

## Hardware Enforced Security Protocol



**The Data Diode Module** is designed to protect the integrity of a secure surveillance network by strictly enforcing a one-way-only flow of data from a secure network to a public network. The Data Diode Module accomplishes this by implementing a 100% hardware-enforced security protocol that cannot be disabled or bypassed.

The Data Diode Module connects multiple networks with different security classifications which is a critical element for the Defense and Industrial sectors.

### FEATURES:

**Gigabit Ethernet port to secure (Secure) network.** The Data Diode Module receives IP data from the secure network for forwarding to the public network. The secure network communicates with a fully compliant IP proxy that in turn forwards one-way UDP packets to

the public side of the Data Diode. With no logical or electrical receive path on the Secure side UDP interface, malicious packets can't make their way to the secure network.

**Dual Gigabit Ethernet ports to public (Unsecure) network.** The Data Diode Module can forward IP data from the secure network to the public network(s). In a mirror configuration of the Secure side, the public network communicates with a fully compliant IP proxy that receives one-way UDP packets from the secure side of the Data Diode. There is no logical or electrical transmit path on the Unsecure side UDP interface, so malicious packets can't make their way through the Diode to the secure network.

## Features

- ✈ One-way-only data flow
- ✈ Gigabit Ethernet port to secure (Secure) network
- ✈ Dual Gigabit Ethernet ports to public (Unsecure) network
- ✈ 1U rack mountable or table-top design
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### HARDWARE:

Sunhillo's Data Diode Module features a compact 1U enclosure based on the FAA deployed Sunhillo RIC1 5000 and Margate II ADS-B Receiver.

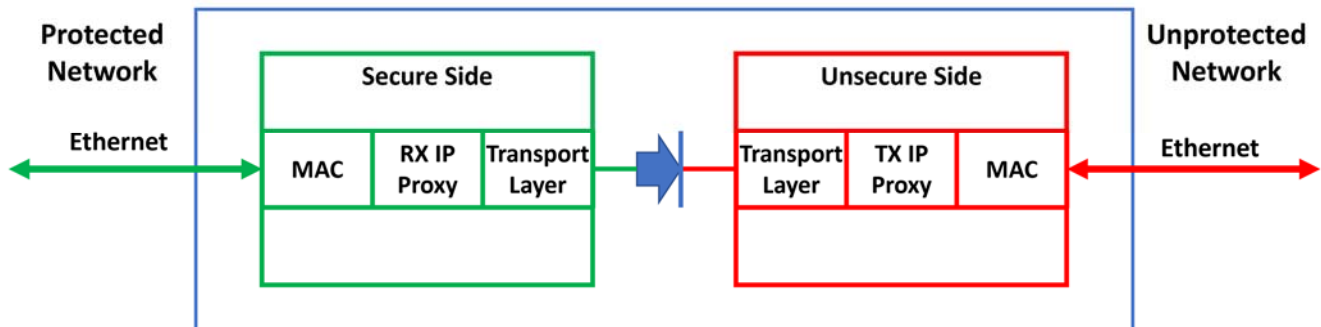
The front panel provides dual RJ45 Ethernet ports. These connections support Category 5e 10/100/1000 Ethernet cables, which provides an interface to a LAN's switch, router, or hub. In most applications, the Unsecure side LAN connections are to the public LAN(s).

The secure side Ethernet port connection is located in the center of the Data Diode rear panel. This connection supports a Category 5e 10/100/1000 Ethernet cable, which provides an interface to a LAN's switch, router, or hub. In most applications, the Secure side LAN connection is to the user's private LAN.

# Front and Rear Panels



## Data Diode Architecture



## Technical Specifications

### Data Diode

- Hardware enforced cybersecurity

### Ethernet

- (1) 10/100/1000BASE-T connection to Secure Side/Private Network
- (2) 10/100/1000BASE-T connections to Unsecure Side/Public Network

### Protocols

- TCP/IP
- UDP/IP

### Power

- 100-240VAC, 50-60 Hz, 0.65-0.35A
- 12W Max

### Optional Rackmount Sleeve Kit (P/N 010-U-RMS)

- 1U rackmount for standard 19-inch racks
- Captive fasteners allow for fast removal and replacement
- Rackmount sleeve has space for up to two Data Diodes

### Dimensions

Single Data Diode:

- Height: 1.61 in / 41 mm
- Width: 7.31 in / 185.68 mm
- Depth: 9.17 in / 233 mm

Populated 1U Sleeve:

- Height: 1.75 in / 44.45 mm
- Width: 17 in / 431.8 mm
- Depth: 9.25 in / 234.95 mm

### Weight (unpackaged)

- Single Data Diode: 3 lbs / 1.36 kg
- Empty Sleeve: 3 lbs / 1.36 kg
- Fully Populated Sleeve: 9 lbs / 4.08 kg

### Environmental (Tested to MIL-STD-810G)

- Storage Temperature: -50°C to +60°C
- Operating Temperature: 0°C to +50°C
- Operating Relative Humidity Range: 10-95%, noncondensing
- Operating Altitude: -300 ft to 10,000 ft

