

SECURA A/V over IP

IP Distribution Node/Endpoint
Realtime Lossless Video
AES-256 Encryption
4K HDMI 2.0

The PESA Secura family of secure video distribution products were designed with military-grade security in mind. Secura audio/video over IP (A/V over IP) endpoints or nodes provide secure carriage of HDMI 2.0 video and audio, simultaneously supporting multiple video formats with up to 4K UHD resolutions. PESA's A/V over IP solutions utilize Arista enterprise COTS (Commercial Off-The-Shelf) network switches to provide exceptional scaling, reliability and security. The PESA Secura A/V over IP endpoint or node uses fixed-key AES-256 encryption to ensure that only the intended recipients can decrypt and access the media. With Security being our primary objective, it is no wonder why more military, government and corporations choose PESA for critical command and control (C2) environments.

FEATURES



AES-256 static key encryption



1 GB/s payloads using JPEG light compression for extremely low latency (< 15ms)



Secura Command Center for IP configuration, control and endpoint management



HDMI audio including Dolby and others

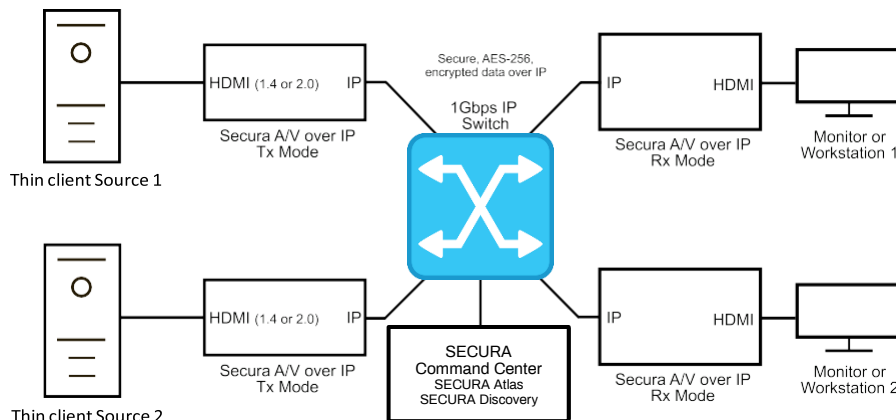


Integrates with fiber or copper COTS network switches via SFP+



Video scaling

TYPICAL A/V OVER IP SYSTEM



multiple levels, multiple formats – one secure system

Specifications

A/V Connectivity	HDMI 2.0, compliant with HDCP 1.4/2.2
Video Format	All resolutions and frame rates up to 4096 x 2160 at 60fps 8-bit, 10-bit and 12-bit, 4:4:4, 4:2:2 and 4:2:0 HDR10 and HLG
Max Video Format	UHD 4K60 4:4:4
Video Codec	JPEG 2000 (TR-01)
Video Processing	Upscaler/downscaler in receiver
Audio	HDMI audio or front panel analog audio via 3.5 mm jack
Latency	15ms end-to-end (encoder + decoder)
Security	AES-256 fixed-key encryption
Clock Synchronization	Precision Time Protocol (PTP) IEEE 1588-2008, slave/master (not required)
Network Protocols	NMOS, mDNS, IGMP, TCP/IP, ARP

Configuration

Network-based	Web-based configuration management (GUI) JSON API over WebSocket, Secura Command Center software
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Interfaces

Audio/Video	HDMI 2.0 Input (encoder only) HDMI 2.0 Output (decoder only) 3.5mm jack (TRS) analog audio input (encoder only), and output (decoder only)
Network	1Gb Ethernet RJ45 and 10G Ethernet SFP+

Other specifications

Temperature	Operating: 0° C to +55° C
Dimensions (L x W x H)	200 x 116 x 23 mm (7.9 x 4.6 x 0.9 in)
Power Supply	12V DC power connector
Power over Ethernet	PoE+ (IEEE 802.3at)
Power Consumption	15W typical

Flexible network routing for video and audio

Secura A/V over IP modules are available as transmitter or receiver nodes or endpoints, and any module can be configured as either a transmitter or receiver using Secura Command Center.

- Each transmitter encrypts video and audio from the host for secure encoded transport over an Ethernet infrastructure
- Each designated receiver with the corresponding and appropriate key receives the video and/or audio across the Ethernet infrastructure and decrypts the video and/or audio accordingly

Secure and reliable audio & video transmission

Video and audio between the transceivers and receivers is protected with AES-256 fixed key encryption for protection of sensitive information.



Analog audio embedding/de-embedding

Embed an external analog audio to replace original HDMI audio, if desired. Output audio over HDMI video or de-embed HDMI audio to a rear panel audio connector.



Power over Ethernet

Using Secura A/V over IP's Power-over-Ethernet (PoE+) feature, networking communication and operating power can be provided over a single Cat_x Ethernet cable. Secura KVM is compliant with PoE+ standard IEEE 802.3at. An external power supply can also be added for power redundancy.



AES 256 encryption with dynamic keys available soon

Ordering Information

Part Number	Description
SEC-IP-TX	Secura Endpoint, AVoverIP, TX, Hardware Only
SEC-IP-RX	Secura Endpoint, AVoverIP, RX, Hardware Only
SEPS-IP-TX	Software for Secura TX Endpoint, AVoIP (No USB), Per Endpoint
SEPS-IP-RX	Software for Secura RX Endpoint, AVoIP (No USB), Per Endpoint

ABOUT PESA

PESA has been a leading provider of secure professional-grade audio and video products for over 47 years. Video Distribution Systems (VDS), Routers, Signal processing devices, and Control & Management systems have all been a part of the complete PESA system portfolio. PESA continues to lead in developing innovative IP media solutions with the new Secura® brand of Media Management and secure Endpoints. Secura products ensure military-grade protection for mission critical media signals for military, government, corporate and broadcast environments. PESA proudly supports our many customers with a 24/7/365 round the clock technical support team. PESA is located in Huntsville, Alabama with regional sales offices throughout North America, China, Europe and the Middle East.

Learn more about PESA on our website at <http://www.pesa.com> and follow us on Twitter: @PESA_ONLINE and LinkedIn: PESA.

