

# WIRELESS SURVEILLANCE TVI S400

## SMALL FORM REAL-TIME WIRELESS SURVEILLANCE STREAMING

The TVI S400 real-time wireless video streaming encoder provides high-quality video/audio in a low-power, secure, discreet and easy-to-deploy unit.

With an ultra-small form factor and two built-in GPRS/3G/HSDPA modules, the S400 represents the next generation in tactical video intelligence.

### Not all wireless video solutions are created equal

TVI wireless encoders are a world-class surveillance solution for secure remote viewing of video over very low bandwidth networks. In comparison to other wireless video technologies, such as MPEG compression, TVI provides a higher quality, lower latency and more resilient approach to real-time video and audio transmission.

MPEG and H.264 solutions rely on standard compression techniques that can result in reduced frame rates, frame skipping and difference coding. In contrast, by combining a proprietary codec with an adaptive and more efficient approach to managing the underlying communications channel, TVI is able to maintain a fixed frame rate and deliver lower latency video over constrained bandwidths.

### Practical operational benefits

TVI ensures a more efficient representation of detail at lower bandwidths, particularly where motion levels are high, as well as exceptionally low latency in the remote control of cameras. Error resilience is also particularly high, since the TVI codec is more tolerant of packet loss.

With secure AES 256 encryption, an ultra-compact form factor, low power consumption (5.5 watts nominal to 1.5 watts in standby mode and 0.1 in sleep mode) and the flexibility to operate over GPRS, 3G and satellite networks, as well as tactical IP radios and the internet, TVI can be rapidly deployed into a range of environments and situations. The S400 includes two built-in GPRS/3G/HSDPA modules for reliable networking and is network agnostic.

Multiple operators are able to view live streaming video and the unit also supports retrieval of high-resolution images with simultaneous streaming of video, providing access to frames of particular interest.

### Product codes

TVI-S400 Ultra-small form factor wireless video encoder

### Key features

- Ultra-lightweight, compact enclosure with no moving parts for reliable, resilient and silent operation
- Secure live video and audio (two-way) transmission over very low bandwidth (supports 9Kbps to 1Mbps)
- Rapidly deployable (in minutes) for operational situations where installation time is critical
- Constructed to accommodate the high level of vibration associated with vehicle deployment
- Features two integrated GPRS/3G/HSDPA modules (with SIM carriers) for reliable networking
- Changes to codec settings or software upgrades can be delivered remotely over the air
- 10/100 RJ45 Ethernet connector for ADSL and network lines and satellite connectivity

### Operational domains and installed base

TVI codecs are deployed by organisations in the law enforcement, military and transportation domains, as well as by those responsible for securing public spaces. Its ultra-compact form factor and simple installation make it ideal for a range of static and dynamic operating scenarios:

- Covert surveillance operations (video and/or audio)
- Body-worn surveillance
- Rapid deployment tactical surveillance



# TECHNICAL SPECIFICATIONS TVI S400

V2- 080917  
DS-WS-S4

## Video Streaming

Streaming Performance: One camera streaming up to CIF at 25fps, 2CIF at 12.5fps or 4CIF at 5fps  
Streaming Connection: Reliable, secure (AES-256) video transmission from 9Kbps to 1Mbps  
High-resolution Image Retrieval: Enhanced definition (up to 704 x 576) over user-definable areas via high quality JPEG

## Recording

Recording options: Integration support for various third-party DVRs including Timespace and Ovation models

## Connectivity

Cellular: 2 x GPRS/EDGE/UMTS/HSDPA modules  
LAN: Supports transmission over LAN, ADSL, SatCom or Mesh Network  
GPS: Support for external RS232/USB GPS module

## Camera Inputs

Video Input Format: 2 x standard-definition MCX connectors (PAL/NTSC)  
Audio Input Format: Line-level stereo audio input  
PTZ Connectivity: Supports common protocols including Pelco P&D and Sony Visca (other protocols on request)

## Physical Connectors

LAN Input: 1 x RJ45  
Cellular Antenna: 2 x MMCX antenna 50Ω  
Cellular SIM: 2 x standard SIM carrier, network agnostic  
Power (DC Input): 1 x 2-pin 12V DC socket  
Serial/Trigger: 1 x 20-pin terminal connection, supporting RS232/422/485 and three simple contact alarms  
Video: 2 x 75Ω MCX  
Audio, Camera Power: 1 x 10-pin terminal connection, supporting stereo audio, audio power (5V, 250mA), camera power (12V, 200mA)  
USB Ports: 1 x Mini-USB 2.0 Type AB

## Physical Characteristics

Physical Size: L 120mm x W 72mm x D 33mm (L 4.7" x W 2.8" x H 1.3")  
Operating Temp/Humidity: -32°C to +50°C (-25°F to 120°F) 10% to 98% relative humidity  
Weight: 400g (0.9pounds)  
Input Voltage Range: 9-36V DC (power supply included)  
Power Consumption: 10W max (at 12V, using two modems), 8.5W max (one modem), 5.5W idle operation  
Enclosure: IP40 heat-dissipating, fan-less aluminium design

## 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 VMS Gateway or native integration (e.g. Milestone, Airship)

## Regulatory Approvals

EU Low Voltage Directive: 2006/95/EEC for product safety  
EMC Conformity: Directive 89/336/EEC  
FCC Compliance: 47CFR:2011 Part 15, Sub Part B

\*The S400 is also compatible with systems still utilising the legacy TVI Server architecture

**EDGEVIS™ Live**  
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