

the i-Volution™ 1000 HARDENED ENCODER/DECODER

The i-Volution 1000 (i1000) Video-over-IP networking solution provides dual channel transport capability for advanced surveillance applications requiring high resolution, full motion video. The i1000 can encode or decode two MPEG-1/MPEG-2 video streams and two serial data channels over standards-based IP networks. The MPEG video streams can be viewed simultaneously from any PC and/or CCTV monitor in the network.

The i1000 is available as a stand-alone dual port video encoder or dual port video decoder.



The i1000 is available as a dual port Encoder or Decoder.

applications

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

High Resolution - Full Motion Video

Impath Networks i1000 provides the highest digitized video quality over standard IP Ethernet networks. Every image is encoded in real-time and displayed at 30/25 (NTSC/PAL) frames per second. This advanced capability provides full motion DVD quality video for digital CCTV surveillance applications.

Dual Channel Capacity

The i1000 provides dual-channel video connectivity for surveillance applications supporting two video cameras or monitors co-located within close proximity. The two serial data ports provide additional support for PTZ, NMS and POS applications.

Network Scalability and Flexibility

The i1000 complements the i-Volution product family with enhanced scalability and functionality at the edge of the network. The stand-alone i1000 Encoder/Decoder is ideal for a multitude of surveillance applications requiring dual channel capability and high quality full motion video.

Advanced features such as On-Screen-Display (OSD) allow network administrators to display camera name, date, time, resolution, bit rate and other related information on to any video monitor in the network.

Enhanced IP Multicast Capability - Video & Data

i-Volution simplifies network connectivity via standards-based multicast technology for streaming video and data within an IP network. IP Multicasting provides the ability to distribute information efficiently to an unlimited number of remote locations via a single communications interface at the central site. This flexibility reduces hardware and bandwidth requirements while optimizing the overall network.

Standards Compliant

Video is encoded using standard MPEG-1/MPEG-2 compression. The video stream(s) can be viewed by Impath software/hardware decoders and/or 3 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 i1000 can be managed both locally and remotely using Telnet, i-Volution NMS or via 3 Party SNMP network management systems.

Temperature Hardened

The i1000 is environmentally hardened to operate over extended operating ranges and is conformal coated to ensure maintenance free operation.

Class B Emissions Certification

Compliance with EN55022 and FCC Class B emission standards make the i1000 an ideal solution for both commercial and residential surveillance applications.



the i-Volution™ 1000

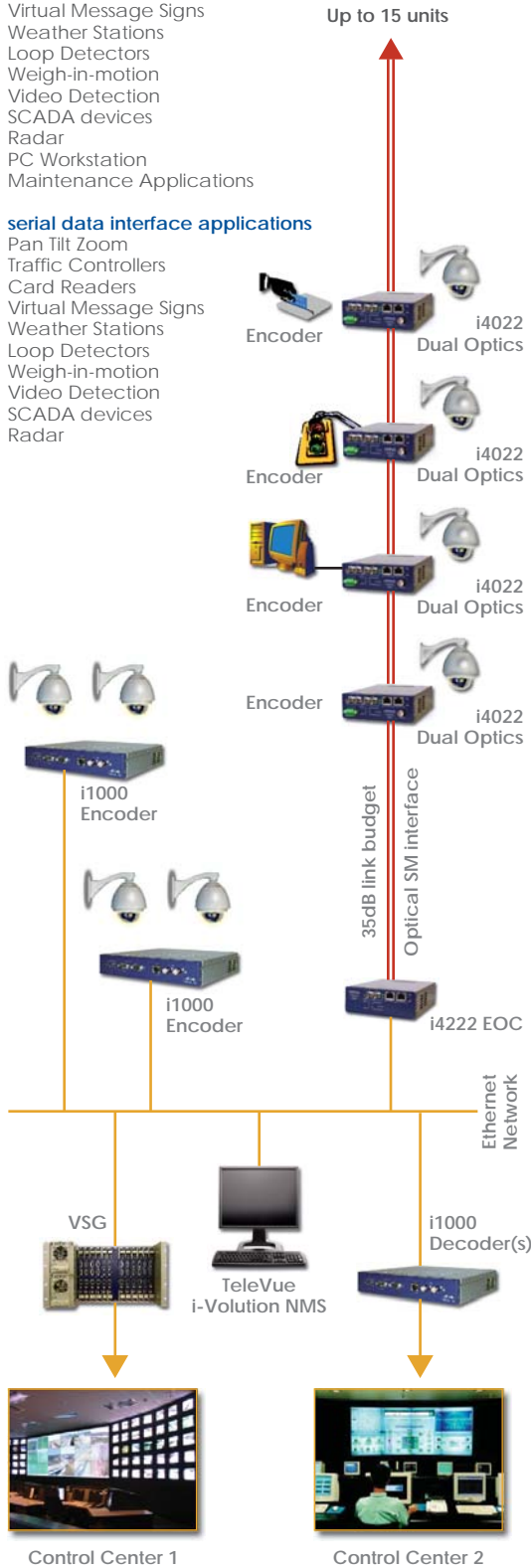
HARDENED ENCODER/DECODER

ethernet interface applications

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

serial data interface applications

- Pan Tilt Zoom
- Traffic Controllers
- Card Readers
- Virtual Message Signs
- Weather Stations
- Loop Detectors
- Weigh-in-motion
- Video Detection
- SCADA devices
- Radar



Video

Analog Video Channels	NTSC (30 fps), PAL (25 fps)	
IP connectivity Connector	Unicast and Multicast (UDP)	
Digital Encoding	BNC, 75 ohm	
	MPEG-1 (ISO/IEC 11172-2) and MPEG-2 (ISO/IEC 13818-1 Transport Stream or ISO/IEC 13818-2 Elementary Stream) MP@ML	
Data Rate	128 kbps to 8 Mbps aggregate in Transport Stream and up to 12 Mbps aggregate in Elementary Stream	
Digital Decoding	Decoder automatically detects incoming MPEG-1/2 TS or ES stream	
Data Rate	128 kbps to 12 Mbps aggregate in both Transport and Elementary Stream	
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
IP Connectivity	Unicast and Multicast (UDP)
Channels	(2)
Connectors	DB9-F
Interface	EIA-232/422/485 - 2/4 Wire, Half/Full Duplex, Software Programmable
Data Rate	300bps to 115.2 kbps

LAN

Format	IEEE 802.3 Ethernet
Channels	(1)
Connector	RJ45
Interface	10/100 Base-T Ethernet, Half/Full Duplex, Auto-Sensing
Data Rate	10/100 Mbps
Protocol	TCP, UDP, IPv4, IGMPv2, RTP, Diffserv, SAP, SNMPv2

Motion Detection

Zone	Full Screen
Sensitivity	User Selectable: Low to High (1 to10)
Re-Arm Delay	User Selectable:100ms to 25 seconds

Alarms

Via NMS/SNMP	Video Loss Detection
	Video Motion Detection
	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 - One or multiple units simultaneously

Power

Input Voltage	11.4 - 12.6 V DC (.100" center pin diameter lock type connector.)
Consumption	i1000-E = 15 W; i1000-D = 7 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	-34°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 & EN61000-3-3: 1995 Class B
North America	FCC47 CFR Part 15, Subpart B: 1999 Class B
Australia/New Zealand	AS/NZS 3548: 1995 for Class B
Immunity	EN55024

Variant	MPEG-1 & 2	# of Video ports	# of Data ports	# of Ethernet ports
i1000-E	Encoder	2	2	1
i1000-D	Decoder	2	2	1

Impath Networks Canada Corporation 42 Payzant Avenue, Suite 100, Halifax, NS Canada B3B 1Z6
T: 902-468-1010 F: 902-468-1044 impathnetworks.com

Impath Networks Ltd. 9 Camelot Drive, Suite 100, Ottawa, ON Canada K2G 5W6
T: 613-226-4000 F: 613-226-4602 impathnetworks.com

Copyright 2008 Impath Networks Canada Corporation. Impath is a registered trademark of Impath Networks Canada Corporation. TeleVue, ClientVue and i-Volution are trademarks of Impath Networks Canada Corporation. All other trademarks are those of their respective owners. Printed in Canada - 10/08. Specifications subject to change without notice or obligation. 06mbr_132_100_i1000_09.pdf

