



# WSD-600

## Cyber Security Products

- Gigabit Ethernet Single/Uni-Directional fiberoptic coupled network isolator - **Network to Network Data Diode**.
- Used for secured Single/Uni-Directional data transfers in Critical Infrastructure and highly secured and sensitive Networks. CIP device.
- Compatible with any Uni-Directional data transfer application.
- Pure HW unmanaged device, assures absolute immunity, security, hacker/intrusion proof device.
- Composed of dual, fiber-optic coupled, transparent data diodes. Support any frame size.
- Auto-negotiation, auto MDI 1000Base-T standard interfaces.
- Supports Uni-Direction end to end verification of link integrity.
- Includes dual power inlets and power supplies for complete network isolation.
- 19" 1U desktop and rack mount installation.
- Plug & Play installation and operation.



The WSD-600 is a Gigabit Ethernet Single/Uni-Directional network to network fiberoptic coupled isolation device - Network to Network Diode, design and approved for Critical Infrastructure Protection (CIP) secured communication.

WSD-600 is pure HW unmanaged device composed of a pair of single/uni-directional transparent network diodes (based on WSD-6) internally connected by a single fiber optic cable. The two diodes are powered by two separated power supplies.

The unique diode implementation and product architecture of the WSD-600 assures complete isolation between the networks as well as provides utmost immunity and security for single/uni-directional communication between two networks.

The WSD-600 located isolated in front of the network endpoint servers running the data transfer applications, provide uncompromising single/uni-direction cyber immune solution eliminating threats like intrusion, embedding and hacking.

The WSD-600 is compatible with any single/uni-direction data transfer SW application, either provided by WizLAN, a third party or developed by the end user.

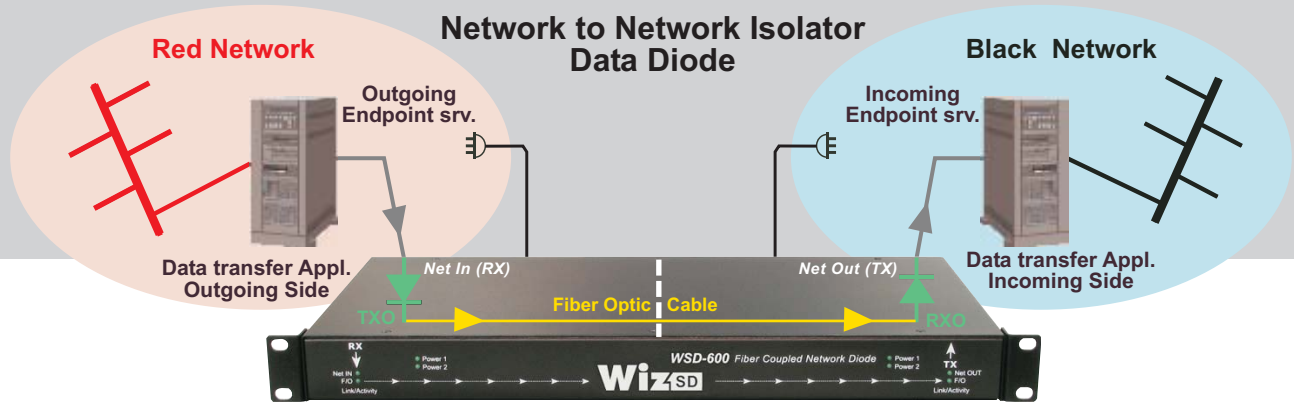
WizLAN software application, VectorIT, facilitates unidirectional transfer of certain TCP-based protocols as well as raw files over standard Ethernet interfaces with utilization of up-to full wire speed. Currently supported protocols are FTP, SMTP, TCP and raw files. The software is dedicated to and employs only uni-directional data flow over single or bidirectional link.

The WSD-600 includes a unique link verification function in which the link of the incoming endpoint (receiving server) will drop if there is any problem with the end to end link continuity up-to the outgoing endpoint (transmitting server). This is a powerful HW management feature especially for single direction applications.

The WSD-600 is a plug & play device that doesn't require any setup and includes visible LED indications that assure fast & easy installation, operation and maintenance.



## Typical Configuration



## Technical Specifications

### WSD-600 Single/Uni-Directional Network to Network Gigabit Data Diode

#### 1000Base-T Copper TP Network ports (RJ45)

1000Base-T, auto-negotiation Auto MDI/MDIX and polarity  
100meter (330 ft) distance over CAT5e or above TP cables

#### 1000Base-SX Fiber Optic Ports (internal)

interconnected by MM F/O patch cord inside the unit.

#### LED Indicators

##### Network In side

POWER 1 - Main power supplied and power supply 1 is "ON"

POWER 2 - Main power supplied and power supply 2 (redundant) is "ON"

Net In - LINK/ACT - Link/Activity indication for the Network In  
1000Base-T port

F/O - Link/Act - Link/Activity indication of the internal F/O diode port

##### Network Out side

POWER 1 - Main power supplied and power supply 1 is "ON"

POWER 2 - Main power supplied and power supply 2 (redundant) is "ON"

Net Out - LINK/ACT - Link/Activity indication for the Network Out  
1000Base-T port

F/O - Link/Act - Link/Activity indication of the internal F/O diode port

#### Link Verification (PONL option, pre-set at factory)

The Link of the NIC of the Incoming endstation server will be established "ON" only if the WSD-600 operates properly and its Link with the Outgoing endstation server is properly established.

#### Technology

Pure HW based single/uni-direction physical layer transparent 3R repeater (Re timing, Reshaping and Regeneration).  
Fully transparent, supports any frame length.

#### Standard Compliance

IEEE802.3ab, IEEE802.3z

#### Environment

Operating Temp (°C):

Operating Temp (°F):

#### Standard

0 to +45

32 to 113

#### IND

-20 to +70

-4 to 158

Storage: -40 to +85°C (-40 to 185°F)

Humidity: 10% to 90% non-condensing

#### Safety and Emission

CE, FCC part 15, EN60950

#### Power

Two separated and isolated wide range power supplies, TX side and RX side.

AC inputs: 85 - 264VAC 47-440Hz.

Max. power consumption: 5Watts per side/PS.

Optional: Redundant (total of four) power supplies

#### Installation

19" 1U rackmount or desktop

#### Module Dimension

WSD-600

#### Height (1U)

44mm(1.75")

#### Width

483mm(19")

#### Depth

225mm(8.9")

## VectorIT Software (optional sold separately)

The software facilitates unidirectional transfer of certain TCP-based protocols as well as raw files over standard Ethernet interface. All data between the two endpoints flows in one direction only, which can be further enforced and secured by the hardware. Currently supports FTP, SMTP, TCP and raw files.

VectorIT application is installed on dedicated machines, servers or workstations running Windows OS (not supplied) on both networks endpoints.

## Ordering Information

**WSD-600/\_/\_** Network to Network single/uni-directional F/O coupled transparent data diode, 1000Base-T to 1000Base-T, [environment]/[Options].

**VectorIT** Unidirectional data transfer SW application, supports certain TCP-based protocols as well as raw files over standard Ethernet interface. Please contact WizLAN for more information.

## Ordering terminology

**WSD-600/[environment]/[option]**

[ ] - Standard Temp. 0°C to +45°C

IND - Industrial Temp. -20°C to +70°C

[ ] - two power supplies

[R] - four (redundant) power supplies

Example: **WSD-600** Network to Network single/uni-directional F/O coupled transparent data diode, 1000Base-T to 1000Base-T.

All specifications are subject to change without notice. Neither manufacturer nor seller shall be liable for any loss, damage or injury, direct or consequential, arising from the inability to use the product.