The i-Volution™ 1400

The i-Volution 1400 (i1400) series of Video-over-IP Encoders supports 4 video inputs and has the flexibility to transport all four video signals simultaneously for monitoring. The i1400 offers the ability to encode any one of the four video inputs or a single composite Quad image all at full D1 resolution. The MPEG video streams can be viewed simultaneously using iMPath standard decoding offerings including stand-alone hardware decoders, the high density VSG platform and iMPath's ClientVue PC software decoding application.

The i1410 Quad input Encoder

The i1420 Quad input Encoder
with Dual Ethernet interface

The i1422 Quad input Encode
with Dual Ethernet and Dual Optics

Applications

- Security Surveillance
  - *Airports*
  - *Military*
  - *Industrial Complexes*
  - *Hospitals*
  - *Campuses*
  - *Detention Centers*
  - *Residential*
- Transportation Monitoring
  - *Road (ITS)*
  - *Traffic Intersections*
  - *Rail / Light Rail*
  - *Subway / Metro*

High Resolution - Full Motion Video

*i*MPath Networks i1400 provides the highest digitized video quality over standard IP Ethernet networks. Every video stream is encoded in real-time and displayed at 30/25 (NTSC/ PAL) frames per second. Whether transmitting all four streams simultaneously or a single stream, the i1400 provides the best Video Quality for both MPEG-1 (128K - 3Mbps) and MPEG-2 (1Mbps to 12 Mbps).

Four Channel Capacity

The i1400 supports four video inputs for surveillance or monitoring applications where multiple cameras are deployed within close proximity. The two serial data ports provide additional support for asynchronous network applications such as PTZ, NMS, POS and SCADA applications.

Network Scalability & Flexibility

The i1400 complements the i-Volution product family with enhanced scalability and functionality at the edge of the network.

The stand-alone i1400 Encoder/Decoder is ideal for a multitude of surveillance applications requiring quad channel capability and high quality full motion video.

Standards Compliant

Video is encoded using standard MPEG-1 or MPEG-2 compression. The video stream(s) can be viewed by *i*MPath software/hardware decoders and/or 3rd Party products.

The video and serial data can be transmitted over any standard IP network. This includes Ethernet, Gigabit Ethernet, SONET/SDH and ATM networks.

Network Manageability

The i1400 can be managed both locally and remotely using Telnet, i-Volution NMS or via 3rd Party SNMP network management systems.

Temperature Hardened

The i1400 is environmentally hardened to operate over extended operating ranges and is conformal coated to ensure maintenance free operation in harsh conditions.

Product Variant

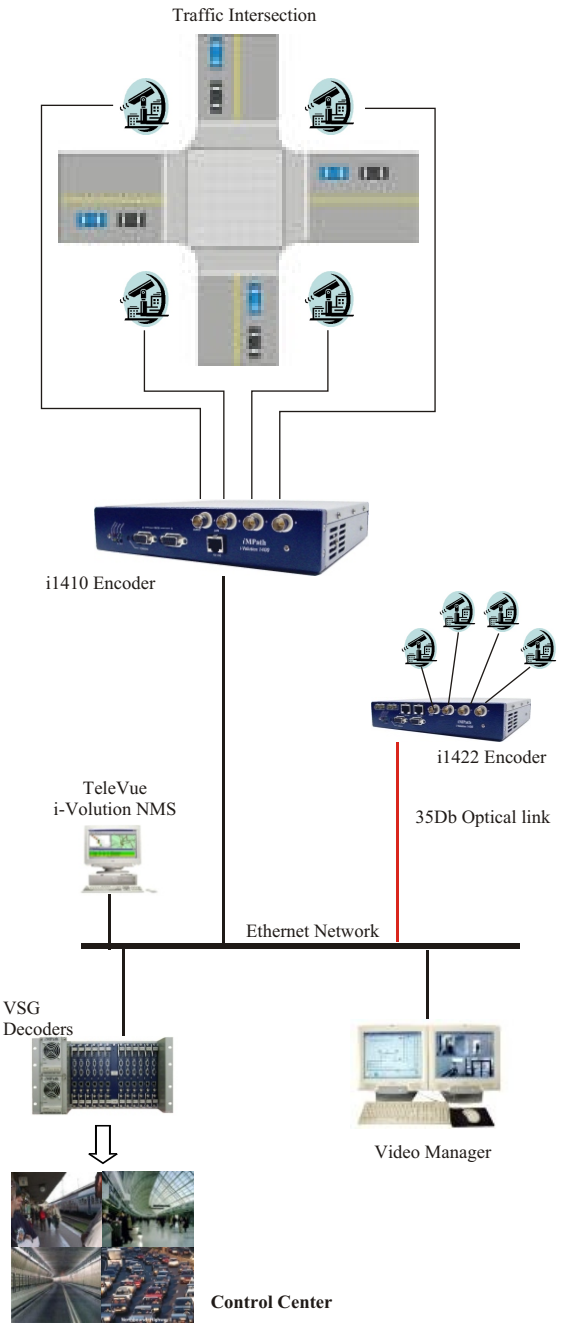
The Quad Encoder is available with an optional Layer-2 network switch that permits extended channel capability by cascading units eliminating distance and topology restriction. The i1400 Quad Encoder is available in three (3) product variants to meet customer needs.

i1410	4 Video inputs, 2 Serial Data and 1 Ethernet port
i1420	4 Video inputs, 2 Serial Data and 2 Ethernet ports (Layer-2 Switch)
i1422	4 Video inputs, 2 Serial Data, 2 Ethernet with 2 Optical interfaces (Layer-2 Switch)

*i*MPath Networks

Ethernet & Serial Data Interface Applications

Pan Tilt Zoom
Traffic Controllers
Card Readers
Virtual Message Signs
Weather Stations
Loop Detectors
Weight-in-motion
Video Detection
SCADA devices
Radar
PC Workstation
Maintenance Applications



Video

Analog Video		NTSC (30 fps), PAL (25 fps)	
Channels		Four (4) inputs	
		User Selectable - Video A or B or C or D or Quad view	
Connector		BNC, 75 ohm	
Digital Video		MPEG-1 (ISO/IEC 11172-2) and MPEG-2 (ISO 13818-2) MP@ML	
Data Rate		128 Kbps - 12 Mbps (maximum of 12Mbps aggregate stream(s))	
		MPEG-2 high quality full motion video from 1M bps	
Resolution		**NTSC**	**PAL**
	Full	720 x 480	720 x 576
	HHR	352 x 480	352 x 576
	SIF	352 x 240	352 x 288
	QSIF	192 x 128	160 x 128
Latency		170ms with Optimal Setting	

Data

Format	Serial / Asynchronous
Channels	(2)
Connectors	DB9-F
Interface	EIA-232, EIA-422/485 - 2 or 4 Wire, Half or Full Duplex
Data Rate	300 bps to 115.2 Kbps

LAN

Format	IEEE 802.3 Ethernet
Channels	(1) channel on i1410 and (2) channel on model i1420 and i1422
Connector	RJ45
Interface	10/100 Base-T Ethernet, Half/Full Duplex, Auto-Sensing
Data Rate	10/100 Mbps
Protocol	TCP, UDP, IPv4, IGMPv2, SNMPv2

Optical Link (Available on optical variant i1422)

Optical Format	IEEE 802.3 Ethernet
Connector / Fiber	(2) ST / Single Mode / 35dB link Budget
Interface	100 Base-FX Ethernet, Full Duplex
	Integrated Layer-2 Switches with Extended Channel Support
	Maximum Cascade of 15 units provided aggregate bandwidth < 70% of Optical Link.
Data Rate	100 Mbps
Laser Products Regulatory Approvals	Europe IEC60825-1.2; North America CFR1040 Class 1

Alarms

Via NMS/SNMP	Video Loss Detection
	Contact Sense & Closure (4)
	Unit Configuration Change
	Unit Reset

Management

Local Management	Via Serial (Console) Maintenance Port, LED Status Display
Remote Management	Via i-Volution NMS (TeleVue), Telnet, SNMPv2
Software Updates	Via Network Download

Power

Input Voltage	11.4 - 12.6 V DC (.100" center pin diameter lock type connector.)
	AC Power Adapter sold separately
Consumption	19 W

Physical

Size	W 9.1" (23.1 cm) x H 1.72" (4.37 cm) x L 9.1" (23.1 cm)
Weight	2 lbs (.9 kg)

Environmental

Operating Temperature	-20°C to +74°C
Relative Humidity	5% to 95%, non-condensing
Environmental Protection	PCB Conformal Coating

Regulatory Approvals

Emissions	
Europe	EN55022: 1998, EN61000-3-2: 1995 & EN6100-3-3: 1995 Class B
North America	FCC47 CFR Part 15, Subpart B: 1999 Class B
Australia/New Zealand	AS/NZS 3548: 1995 Class B
Immunity	En55024

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