



NIAP PP PSD 4.0  
CERTIFIED  
COMMON CRITERIA

# SECURE AUDIO DIODES

High Sec Labs' Audio Diodes mitigate the risks of eavesdropping when using peripheral audio devices.

Attackers can take control of an audio device to listen in on classified or sensitive conversations in secure rooms or transfer data from secure to unsecured networks. HSL's Secure Audio Diodes, part of the larger family of Media

Diode products, enforce a unidirectional connection between a source (typically a PC) and a peripheral audio device, which prevents attackers from exploiting audio-related data leakage.

## KEY FEATURES

- **Unidirectional Flow:**

The Audio Diode enforces 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.

- **Low-Pass Filter:**

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

- **USB Cutoff (FA10A-4 and FA10B-4):**

The USB channel for the audio is closed by default, cutting off the connection between the source and peripherals unless the channels are opened manually.

- **Push-Button Control:**

The Audio 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 Audio Diode also detects a press-and-release as a single event, to prevent keeping the connection open by holding the button down nonstop.



HSL Secure Audio Diode System Diagram



## PRODUCT HIGHLIGHTS

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

The Audio Diodes block listening in to surrounding conversations by forcing unidirectional flow. 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 channel has been closed.

- **Small Size:**

The 85mm X 65mm X 34mm unit takes up almost no room on the desktop.

- **Easy to Install and Operate:**

The driverless Audio Diodes quickly connect to the host PC and audio device and can be operated with the press of a button.

- **Custom Settings:**

The Audio Diodes can be configured with a software tool that adjusts settings such as how long the audio channel remains open, how many times the allotted time can be extended, and whether a warning sound indicates the channel is about to close.

## SPECIFICATION

MODEL NUMBER	FA10A-4	FA10B-4	FA10AO-4	FA10BO-4
<b>FEATURES</b>				
<b>Input Interface (Host)</b>	Analog	USB	Analog	USB
<b>Output Interface (Audio)</b>	Analog	Analog	Analog	Analog
<b>Always Open</b>	✗	✗	✓	✓
<b>PHYSICAL</b>				
<b>Dimensions</b>	85x 65x34mm / 3.3x2.6 x1.3in			
<b>Weight</b>	0.185kg / 0.41lb			
<b>ENVIRONMENTAL</b>				
<b>Operating Temperature</b>	0°C to 40°C / 32°F to 104°F			
<b>Storage Temperature</b>	-20°C to 60°C / -4°F to 140°F			
<b>Humidity</b>	Operating - 20% to 80% non-condensing; Storage - 10% to 90% non-condensing			
<b>Altitude</b>	0 to 10,000ft			
<b>SECURITY</b>				
<b>Certification</b>	NIAP PP4.0 Certified	NIAP PP4.0 Compliant	NIAP PP4.0 Certified	n/a
<b>GENERAL INFO</b>				
<b>Manufactured</b>	BAA & TAA Compliant			
<b>Product Life-Cycle</b>	10 Years			
<b>Product Warranty</b>	2 Years			

## ORDERING DETAILS

Model	P/N	Description	Qty
FA10A-4	CPN17328	Secure Audio Diode, Analog-to-Analog	1
		3.5 Audio Cable Y Splitter, 1 Female, 2 Male	1
FA10B-4	CPN17327	Secure Audio Diode, USB-to-Analog	1
		3.5 Audio Cable Y Splitter, 1 Female, 2 Male	1
FA10AO-4	CPN18098	Secure Audio Diode, Always Open, Analog-to-Analog	1
		3.5 Audio Cable Y Splitter, 1 Female, 2 Male	1
FA10BO-4	CPN18097	Secure Audio Diode, Always Open, USB-to-Analog	1
		3.5 Audio Cable Y Splitter, 1 Female, 2 Male	1



**FA10A-4**  
Secure Audio Diode,  
Analog-to-Analog



**FA10B-4**  
Secure Audio Diode,  
USB-to-Analog



**FA10AO-4**  
Secure Audio Diode, Always Open,  
Analog-to-Analog



**FA10BO-4**  
Secure Audio Diode, Always Open,  
USB-to-Analog