

SECURE VIDEOBAR DIODE

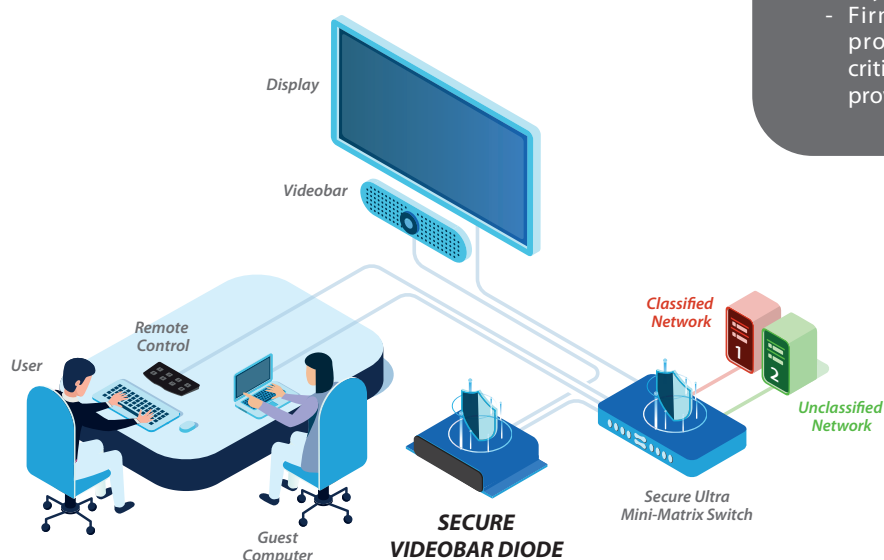
Eliminate the threat of eavesdropping and data breaches when sharing a videobar across multiple networks.

THREATS OF USING VIDEOBARS

- Videobars can be exploited to eavesdrop on classified and sensitive conversations even when not active.
- Videobar memory can be exploited to transfer data between network resources.
- The camera and/or microphone can inadvertently leak conversations when left on.
- Speakers can be repurposed as microphones to leak conversations.
- Speakers can be used for high-frequency data transmissions.

PRODUCT HIGHLIGHTS

- **Secure Operation**
 - The Videobar Diode enforces unidirectional data flow, making it impossible to use a videobar as a listening device or an intermediary for data transfers.
- **Easy to Install and Operate**
 - The Videobar Diode does not require any software drivers to operate; simply connect the diode to the videobar and host PC.
- **Supply Chain Assurances**
 - All components are sourced from a secure supply chain.
 - The Videobar Diode is TAA/BAA compliant.



SECURITY FEATURES

- **Data Transfer Security**
 - Sophisticated device emulation technology ensures there is never a direct connection between the peripherals and the host.
 - Emulators meticulously filter inputs, processing only audio and video signals and rejecting all other data types.
 - Incoming audio and video data is filtered, isolated and routed through separate, dedicated channels.
 - Data diodes then enforce a unidirectional data flow for each channel, absolutely preventing any return signals.
 - A low-pass filter restricts audio to the range the human ear can hear, preventing hackers from sending inaudible high-frequency signals to external hacking devices.
 - The isolated channels are then seamlessly re-merged by the corresponding emulator, delivering a coherent signal with no perceived interruption.
 - Data channels are normally closed, requiring explicit operator activation via a dedicated button, and automatically close again after a configurable duration.
- **Audio Security**
 - Prevents sending high-frequency signals with a built-in low-pass filter.
 - Prevents eavesdropping and line-in re-tasking by blocking speaker-to-computer communication.
- **Firmware Anti-Tampering**
 - There is no access to the product's firmware or memory through any port.
 - Firmware is permanently stored on a non-reprogrammable Read Only Memory (ROM) to prevent any modification.
 - Firmware integrity is verified through a self-test procedure during power-up. Upon detection of a critical failure, the device disables normal operation and provides a clear visual indication of failure.



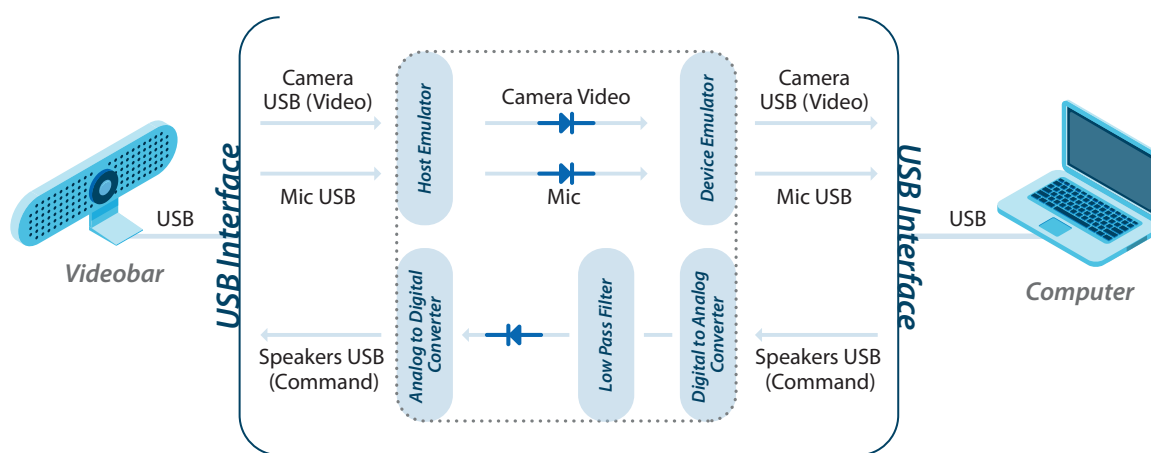
OPERATIONAL FEATURES

- **RS-232 Compatible**
 - The Videobar Diode can be controlled by any RS-232 remote control device.
- **Push-button Controls**
 - The video and audio channels are closed by default. They can be opened and closed manually via a push button with a colored light indicating the open/closed state of the channels.
- **Configurable Time-outs and Extensions**
 - An automatic time-out disconnects the audio and video channels after a configurable amount of time, preventing channels from being left open accidentally.
 - The Diode will send visual and audio indications of an upcoming time-out.
 - Pressing the push-button before a time-out will extend the time to disconnect.
 - The amount of time before a time-out, the warning time before a time-out, and the number of allowed extensions are fully configurable by the user.

SPECIFICATION

PART NUMBER	FS11USB2
FEATURES	
Input Interface (Host)	USB 2.0 Type B
Output Interface (Videobar)	USB 2.0 Type C
Remote Control Unit Port	4-pin RS-232 Terminal Block
Configuration Port	Micro USB
PHYSICAL	
Dimensions	104x28x140mm / 4.1x1.1x5.5in
Weight	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
Operating Humidity	20% to 80% non-condensing
Storage Humidity	10% to 90% non-condensing
Altitude	0 to 10,000 ft
POWER	
Power Requirements	12VDC 1.5A
AC Input	100 to 240V AC
Power Source	External AC/DC power supply, included
GENERAL INFO	
Manufactured	TAA and BAA Compliant
Product Life-Cycle	10 Years
Warranty	2 Years

ORDERING INFORMATION	FS11USB2
Model Number	FS11USB2
Part Number	CPN35322



Videobar Diode Internal Process

