

HSL's AUDIO DIODE PRODUCT LINE

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

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.

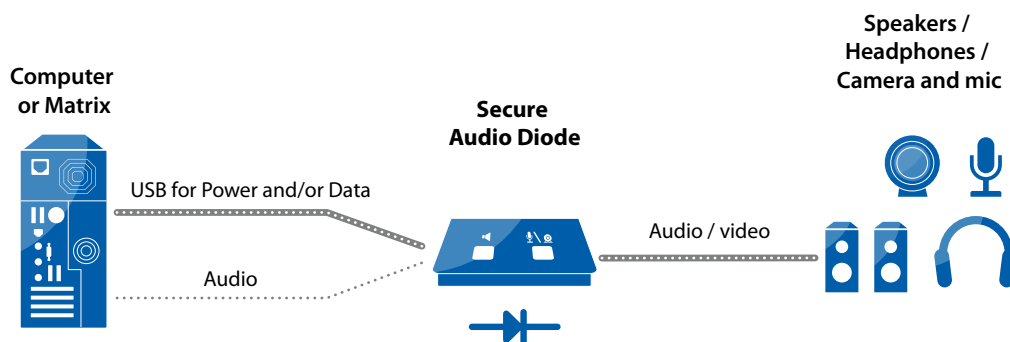
NOTE: When a microphone is enabled, it does not change the unidirectional flow restriction on the product in any way. Also, the microphone is only enabled via the push-button control.

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 and microphone (for models that do not support a microphone, this button does not exist)
- 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	FA10A-4	FA10B-4	FA10AM-4	FA10BM-4	FA10AO-4	FA10BO-4	FA10AC-4	FA10BC-4	FA10BB-4
FEATURES									
Input Interface (Host)	Analog	USB	Analog	USB	Analog	USB	Analog	USB	USB
Output Interface (Audio Device)	Analog	Analog	Analog	Analog	Analog	Analog	Analog	Analog	Analog
Microphone Support	✗	✗	✓	✓	✗	✗	✓	✓	✓
Always Open	✗	✗	✗	✗	✓	✓	✗	✗	✗
USB output for camera	✗	✗	✗	✗	✗	✗	✓	✓	✗
USB output for Headset	✗	✗	✗	✗	✗	✗	✗	✗	✓
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								
Product Life-cycle	10 years								
Warranty	2 Years								

