

TVI C300



The TVI C300 video encoder has been specifically designed to meet the exacting requirements of our customers.

The compact, low power unit enables high quality real-time, low latency video to be viewed over narrow bandwidth networks including GPRS and 3G telecoms networks, satellite networks, tactical IP radios and the Internet with quality, reliability and usability unmatched by standards based products.

At the heart of the system is the secure server application, enabling multiple encoders and viewers to work together securely and seamlessly to create a fully scalable architecture. Using wireless technology the system can be deployed in minutes avoiding the delays and costs associated with installing fixed line communications. The system provides access to video feeds by decision makers anywhere without the need for fixed infrastructure. Video streams can also be played on wireless devices such as PDAs while maintaining exceptional clarity, and full PTZ control of cameras at the viewer end gives the system maximum flexibility.

With user definable frame rates and frame sizes, the TVI video encoder can be configured to match your specific operational requirements. Where bandwidth is fundamentally limited, Hawkeye technology offers the only useable solution to live video transmission with high quality, real-time video.

KEY POINTS

- **Lightweight, compact enclosure with no moving parts for reliable, silent operation**
- **True real-time video over narrow bandwidths – operates at 9 Kbps to 1 Mbps**
- **Maintains constant frame rate without exceeding bandwidth limits**
- **Low latency for accurate PTZ control**
- **Integrated GPRS / 3G / HSDPA module for reliable networking**
- **Supports two way audio**
- **High Resolution Image Retrieval with simultaneous streaming of video**
- **Low power requirement - nominal 6 watts, 0.1 watt sleep mode**
- **Wide operational temperature range -32° to +60°, non-condensing**
- **Multiple viewers in different locations can view live video streams simultaneously**



TVI C300



KEY POINTS

• Form factor

The unit is designed to be as light and compact as possible, with no moving parts for silent operation. Small enough to be easily portable, the unit is constructed to accommodate the high level of vibration associated with vehicle deployment.

• Communications

The unit comes complete with a built-in GPRS / 3G / HSDPA module with lockable SIM carrier. The system is network agnostic, so there are no restrictions on which network you can use.

In addition to standard LAN and ADSL, Satellite connectivity for Inmarsat GAN/BGAN Fleet Routers is also available via the RJ45 Ethernet connector.

• Configuration

The unit is configured via USB key pen, and subsequent configuration or upgrades can be applied remotely. A useful feature of the software ensures that the previous configuration is always stored locally and is therefore available should configuration update fail for any reason.

• Power

One of the key features of the unit is low power, with a nominal figure of 5.5 watts. This will reduce further when using lower frame rates.

An additional feature of the system is a standby mode, sub 1.5 watts, plus a sleep mode effectively reducing the power requirement to 0.1 watt when not actively in use. The unit can be set to wake up after a pre-defined interval or can be woken by an external trigger.

• Archiving

The unit can be fully integrated with a standard DVR. This will allow multiple video inputs to be archived to the DVR, with the archived video accessible for viewing remotely using our specific viewer software.

TVI C300 TECHNICAL SPECIFICATION

Hardware

Physical Size: L 195mm x W 148mm x D 37mm*, Weight 700g	Camera Input: 1 x BNC composite input
Operating Temperature: -32° to +60°, non-condensing	Video Input Format: PAL / NTSC / SECAM
Audio: Stereo Audio In / Stereo Audio Out	1 Alarm Input: Triggers at 5V (24V max)
Input Voltage: 9V-36V DC	Power Consumption: 7W max without modem 8.5W max with modem fully operational. 5.5W nominal <1.5W Standby mode <0.1W Sleep mode

*Dimensions include connectors

Front Panel Connectors



USB Configuration of the unit is via USB. The USB connector also allows connection to serial based devices	LEDs Status LEDs provide information on start up and configuration.
RJ45 RJ45 Ethernet connector for ADSL and network lines.	SIM Lockable SIM carrier. As the system is essentially network agnostic, there is no restriction on the network that can be used.

Rear Panel Connectors



Video Input Standard BNC connector that accepts PAL, NTSC and SECAM video sources.	RS422 / Trigger Provides RS422 for control of cameras or other devices. A trigger input provides wake up from sleep or alarm reporting
Audio This connector allows for two way audio. One way audio will be supported with first release software.	RS232 Provides RS232 serial for control of cameras or other devices
Power The connector is provided to support vehicle or battery operation.	RF Aerial This is the RF aerial for the internal GPRS / 3G/ HSDPA module.

TVI C300 TECHNICAL SPECIFICATION

Communications

Internet Connectivity: 10/100 RJ45 Ethernet connector for ADSL and network lines	PTZ Connectivity: Camera can be controlled via RS232 or RS485. Currently supports Pelco P&D, Canon VC-C4/5, Sony Visca, David Horn. Other protocols may be integrated on request.
GPRS / 3G / HSDPA Connectivity: Built in GPRS / 3G / HSDPA module	Bandwidths Supported: 9Kbps to 1Mbps
Satellite Connectivity: 10/100 RJ45 Ethernet for Inmarsat GAN/BGAN/ Fleet Routers	

Software

Viewers Supported: Software available for Windows PC, and Windows Mobile 5/6	Encryption: Built in AES 256 encryption in addition to support for IP Sec VPN connections.
Video Frame Sizes Supported: From 128 x 96 up to 352 x 288 (CIF) at frame rates of 0.1 to 25fps (PAL)	Minimum Server Specification: 2GHz Processor, Windows Server 2003 or Linux preferred, 512mb RAM, Sun Java JRE 1.5.0 or later
High Resolution Image Retrieval: Enhanced definition (up to 704 x 576) over user-definable areas via high quality JPEG	



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