



HSL's AUDIO DIODE PRODUCT LINE

High Sec Lab's Audio Diode mitigates the risks of eavesdropping when using peripheral audio devices.



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The Threat of Using Audio Peripherals

Attackers can take control of an audio device to:

- Listen in to classified or sensitive conversations in secure rooms
- Transfer data from secure to unsecured networks

The new HSL Audio Diode family of products connects between a source (a PC usually) and an audio device (speaker/ headphone or microphone). The Audio Diode prevents attackers from exploiting audio-data leakage.

Unidirectional Flow

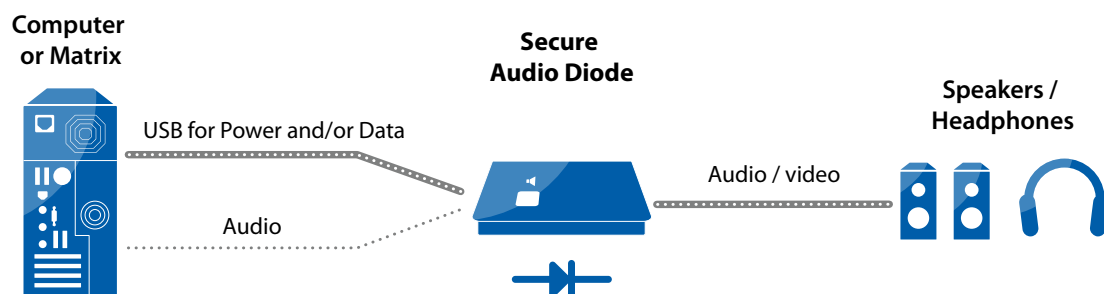
The Audio Diode functions as a diode that forces audio signals from a PC to be unidirectional. This prevents hackers from manipulating a speaker/headphone to function as a microphone, for picking up surrounding conversations. On some models, a microphone is also enabled.

Low-Pass Filter

All sounds passing through the Audio Diode go 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.

Push-Button Control

- Has push buttons to activate the speaker/headphone.
- Can be configured (for example, to set how long the speaker remains open when conducting a Skype call). If needed, can be extended by re-pressing at end of the set period, to continue the conversation
- Uses a bi-color (green and red) LED to show ON/OFF status. The LED also flickers before disconnection
- Detects a press-and-release as a single event, to prevent pressing and holding the button nonstop



HSL Secure Audio Diode System Diagram



PRODUCT HIGHLIGHTS

- **Prevents hackers from taking advantage of audio data leakage**

The diode blocks listening in to surrounding conversations, by forcing unidirectional flow. It uses a low-pass filter to block high frequency signal attacks. It has push buttons to switch off access while users are away.

- **Small size**

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

- **Easy to install and operate**

Quickly connects to the host PC and audio device. Users only need to click on the push button(s) to run it.

SPECIFICATION

MODEL NUMBER	FA10AO-4	FA10A-4	FA10BO-4	FA10B-4
FEATURES				
Input Interface (Host)	Analog	Analog	USB	USB
Output Interface (Audio Device)	Analog	Analog	Analog	Analog
Always Open	✓	✗	✓	✗
PHYSICAL				
Dimensions	85 (W) x 65 (D) x 34 (H) mm / 3.1 (W) x 3.1 (D) x 2.4 (H) inch			
Weight	185 gr (0.41 lbs.)			
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 10,000 ft			
GENERAL INFO				
Made In	ISRAEL/USA			
Product Life-cycle	10 years			
Warranty	2 Years			



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