Secured Edge Node for Wide Area Networking
High Resolution / Low Bandwidth

The PESA Motion Codec Secure Edge Software operates on Commerical off the Shelf Hardware (COTS) and dramatically lowers bandwidth requirements for transport while maintaining all of the SECURA® security capabilities. The Transmitter and Receiver can securely transport up to 4K/60p video, audio and HID devices such as Keyboard, Mouse, and CAC readers. Utilizing an H.265 motion codec running on standard CPU and GPU hardware devices significantly reduces cost and network bandwidth requirements. Secura SW can run on existing video capable PCs. No more expensive hardware dedicated codecs. It's a game changer. This codec supports degraded networks and can operate over wireless field and fixed environments. The ability to support both unicast and multicast makes this encoder the choice for multi-domain, and low bandwidth environments.

The flexibilty of SECURA® Software opens the door to smoothly transition from legacy to current requirements, and continue to support the mission into the future.

AES 256 A/V/USB Encryption

HEVC   **H.265 Motion Codec**

FIPS   **FIPS 140-3 Control mTLS 1.2**

Uses Scalable COTS Hardware

Available in 2024

DoDinAPL testing currently underway in the TSSAP lab, Please contact PESA for status

Specifications

A/V Connectivity	USB-C with HDCP 2.2 or IP Ethernet A/V; HDMI 2.0/DisplayPort 1.2 USB adapters Capture cards can also be used
Video Format	Input – Up to 4096 x 2160 at 60fps, 4:4:4, 8-bit/10-bit Output – Up to 4096 x 2160 at 60fps, 4:2:0 – MPEG and variable GOP
Video Codec	H.265 (HEVC) or H.264 (AVC) MPEG
Video Processing	Upscaler/downscaler in receiver, cropping padding, logo and text insertion
Latency	20ms end-to-end (encoder + decoder)
USB	USB 2.0 and 3.X ports allowing keyboard/mouse and CAC
Audio	Embedded audio or front panel analog audio via 3.5 mm jack
Control Plane Security	FIPS 140-3 provisional CMVP CNSA (Suite B) Crypto with Mutual TLS authenticating, Trusted Protection Module (TPM)
Data Plane Security	AES-256 fixed-key encryption for video, audio, and USB
Network Protocols	IGMP, TCP/IP
Video HW	GPU
Controller	CPU (AMD64)

Interfaces

Audio/Video	IP input/output using RTP/RTSP/TS or other IP video USB-C with Adapter for HDMI 2.0, Display Port 1.2, and SDI or PCIe capture card
Network	1 Gb Ethernet RJ45 and 10G Ethernet SFP+ with NIC

Physical Properties

Temperature	Operating : 0º to +70º C
Dimensions **(L x W x H)**	200 x 116 x 23 mm (7.9 x 4.6 x 0.9 in)
Power Supply	19V DC power connector
Power Consumption	25W nominal

PESA

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