

NET5301T Video Encoder

DUAL-STREAM, NTSC/PAL



Product Features

- Two Simultaneous MPEG-4 Video Streams
- Up to 30 High Quality (4CIF) Images per Second per Stream
- Video, Audio, and Data over IP Network
- Simultaneously View Video on a Computer User Interface, Console User Interface, and Video Decoder
- Adaptive Deinterlacing Technology
- Three Programmable Alarm Inputs (Supervised or Unsupervised), One Relay Output
- Two Security Modes
- Video Loss Indicator
- Bidirectional Audio Support



- PTZ Support via Pelco D (RS-422) and Coaxitron® (up-the-coax) Protocols
- Optional Wall and Rack Kits Accommodate up to 12 Units

The **NET5301T** is a high-performance, dual-stream, single-input video encoding unit. Its main function is to convert live analog video signals into dual MPEG-4 streams. It can process up to 30 high quality images per second per stream. In addition, the **NET5301T** uses motion adaptive deinterlacing technology to reduce jitter in 4CIF images.

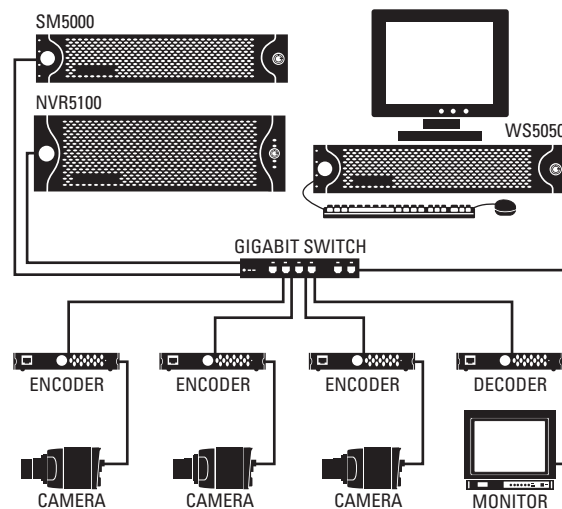
The **NET5301T** incorporates EnduraView™ video optimization technology to select the best image quality and frame rate for the target Endura™ product (decoder, workstation, console), all without affecting the system recording rate. For example, the unit selects a high rate and quality setting for recording and alarm conditions; it selects a lower rate for simple monitoring.

The **NET5301T** offers both unsecured and secured modes. The secure mode uses a proprietary key system to prevent unauthorized devices from communicating with a **NET5301T** over the Endura network.

The **NET5301T** is also designed for maximum system integration and flexibility. Each unit can be operated by either a 12 VDC or a 24 VAC power source. Each unit also supports NTSC and PAL video formats.

Use the **NET5301T** to extend audio from the system to the encoder site. The unit transmits and receives live audio across the network, letting you listen to activity in an area or speak to a person.

From any control device on the network, such as a VCD5000 Series video console display or a WS5050 Endura workstation, you can operate any dome, PTZ camera, or relay that is connected to the **NET5301T**.



IMPORTANT NOTE: PLEASE READ. The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

Endura distributed, network-based products are available only to certified dealers/integrators. Please contact your local sales representative for details on certification applications and requirements. Additional information on Endura products and certifications may be found at <http://www.pelco.com/endura>.



C061 / REVISED 10-05



International Standards
Organization Registered Firm;
ISO 9001 Quality System



TECHNICAL SPECIFICATIONS

MODEL NUMBER

NET5301T Network video server that encodes video, audio, and control data for transmission over an IP network

SUPPLIED ACCESSORIES

Mating Connectors One 16-pin, one 2-pin

SYSTEM

Processor PowerPC® 405EP
Operating System Linux®
User Interface Remote operation via WS5050 or VCD5000

VIDEO/AUDIO

Video Standards NTSC/PAL/EIA/CCIR composite
Video Coding MPEG-4
Video Streams 2, simultaneous
Video Resolutions
4CIF 704 x 480 PAL 704 x 576
2CIF 704 x 240 704 x 288
CIF 352 x 240 352 x 288
QCIF 176 x 120 176 x 144
Video Inputs/Connectors 2, BNC, looping, 75 Ω, 1 Vp-p
Video Switch Hi-Z, 75 Ω
Audio Encoding G.711 speech codec
Audio Bit Rate 64 kbps
Audio Levels
Line In/Line Out 1 Vp-p, 10 kΩ
Microphone 5 mVp-p, approximately 40 kΩ
Speaker 2.5 Vp-p, 30 mW, minimum 16 Ω
Audio Connectors Two 3.5 mm monaural
Connector Tip Signal high (input and output)
Connector Sleeve Common
Audio Inputs Microphone or line in
Audio Outputs Speaker or line out
Audio Switch Line, microphone/speaker

PTZ CONTROL

PTZ Interface RS-422, video in
PTZ Protocols Pelco D (RS-422), Coaxitron

ALARMS/RELAYS

Alarm Inputs 3, programmable, 3.3 VDC 1 kΩ, triggered; uses 6 of 16 pins on terminal block connector
Relay Output 1, form-C relay, 30 VDC, 1 A; uses 3 of 16 pins on terminal block connector

VIDEO ACTIVITY DETECTION

Zones 3 plus background zone
Zone Types Any shape, user-definable in 16 x 16 pixel blocks
Sensitivity Adjustable

AUXILIARY INTERFACES

Serial Pelco D (RS-422); uses 4 of 16 pins on terminal block connector
Terminal Block Connector 16-pin: Pelco D (RS-422), 3 alarm inputs, 1 relay output

FRONT PANEL INDICATORS/FUNCTIONS

Network Connector RJ-45, 10/100BaseT
Power Blue
Status Green, amber, red
Network Link/Speed Amber, red
Network Activity Green
Video Green, red
Configuration/Reset Recessed button, 4 states

POWER

Power Consumption 8 watts, 28 BTU/H
Power Input 12 VDC +10%/-15%
24 VAC +10%/-15%
Power Connectors
4-Pin For RK5000PS-5U or NET5301PS
2-Pin For user-supplied power supply

ENVIRONMENTAL

Operating Temperature 32° to 122°F (0° to 50°C)
Storage Temperature -40° to 149°F (-40° to 65°C)
Operating Humidity 20% to 80%, noncondensing
Maximum Humidity Gradient 10% per hour
Operating Altitude -50 ft to 10,000 ft (-16 m to 3,048 m)
Operating Vibration 0.25 G at 3 Hz to 200 Hz at a sweep rate of 0.5 octave/minute

PHYSICAL

Construction Sheet metal
Finish Gray metallic with black end caps, black matte finish
Dimension 8.75" D x 6.5" W x 1.2" H
(22.2 x 16.5 x 3.0 cm)
Mounting Desktop (feet), wall, or rack via options
Unit Weight 2.0 lb (0.9 kg)
Shipping Weight 5.0 lb (2.3 kg)

OPTIONAL MOUNTING ACCESSORIES

RK5000PS-5U Rack mount with power supply (12 units)
WM5001-4U Wall mount without power supply (1 unit)
WM5001-4UEXP Wall mount expansion (1 unit)

RECOMMENDED POWER SUPPLIES

NET5301PS Power supply for one encoder (4-pin connector)
TF2000 Power supply for one encoder (2-pin connector)
MCS Series Multiple unit power supply, indoor

CERTIFICATIONS AND REGULATIONS

- CE, Class B
- UL Listed
- UL Listed to Canadian safety standards
- FCC, Class B
- C-Tick

STANDARDS/ORGANIZATIONS

- Pelco is a member of the MPEG-4 Industry Forum
- Pelco is a member of the Universal Plug and Play (UPnP) Forum
- Pelco is a member of the Universal Serial Bus (USB) Implementers Forum
- Pelco is a contributor to the International Standards for Organization/Electrotechnical Commission (ISO/IEC) Joint Technical Committee 1 (JTC1), "Information Technology," Subcommittee 29, Working Group 11
- Compliance, ISO/IEC 14496 standard (also known as MPEG-4)
- Compliant with International Telecommunication Union (ITU) Recommendation G.711, "Pulse Code Modulation (PCM) of Voice Frequencies"



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