WIRELESS SURVEILLANCE
EDGEVIS HD-IP450

REAL-TIME HD SURVEILLANCE STREAMING AND EIGHT-CHANNEL NVR

The HD-IP450 video streaming and archiving unit delivers usable video and audio over a range of bearers, including low/variable bandwidth networks.

With its unique TVI technology and connections for up to eight IP cameras, the HD-IP450 combines real-time streaming with secure edge recording.

Not all wireless video solutions are created equal

The TVI surveillance distribution platform is a world-class solution for streaming and accessing video over low or variable bandwidth networks. In comparison to other video-encoding technologies, such as H.264 or MPEG, TVI provides a higher quality, lower latency and more resilient approach to real-time video and audio transmission. TVI combines a proprietary video codec and an ultra-efficient, adaptive approach to managing the underlying network bearer. This results in significantly more usable live video.

The HD-IP450 combines the flexibility of IP cameras with a local eight-channel NVR, providing real-time streaming of HD video and simultaneous access to up to eight channels in 'quad view' mode. It is designed to work with leading IP cameras, including Axis, Bosch and Canon, with Power-over-Ethernet (PoE) for simple deployment. With its ability to exploit a range of network bearers, from an inbuilt 4G LTE modem to Mesh Radio, the HD-IP450 delivers a true 'surveillance anywhere' capability.

Practical operational benefits

From its origins in mission-critical surveillance, TVI is now the platform of choice for a growing range of surveillance applications, from mobile operations to rapid deployment cameras and cloud-based video surveillance as a service (VSaaS) installations. It was developed from the outset to provide seamless access to video and audio from almost any location, with distribution to mobile devices as well as control rooms. Its ability to stream over cellular, Wi-Fi and wired networks means cameras can be deployed quickly without the need for specialist infrastructure.

By combining local recording, remote access and video from PoE IP cameras, the HD-IP450 presents the operator with a real-time surveillance picture – and the ability to access 'full res' camera imagery as situations require. This includes areas or frames of interest from real-time and archived footage. The TVI platform offers an exceptional level of control over network utilisation, with the ability to set maximum bandwidth remotely to control data costs.

Product codes

HD-IP450	Real-time streaming unit with local recording up to eight channels

Key features

- Supports eight IP camera inputs with single-channel HD streaming and 'quad-view' four-channel streaming view
- Ultra-resilient real-time video and audio streaming over low or variable bandwidths (9Kbps to 2Mbps)
- Local NVR records eight channels in H.264 format to a maximum resolution of 1080p
- Removable HDD/SDD with Fragile Watermarking and capacity to record up to 31 days across 4 channels
- Built-in 4G cellular modem (GPRS/EDGE/UMTS/HSPA+/LTE) and Wi-Fi connectivity
- High-quality vibration-resistant and heat-dissipating fanless enclosure for reliable vehicle-based operation
- Simple web-based configuration of cameras and NVR with remote control of streaming/recording settings
- Can generate alarms and trigger recording using industry-leading video analytics (optional extra)

Operational domains and installed base

TVI technology is deployed by organisations in the law enforcement, military and transportation domains, as well as by those responsible for securing public spaces. With its range of hardware and software devices, TVI is ideal for use in a variety of static and dynamic operating scenarios:

- Vehicle-based and mobile operations
- Transportation surveillance
- Rapidly deployed surveillance installations

Vibration-resistant, fanless design makes it suitable for transportation applications

HD-IP450 is designed around the class-leading TVI platform for assured, operationally effective surveillance distribution

SAFER.
STRONGER.
MORE SECURE.

TECHNICAL SPECIFICATIONS EDGEVIS HD-IP450

Video Streaming

Streaming Performance:	One camera streaming up to 1080p at 15fps, 720p at 30fps or 4-channel quad-view at 5fps
Streaming Connection:	Reliable, secure (AES-256) video transmission from 9Kbps to 2Mbps
High-resolution Image Retrieval:	Up to 1080p over user-definable areas via high quality JPEG

Alarms

Video Analytics:	1-channel, sterile-zone video analytics provided by SafeZone-2D (optional extra)

Recording

Recording performance:	Up to a maximum of eight channels at 1080p at 25/30fps in H.264 format
Security:	Recordings are secured with AES-256 encryption and Fragile Digital Watermarking
Storage Medium:	Removable 2.5" HDD/SSD drive or external USB Disk
Typical recording duration:	Approx. 9 days on 1TB SSD recording at 10fps at 3Mbps for 4 cameras

Connectivity

Cellular:	Built-in 4G/LTE module
Wi-Fi:	Built-in 2.4GHz 802.11 b/g/n module
LAN:	Supports transmission over LAN, ADSL, SatCom or Mesh Network
GPS:	Built-in GPS module

Camera Inputs

Video Input Format:	8-channel IP video input H.264 up to 1080p resolution up to 30 fps
Audio Input Format:	Via IP camera – dependent on camera models chosen
PTZ Connectivity:	Via IP camera – dependent on camera models chosen
Camera Interoperability:	Major manufacturers including Axis, Bosch, Canon, ONVIF (others on request)

Physical Connectors

LAN Input:	4 x RJ45 with Class 0 PoE (15.4W IEEE 802.3af), 1 x USB Ethernet Adapter
Cellular Antenna:	2 x SMA (3G/4G and MiMo) 50Ω female
Cellular SIM:	1 x standard SIM carrier, network agnostic (accessible externally)
GPS Antenna:	1 x SMA 50Ω female
Wi-Fi Antenna:	1 x SMA 50Ω RP-female
Alarm Input:	26 pin MIO (multiple input/output) connector for up to four simple contact alarms
Power (Remote On/Off):	1 x 3-pin terminal block DC socket (with ignition delay on/off control)
USB Ports:	4 x USB 2.0 Type A
Monitor Output:	1 x HDMI, 1 x DVI-D, 1 x VGA (for accessing local configuration menu e.g. software upgrades)
External Power (DC Output):	2-pin terminal block (12V DC, max 1A)

Physical Characteristics

Physical Size:	L 274mm x W 188mm x H 90mm (L 10.78" x W 7.4" x H 3.54")
Operating Temp/Humidity:	-20°C to +55°C (-4°F to 131°F) 10% to 98% relative humidity
Weight:	4kg (8.82 pounds)
Input Voltage Range:	9-36V DC (75W PSU supplied, other options available)
Power Consumption:	45W max (at 12V), 22.5W idle operation, excluding PoE camera load
Enclosure:	IP30 vehicle-mount fanless design (MIL-STD-810G vibration and shock), suspension kit built-in

Software Architecture

Video Distribution:	EdgeVis Server provides multi-viewer video distribution, using a granular user-permission system
EdgeVis Viewers Supported:	EdgeVis Client (iOS, Android, Windows). Control Center and TVI Viewer operate in compatibility mode
Third-party VMS Integration:	Integration into VMS provided via ONVIF Gateway or native integration (e.g. Milestone, Airship)

Ratings and Regulatory Approvals

E-Mark:	ISO7637-2 level III
CE/FCC:	47CFR:2011 Part 15, Sub Part B

Digital Barriers

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E&OE. Specifications subject to change without notice.

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