HighSecLabs
Highest Security Solutions

HSL'S SECURE RS-232 ISOLATING CROSS-DOMAIN DIODES

The Secure RS-232 Isolators receive RS-232 data messages from any connected device and send them unidirectionally forward to its destination device, ensuring no return signal from the destination to the originating device.

The Secure RS-232 Isolator permits one-way data flow from the serial port of one computer system to the serial port of another.

Sending control and monitoring commands and status events between two secure devices is now possible by using the Secure RS-232 Isolator.

Controlling different devices of different classification levels using a central control system is accomplished by securely using HSL's Secure RS-232 Isolator.
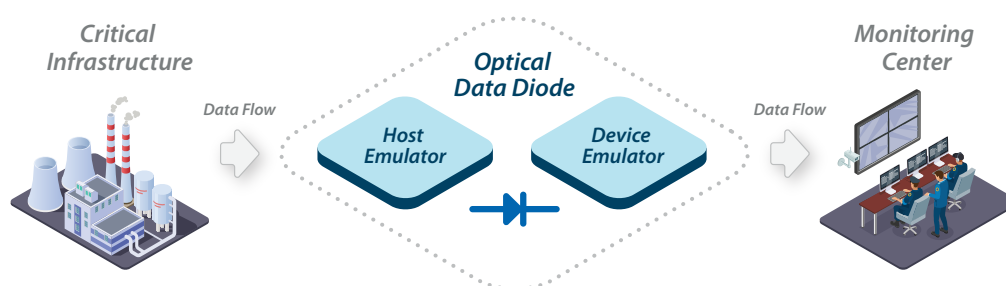
The configurable Secure RS-232 Isolator permits creating rule-based whitelists and blacklists to filter the information passed limiting the type of messages that can pass through the isolator.

The FF11N-4, FT11N-4, and FXJ11N-4 are especially suited to protect against data leakage and the insertion of malicious software in any scenario where command and monitoring information are sent between two otherwise separated networks. SCADA communication, System synchronization, control commands, and information sharing can all be done securely via the Secure RS-232 Isolator family.
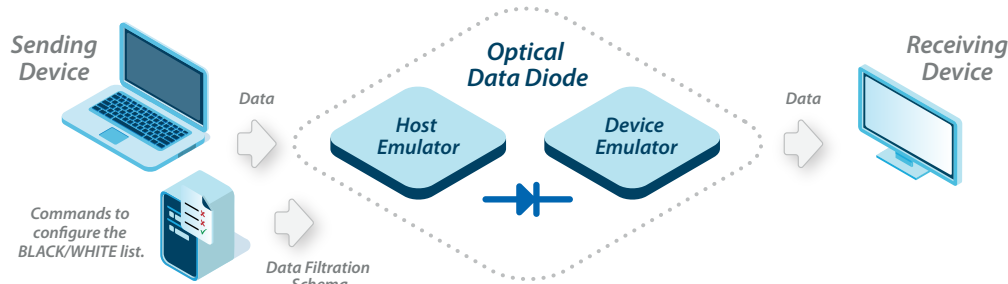
The CP11N-4 is designed explicitly for user-prompted copy-and-paste commands between two Windows computers to transfer the selected text unidirectionally from one computer to the other.

FT11N-4 Diagram

Critical Infrastructure — Data Flow — *Optical Data Diode* — Host Emulator — Device Emulator — Data Flow — *Monitoring Center*

FF11N-4/FXJ11N-4/CP11N-4 Diagram

Sending Device — Data — *Optical Data Diode* — Host Emulator — Device Emulator — Data — *Receiving Device*

Commands to configure the BLACK/WHITE list. — Data Filtration Schema
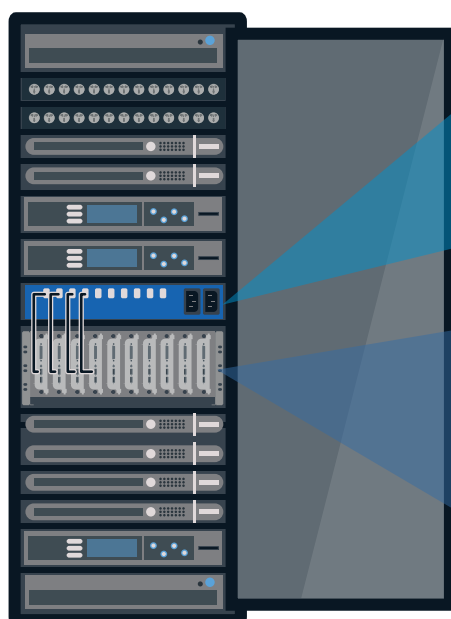
PRODUCT HIGHLIGHTS

- **Unidirectional by design**

  HW based enforcement of unidirectional data flow by using optical data diodes.

- **Rule-based system**

  Create rules based on regular expressions to enforce which commands and events pass through and which are blocked.

- **Flexible configuration**

  Serial communication parameters such as baud rate, parity, etc. are user-configured to fit any architecture

- **Transparent**

  The RS-232 Isolator is transparent to the other RS-232 devices in the setup, making it compatible for use in any architecture.
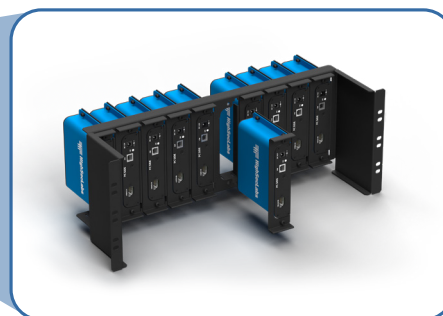
MOUNTING OPTIONS

- **HSL's rackmount kit 4U**

  The RK-4U-HKS-10 enables mounting up to 10 HSL Isolator diodes in a 19" 4U rack space.

- **HSL's rackmount kit 1U**

  The RK-1U-HKS-33 enables mounting up to 3 isolator-transmitter pairs in a single 19" 1U rack space.

- **IPDUI12**

  12 Port 12V DC power junction box

SPECIFICATION

PART NUMBER	FT11N-4	FF11N-4	CP11N-4	FXJ11N-4
PERFORMANCES				
Bandwidth	230,400 Kb/s	230,400 Kb/s	230,400 Kb/s	230,400 Kb/s
Filtration Method	None	Regex	Regex - Customizable	JSON schema
Data Limitations	N/A	10,000 characters	10,000 characters	10,000 characters
PHYSICAL				
Dimensions	145 x 105 x 28 mm (5.8 x 4.2 x 1.1 inches)			
Weight	0.3 kg (0.64 lbs)			
POWER				
Power Requirements	DC input 12V/1.5A maximum			
AC Input	Wall-mounted power supply included. Power input 90 to 240V AC			
Power Type	External power supply			
ENVIRONMENTAL				
Operating Temperature	32°F to 104°F (0°C to 40°C)			
Storage Temperature	-4°F to 140°F (-20°C to 60° C)			
Humidity	Operational: 20% to 80% non-condensing; Storage: 10% to 90% non-condensing			
SOFTWARE				
Supported OS	Windows, Linux, Mac			
GENERAL INFO				
Product life-cycle	10 years			
Warranty	2 Years			

PDUI12

RK−4U−HKS−10