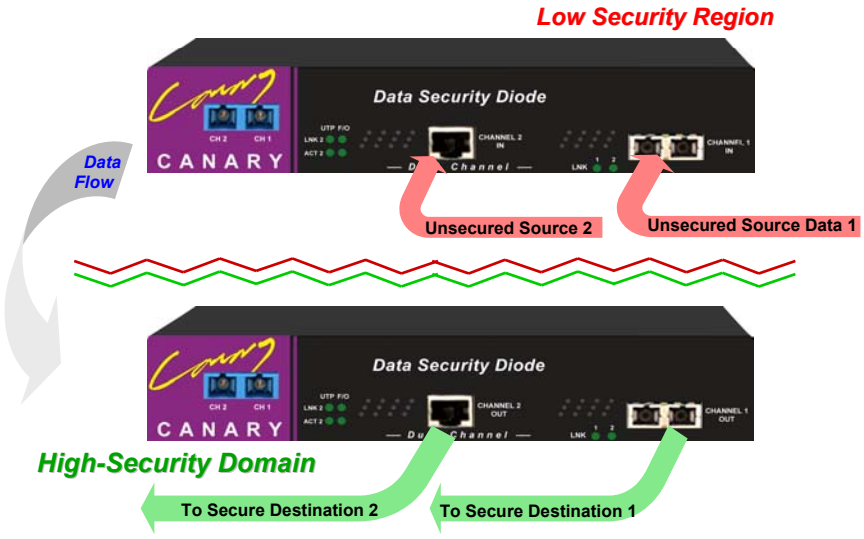
Application 2: Position a set of Canary's Data Security Diodes for parallel transmission of authorized Data originating from trusted High-Security sources to pairs of weakly protected, *insecure* destinations.

Security Diodes partition their data paths to *shield* secure source(s) from hidden viruses, Trojans, or other malicious programs and prevent the corruption or unintended release of critical data, or its loss and non-availability.

RJ-45 ports employ *Auto-cross* and *Auto-negotiation* on twisted pair links. Note: even when nominally Full-Duplex, UTP or Fiber links are established at Data Diode/Host interfaces, they never physically transmit Full-duplex, bi-directional, 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 "*Deliver increased confidence and peace of mind!*"

CF-21UTD/DR & GF-55UTD/DR Twin-Channel Data Diodes



Application 1.

▪ Plug-and-Go UTP & Fiber Connections:

Configure your applications to run via UDP. Connect a *CF-21UTD* or *GF-55UTD* transmit-only *Data Security Diode* to a pair of *un-secure* devices; then link the transmit *Diode* to a receive-only *CF-21UDR* or *GF-55UDR Security Diode* using a pair of Fiber cables. Next, connect the receive-only *Security Diode* to Secure Destination Hosts for safe, one-way data transmissions. (*Application 1.*) Reverse the 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 a 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:

- CF-21UTD: One each: RJ-45 & SC (m/m) Fiber; ***Tx*** (2) 100BASE-FX *
  CF-21UDR: Receive-only – Same Interfaces ***Rx*** 100BASE-FX *
- CF-91UTD: One each: RJ-45 & SC (s/m) Fiber; ***Tx*** (2) 100BASE-FX *
  CF-91UDR: Receive-only – Same Interfaces ***Rx*** 100BASE-FX *
  [21 ~ SC-type m/m Fiber connector, 22 ~ ST-type; 91 ~ SC s/m type]
- GF-55UTD: One each: RJ-45 & SC (m/m) Fiber; ***Tx*** (2) 1000BASE-SX *
  GF-55UDR: Receive-only – Same Interfaces ***Rx*** 1000BASE-SX
- GF-31UTD: One each: RJ-45 & SC (s/m) Fiber; ***Tx*** (2)1000BASE-LX *
  GF-31UDR: Receive-only – Same Interfaces ***Rx*** 1000BASE-LX
  [X = 55 ~ multi-mode, SC-type and X = 31 ~ single-mode, SC-type]

Following models utilize *Multiplexed, 2-channel inter-diode links* (via Single-Fiber cable) between *Transmit-only* and *Receive-only* units **^**

- CF-91UTDM: Same as 91UTD but (two) Multiplexed s/m on (one) Fiber ^
  CF-91UDRM: Receive-only – Same Interfaces ^
- GF-31UTDM: Same as 31UTD but (two) Multiplexed LX on (one) Fiber ^
  GF-31UDRM: Receive-only – Same Interfaces ^

Please contact Canary for technical details on additional models.

Networking:

- 100BASE-TX & 1000BASE-T: Auto-negotiation and Auto-crossover to establish Links with source & destination equipment. Links may be automatically configured as Full-duplex, however Full-duplex traffic is not transported or forwarded bi-directionally.

* NOTE: 100 Mbps & 1000 Mbps Ethernet *Links* are without bi-directional TCP 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

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)

FCC Class A | CE Approval | 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 Power input; and +5 VDC Power Output

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

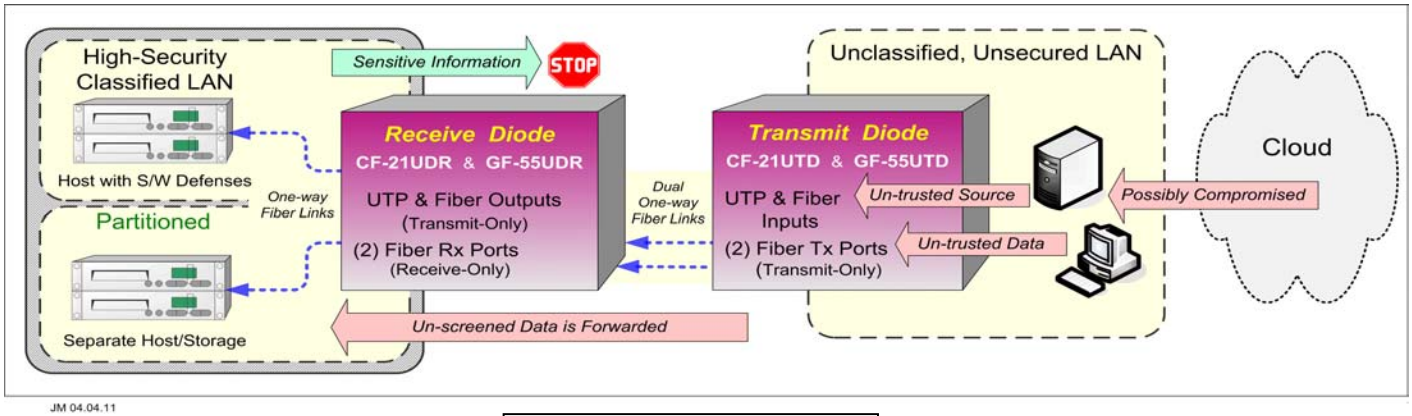
Humidity: Operating: 10% to 80% RH
Storage: 5% to 90% RH

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

TÜV USA Member of TÜV NORD Group

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