

Wireless Surveillance

TVI HDS600

High definition real-time surveillance streaming and edge recording



Digital Barriers

The TVI HDS600 video streaming unit delivers high-quality, usable HD video and stereo audio over a range of bearers, including low/variable bandwidth networks. With its unique TVI technology and plug and play simplicity, HDS600 combines the clarity of HD with the power of the TVI surveillance distribution platform.

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 far more usable live video.

The introduction of the HDS600 encoder and inbuilt DVR brings the power of HD video to the TVI platform, with the simplicity of the 'plug and play' HD-SDI interface. With its compact form factor, low power operation and secure end-to-end encryption, HDS600 represents the ultimate next-generation edge transmission system for capturing and distributing mission-critical surveillance, exploiting a number of comms bearers including cellular networks.

Practical operational benefits

From its origins in the UK surveillance community, TVI is now the proven platform of choice for covert surveillance operations worldwide. It was developed from the outset to deliver usable video and audio in real world conditions, without the need to deploy specialist infrastructure.

TVI combines resilient real-time streaming, low power requirements, low latency and inbuilt security features to meet the needs of surveillance operatives. TVI ensures a more efficient representation of detail at lower network bandwidths, particularly where motion levels are high, as well as very low latency in remote PTZ control of cameras. This ensures reliable, responsive surveillance gathering in real world conditions – including mobile operations.

TVI also includes a high-resolution enhancement function, allowing remote retrieval of detail in frames and areas of interest. Whilst using this function, the operator is also able to view the real-time video stream – and thereby ensuring that situational awareness is not compromised.

Product codes

TVI-HDS600 Small form factor HD real-time streaming and recording unit

Key features

- Secure live video streaming up to 1080p HD from an HD-SDI camera - with second SD camera input
- Dual independent audio coding at line level and mic level to ensure complete evidential integrity
- Built-in 4G LTE cellular modem and 802.11b/g/n Wi-Fi module for streaming at 9Kbps up to 1Mbps
- Remote 10/100 RJ45 Ethernet to connect to external communications bearers (such as satellite or ADSL)
- Dual micro-SD cards for local archiving (in H.264 format) at a maximum resolution of 1080p (at 30fps)
- Local 10/100 RJ45 Ethernet for ONVIF compatible edge-recording (in H.264 format) and local viewing
- Compact enclosure with no moving parts for rapid deployment and reliable and silent operation
- Web based (remote) config and control, with output to ONVIF VMS/HDMI (via decoder) and TVI Server

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. TVI is ideally suited to static and dynamic operating scenarios:

- Covert and tactical surveillance operations
- Rapidly deployed surveillance cameras
- Wire-free fixed surveillance installations



Full HD 1080p real-time streaming and recording



HD-SDI is the ultimate video solution for organisations that rely on high-quality, high-definition, reliable video feeds

HDS-600 is designed around the class-leading TVI platform for assured, operationally effective surveillance distribution

Hardware

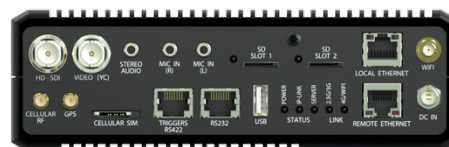
Physical Size:	L185mm x W140mm x D57mm L7¼" x W5½ x D2¼ (including connectors)
Operating Temp/Humidity:	-35°C to +50°C -30°F to 140°C, 10% to 98% relative humidity
Input Voltage:	9V-30V DC, internal reverse and overvoltage protection
Power Consumption:	4.5W @ 12V (min) to 18W @ 12V (max)
Ingress Rating:	IP40
Video Input Format:	1 x HD-SDI (1080p), 1 x composite video input (PAL/NTSC)
Audio:	1 x stereo audio input (dual line level), 2 x audio input (mic level with mic bias)
Recording:	Up to a maximum of 1920 x 1080p at 30 fps in H.264 format on 2 x removable SD cards (with a current maximum capacity of 64GB per slot), or local NVR/NAS via Ethernet out
Status LEDs:	Provide information on power, IP connection to TVI Server, cellular network, SD recording

Software

Viewers Supported:	HDMI (via TVI Decoder), ONVIF Profile 'S' compatible VMS (via TVI Decoder and local Ethernet), TVI Control Center (Windows PC) and TVI Mobile Viewers (Android and iOS)
Video Frame Sizes Supported:	Up to 1920 x 1080p at 30 fps (HD-SDI), up to 704 x 480 (D1) at 25/30 fps (PAL/NTSC)
High Resolution Image Retrieval:	Enhanced definition (up to 1920 x 1080) over user-definable areas via high quality JPEG

Connectors

Camera Input:	1 x HD-SDI (75 Ohm female BNC), 1 x composite video input (75 Ohm female BNC)
Audio Input:	3.5mm phono (stereo audio), 2 x 3.5mm phono (audio input mic level with mic bias)
RJ45 (link status LEDs):	1 x Ethernet connector for external router, 1 x Ethernet connector for NVR connection
Cellular Antenna (CDMA/LTE):	1 x SMA (50 Ohm female)
GPS Antenna:	1 x SMA (50 Ohm female)
Wi-Fi Antenna (2.4GHz):	1 x SMA (50 Ohm RP-female)
Cellular SIM (LTE):	1 x standard SIM carrier (non-locking)
Telemetry/Alarms:	1 x RJ45 (RS232 PTZ telemetry), 1 x RJ45 (RS422/485 alarm triggers and PTZ)
Local Archiving:	2 x Micro SD carriers
Power (DC Input):	1 x 2.5mm DC socket
Set-up/Configuration:	1 x USB type A (vertical socket)



Communications

Cellular Connectivity:	Built-in CDMA/EV-DO/GPRS/EDGE/UMTS/HSPA+/LTE module
Wi-Fi Connectivity:	Built-in module: IEEE 802.11 b/g/n at 2.4GHz band
Satellite/Internet Connectivity:	10/100 RJ45 Ethernet for connection to Inmarsat GAN/BGAN Fleet Routers
PTZ Connectivity:	Supports Pelco P&D and Sony Visca, PTZ access via TVI Viewers or ONVIF interfaces
Bandwidths Supported:	9Kbps to 1Mbps
Browsers Supported:	Chrome, Firefox, IE (config and settings for encoder, archiving, alarm triggers, ONVIF profiles)

Security

Encryption:	Built-in AES 256 encryption in addition to support for IP Sec VPN connections
Archiving:	Fragile Digital Watermarking of recordings

Ratings and Regulatory Approvals

EMC Conformity:	EN55022 and EN55025 (TBC)
FCC Compliance:	Class B Digital Device Part 15 (TBC)
Network Accreditations:	Verizon