

ENCRYPTED ISOLATORS

DATA SHEET

HSL's Encrypted Isolators provide hardware-enforced protection for video and HID (keyboard and mouse) communications in high-assurance environments.

Built on NIAP PP4.0 certified data isolation technology and featuring FIPS 140-3 compliant encryption, they enforce a strict unidirectional flow of video and HID data while blocking all other communication channels to and from connected systems. This architecture prevents unauthorized data transfer, mitigates external cyber threats, and protects video, audio, and HID traffic against interception, man-in-the-middle (MITM) attacks, and keylogging.

KEY FEATURES

Supports secure KVM extension:

- Enforces hardware-level restriction, isolation and encryption to data-in-transit between a host/console and the linked endpoint.

Host agnostic:

- Operates with any host device supporting USB and HDMI/DisplayPort interfaces.

Flexible deployment:

- Can be integrated into KVM extenders (Tx & Rx) or KVM over IP matrices as an inline security layer between host/console and endpoint.

Scalable by design:

- Additional Rx and Tx units can be added to existing KVM over IP infrastructures as needed.

Plug and play:

- Preconfigured with encryption/decryption keys for immediate deployment and simplified integration.

Ultra-HD Performance:

- Supports video resolutions up to 3840 x 2160 UHD.

SECURITY FEATURES

Standards-based security:

- The encrypted isolators are NIAP Protection Profile 4.0 certified for Peripheral Sharing Devices (PSD), and the cryptographic module is FIPS 140-3 compliant.

Restricted data flow:

- Only video and HID data is permitted to pass through the encrypted isolator.

Hardware-enforced isolation:

- A unidirectional data diode enforces a strict flow of video from the host to the console, and HID from the console to the host.

Data encryption:

- Video, audio, and HID data in transit is protected using AES-256 GCM encryption, preventing key logging and MITM attacks.

Independent security:

- Data restriction, isolation, and encryption are enforced by dedicated hardware, independent of the host operating system and software stack.

Built for trust:

- Encrypted isolators are developed and manufactured in house using a secure supply chain, and are TAA/BAA compliant.

PART NUMBER	FI11PHET-M	FI11PHER-M	FI11PHT-ME	FI11PHR-ME
Description	Secure 1-Port Encrypted KVM Isolator, Transmitter	Secure 1-Port Encrypted KVM Isolator, Receiver	Secure 1-Port Encrypted HID-Only Isolator, Transmitter	Secure 1-Port Encrypted HID-Only Isolator, Receiver
HOST / CONSOLE CONNECTIVITY				
Keyboard / Mouse	1x USB Type B	3x USB Type A	1x USB Type B	2x USB Type A
Video	1x DP/HDMI	1x DP/HDMI	1x DP/HDMI	1x DP/HDMI
ENDPOINT CONNEC-TIVITY				
Keyboard / Mouse	2x USB Type A	1x USB Type B	1x USB Type B	1x USB Type B
Video	1x DP/HDMI	1x DP/HDMI	1x DP/HDMI	1x DP/HDMI
RS-232	-	3-pin Serial Block	-	-
PERFORMANCE				
Max Resolution	UHD 4k up to 3840x2160 30Hz			
PHYSICAL				
Dimensions	140x210x28 mm / 5.5x8.2x1.1 in	140x214x28 mm / 5.5x8.4x1.1 in	145x105x28 mm / 5.8x4.2x1.1 in	140x28x109 mm / 5.5x4.2x1.1 in
Weight	1.3 kg / 2.9 lbs		0.3 kg / 0.6 lbs	
POWER				
Power Requirements	DC input 12V/1.5A Maximum			
Max Power Consumption	13 W	13 W	2 W	2 W
AC Input	External power supply unit. 90V - 240V AC			
ENVIRONMENTAL				
Operating Temperature	0°C to 40° C / 32°F to 104° F			
Storage Temperature	-20°C to 60° C / -4°F to 140° F			
Humidity	0%-80% RH, non-condensing			
COMPLIANCE				
Security	Certified to NIAP Common Criteria PP4.0 PSD Protection Profile			
Encryption	FIPS 140-3 Compliant			
Manufacturing	TAA/BAA Compliant			
Product	CE, RCM, FCC Class B, VCCI			
GENERAL INFO				
Product Lifecycle	10 Years			
Product Warranty	2 Years			

ORDERING INFORMATION

PRODUCT NUMBER	PART NUMBER	DESCRIPTION	QTY
CPN38355	FI11PHET-M	Secure 1-Port Encrypted KVM Isolator, Transmitter	1
		PWR / DP-HDMI Retention Kit	1
		Wall-Mounted 12V DC Power Supply	1
CPN38357	FI11PHER-M	Secure 1-Port Encrypted KVM Isolator, Receiver	1
		Wall-Mounted 12V DC Power Supply	1
CPN34375	FI11PHT-ME	Secure 1-Port Encrypted HID-Only Isolator, Transmitter	1
		Wall-Mounted 12V DC Power Supply	1
CPN34374	FI11PHR-ME	Secure 1-Port Encrypted HID-Only Isolator, Receiver	1
		HDMI Retention Kit	1
		Wall-Mounted 12V DC Power Supply	1

