

MEDIA EMULATOR DIODES

High Sec Labs' Media Diodes mitigate the risks of eavesdropping and data breaches when using peripheral audio and video devices.

Attackers can take control of a media device to listen in on classified or sensitive conversations in secure rooms or transfer data between secure and unsecured networks. HSL's Media Emulator Diodes, part of the larger family of Media Diode products, connect between a source (typically a PC) and a peripheral media device. The Media

Emulator Diode prevents attackers from exploiting media-related data leakage vulnerabilities and allows peripheral media devices to be shared safely as a resource among different networks of different security classifications.

KEY FEATURES

- **Unidirectional Flow:**

The Media Diodes enforce unidirectional flow of audio or video signals from the source. This prevents hackers from manipulating a speaker/headphone to function as a microphone for picking up surrounding conversations.

- **Device Emulation:**

The Media Diode's sophisticated emulation technology mimics the source for the connected peripheral device and the peripheral device for the source, ensuring there is never a direct connection between them.

- **KVM Compatibility:**

Emulating the source computer allows the Media Diode to connect to HSL's secure KVM switching devices.

- **Peripheral Device Support:**

HSL's Media Diodes offer support for microphones and webcams, providing channels that can be opened and closed with the press of a button.

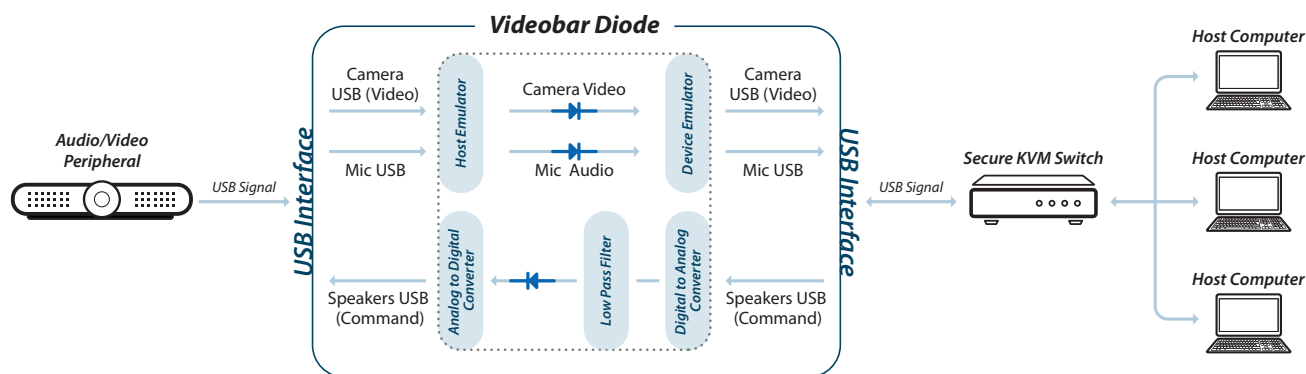
Note: Enabling media flow from a microphone or webcam is done only via push-button control. Once the flow is enabled, the Media Diode enforces the unidirectional flow of data.

- **Low-Pass Filter:**

Audio passing through a Media Diode goes through a low-pass filter that restricts the audio frequencies to the range compatible with the human ear. This prevents hackers from leaking data by broadcasting high-frequency signals to an external hacking device.

- **Push-Button Control:**

The Media Diode has pushbuttons to activate the peripherals, which can be configured to adjust how long a connection stays on. These buttons use a bi-color (red and green) LED to show ON/OFF status, and flicker before a disconnection. The Media Diode also detects a press-and-release as a single event, to prevent keeping the connection open by holding the button down nonstop.



Safely sharing a video bar between different networks

OPERATIONAL HIGHLIGHTS

- Prevents Hackers from Taking Advantage of Audio Data Leakage:**

The Media Diode blocks listening in to surrounding conversations by forcing unidirectional flow that prevents repurposing speakers as microphones. It uses a low-pass filter to block high-frequency signal attacks, and the channel operates on a timer, automatically closing any open channels after a set time to prevent listening in after the user believes the conversation has terminated.

- Easy to Install and Operate:**

The driverless Media Diodes quickly connect to the host PC and audio/video devices and can be operated with the press of a button.

- Custom Settings:**

The Media Diodes can be configured with a software tool that adjusts settings such as how long the audio and video channels remain open, how many times the allotted time can be extended, and whether a warning sound indicates the channels are about to close.

SPECIFICATION

MODEL NUMBER	FA10BB-4	FCA10BB-4	FS11USB2	FS11USB2-MC
FEATURES				
Input Interface (Host)	USB A		USB B	
Output Interface	USB A		USB C	
Microphone Support	✓	✗	✓	✓
Webcam Support	✗	✓	✓	✓
Device Compatibility	Standard USB A Headsets (Audio I/O)	Standard USB A Webcams	Standard USB-C Videobars (Asynchronous Transfer Mode)	CISCO Room & Desktop Series (Bulk Transfer Mode) USB-C Videobars
REMOTE CONTROL				
Support	✗	✓	✓	✓
Configuration Port	Micro USB		4-pin RS-232 Serial Block	
PHYSICAL				
Dimensions	85x 65x34mm / 3.3x2.6 x1.3in		104x28x140mm / 4.1x1.1x5.5in	
Weight	0.185kg / 0.41lb		0.3kg / 0.64lbs	
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	Operating - 20% to 80% non-condensing; Storage - 10% to 90% non-condensing			
Altitude	0 to 10,000ft			
GENERAL INFO				
Manufactured	BAA & TAA Compliant			
Product Life-Cycle	10 Years			
Product Warranty	2 Years			

ORDERING DETAILS

Model	P/N	Description	Qty
FA10BB-4	CPN30887	Secure Media Diode w/ Speaker and Headset Support, USB-to-USB	1
		3.5 Audio Cable Y Splitter, 1 Female, 2 Male	1
FCA10BB-4	CPN32402	Secure Web Cam Isolator	1
FS11USB2 / FS11USB2-MC	CPN35322 / CPN38837	Secure Videobar Diode (FS11USB2-MC includes Cisco support)	1
		1.8m / 6ft USB A to USB B Cable	1
		Media On/Off Button	1
		Wall-Mounted 12v DC Power Supply	1



FA10BB-4
Media Diode w/ Speaker and Headset Support



FS11USB2 / FS11USB2-MC
Secure Videobar Diode



FCA10BB-4
USB Webcam Isolator