

i-Volution i5401-E

Extended Temperature Multi-Protocol Standalone Encoder

Impath's new i5401-E introduces advanced features within a powerful feature rich and cost effective platform. The i5401-E encoder delivers outstanding performance for advanced video surveillance applications required for combined high resolution and low resolution, full or reduced motion video. The i5401-E encodes multi-stream video using H.264, MPEG-4 and/or MJPEG compression, two serial data channels and bi-directional audio for transport over a standards-based IP network.



Applications

- Security Surveillance
 - Airports
 - Seaports
 - Military
 - Industrial Complexes
 - Unattended Sites
- Transportation
 - City Intersection Monitoring
 - Highways
 - Rail/Metro/Subway

Features

- Extended temperature range
- On-Screen Display
- Advanced Motion Detection
- Optional Video Contents Analysis
- SD and USB Video Storage
- No fans
- Dual Encoding to full D1, 25/30 fps
- H.264, MPEG-4, and MJPEG Multi-protocol
- Terminal Server Mode Serial Data Ports
- Bi-Directional Audio
- Contact Sense / Contact Closure

High Resolution - Full Motion – Advanced Compression

The i5401-E provides high quality digitized video over standard IP Ethernet network. Every image is encoded in real-time and transmitted up to 25/30 (PAL/NTSC) frames per second. This provides full motion quality video for digital video surveillance applications using the most powerful video compression schemes available today.

Multi-Streaming & Diverse Protocol Encoding

The i5401-E encodes video up to full resolution and frame rate (i.e. up to DVD quality). Multi-Streaming assures that a high quality video can be streamed to large monitors for optimal viewing while another stream is encoded at lower frame rate and resolution for lower bandwidth applications such as recording, wireless or Internet Streaming. The main stream can be encoded in H264 while a second stream is encoded with MPEG4.

Extended Temperature

The enclosure does not require cooling fans and the -20°C to -60°C operating temperature range guarantees high availability beyond that of equipment rated for standard commercial temperature range.

Video Content Analysis Options

The i5401-E is equipped as standard with advanced motion detection supporting multiple user configurable detection zones and tracking. Optional Video Content Analysis can be license activated for features such as and not limited to Stopping, Loitering, Entering, Exiting, Appear, Disappear, and Counting.

Add-On Storage and JPEG Capture

Optional SD memory is easily added via user accessible front providing on-board video buffering for storing video clips. An internal FTP Client facilitates automatically sending snapshots to FTP Server. The quality and frequency of the snapshots can be controlled by the device administrator.

Network Managed

The i5401-E is managed via standard browser locally or remotely via its embedded WEB Server (HTTP) providing easy to use and intuitive web pages for configuring all aspects of the device.

Terminal Server Serial Data Ports

The socket addressable serial ports facilitate integration with existing control software. The ports can function as TCP Client, TCP Server or as local PTZ driver for attached PTZ camera.

Decoding

The i5401-E streams can displayed via virtually any RTSP aware client viewer (ex. VideoLan™). Furthermore, the encoder employs the same technology used in Impath's high density VSG 5000 system ensuring end to end compatibility where bulk decoding is required.

HTTP SDK

For developers, the i5401-E can be controlled via familiar HTTP protocols with a set of CGI commands proving complete control of the device.

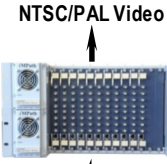
i-Volution i5401-E

Multi-Protocol Encoder

Control Center
Large Video Display
Monitoring



VSG 5000
Bulk Decoding



Internet Streaming

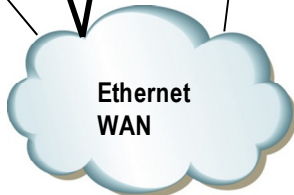


H.264 To Wall System
Full resolution and motion

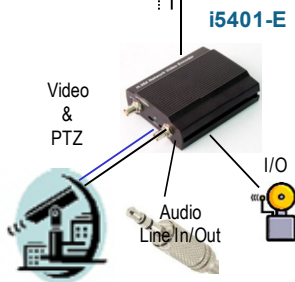
NVR Storage



H264
Reduced fps and/or resolution



Multi-Streaming



Typical Application

Model	Features
i5401-E	H264/MPEG4 Extended Temperature Single Ch. encoder with standard VCA

Video

Protocol

ITU H.264 (ISO MPEG-4 AVC Baseline), MPEG-4 and MJPEG

Resolution

NTSC 720x480, 352x240, 176x120

(D1/CIF/QCIF)

PAL 720x576, 352x288, 176x144

Frame rate/Bit Rate

Constant and Variable to 30/25 fps
50kbps to 4Mbps

Multi-Stream

Dual Encoding up to D1, 30/25fps

Network Connections

Up to 10Mbps aggregate

Video Input

Unicast and Multicast

De-Interlacing

Composite Video, 1.0Vp-p, 75 ohm, via BNC

Latency

Selectable On/Off

Nominal latency 190msec

Network Interface

LAN Interface

Protocols

IEEE 802.3 Ethernet RJ-45, 10/100Base-T, Auto-Sense
TCP/IP, UDP, IPv4, IGMPv2, RTP, RTSP, NTP, HTTP,
mDNS, UPnP, SMTP, SOCK, DHCP, DDNS, SSL v2/v3,
IEEE 802.1X, SSH, SNMPv2

Serial Data

Format/Connectors

Serial, Asynchronous, 2 Ports via TB

Interface Protocol

Port 1 - RS232, Port 2 - RS422/485 2-Wire

Data Rate

600bps to 115kbps

Transport Modes

Terminal Server TCP Client/TCP Server/Local PTZ

Live View / PTZ View

Built-In viewing with PTZ control for common PTZ incl.

Pelco and Panasonic

Audio

Audio Std. / Interfaces

G.711 / Line In & Out via 3.5mm mini-jacks

Mode

Bi-Directional Mono

I/O

OSD

2x TTL IN / 2 x Relay Out connections via TB

Time Synchronization

Date, Time, 48 Char. User Field configured per stream

Video Analytics

NTP/SNTP

Standard

(Standard and Optional)

Optional

Multi-segment detection

Direction, Stopping, Loitering, Entering, Exiting, Appear,
Disappear, Counting and Statistics

Optional Video Storage

SD and USB

Type

Micro SD (front slot) up to 16GB

USB attached jump drive

JPEG Capture

Protocol Transfer

JPEG Snapshot Capture and Send to FTP Server

Management

Reset

External Reset Button

Local Status

LED Status Display

Web Browser

Microsoft IE ver. 6.0 or higher

Security

Multi-level - User Name & Password

Alarms

Notifications via TCP, Multicast, HTTP, SNMP Traps

Firmware Upgrade

Remote Flash Upload via supplied IPAdminTool

Basic Setup

Discovery & IP Setting via supplied IPAdminTool

Environmental

Operating Temperature

-20 to +60C (-4 to +140F)

Relative Humidity

5% to 95% Non-Condensing

RoHS Compliance

EU Directive 20002/95/EC

Power Requirements

Input Voltage

10 to 14 VDC / Approx 3W

Physical

Dimensions (WxHxD)

103(W) x 38(H) x 141(D) mm (4.05" x 1.5" x 5.55")

Incl. Connectors

Weight

Approx. 0.385Kg (13.5oz)

Regulatory Approvals

Emissions - EU

EN55022:1998 Class A, EN6100-3-2:1995 &

EN6100-3-3:1995

North America

FCC47 C FR Part 15, Subpart B:1999 Class A

Australia/NZ

AS/NZS 3548:1995 Class A

Immunity

EN55024



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