



# KRAMER

## HSA210

HighSecLabs Secure Headphone Diode

---

HSA210 is the world's first anti-eavesdropping device from headphones connected to your computer. It secures the stereo analog audio output stream to prevent all known methods of audio output channel attacks for remote eavesdropping

### FEATURES

---

**Secure Headphone Diode** - Prevents audio stream from headphones from flowing back to the computer audio jack. The only effective means to protect from remote eavesdropping through connected headphones configured as microphones

**Crystal Clear Audio Quality** - Active diode circuitry assures that audio passing in the right direction is not distorted or attenuated. Security features do not negatively affect audio quality

**Malicious Connection Detection** - Detects and prevents connection attempts to the microphone by the user or by audio CODEC driver manipulation

**Active Anti-Tampering** - Battery backed active anti-tampering system prevents in-transit tampering  
**No USB Interface**

**Prevents Unsecured USB Audio**

**Highest Security by Design** - Patented design offers the world's first and only audio security device that prevents malicious audio attacks

**Easy Integration** - Supports a wide range of HighSecLabs security products, including secure KVM switches, matrices, secure KMs, and more

**Supports 4-64 Ohm Headsets**



# KRAMER

## TECHNICAL SPECIFICATIONS

---

OUTPUTS:	1 3.5mm mini jack for unbalanced stereo audio, 1 USB-A connector for power
COMPUTER PORTS:	1 3.5mm mini plug for unbalanced stereo audio or line output, 1 USB-B connector
CONTROLS:	Self-test push-button with LED for self-test (green) and tampering (red) indications
SECURITY FEATURES:	Independent/isolated micro-controller, analog audio data diode circuitry to prevent using headphones as dynamic microphones, detects connection of plug inserted into a microphone or headphones jack with changed role, holographic tampering-evident labels, active battery backed anti-tampering system to prevent physical tampering
AUDIO FREQUENCY RESPONSE:	100-20,000Hz
DIODE REVERSE-FLOW ATTENUATION:	32 ± 4dB
S/N RATIO:	More than 52dB
SUPPORTED AUDIO CARDS:	All AC'97 CODECs on-board or cards, HD audio CODECs. Professional PCI cards and multi-channel sound cards are not supported
POWER REQUIREMENTS:	5V DC, 0.2A max
OPERATING TEMPERATURE:	0° to +40°C (32° to 104°F)
STORAGE TEMPERATURE:	-20° to +60°C (-4° to 140°F)
OPERATING HUMIDITY:	20% to 80%, RH non-condensing
STORAGE HUMIDITY:	10% to 90%, RH non-condensing
ALTITUDE:	0 to 10,000 ft
SECURITY CERTIFICATION:	CE, UL and cUL, Safety BSEN60950 / EN60950
PRODUCT LIFE-CYCLE:	10 years