

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

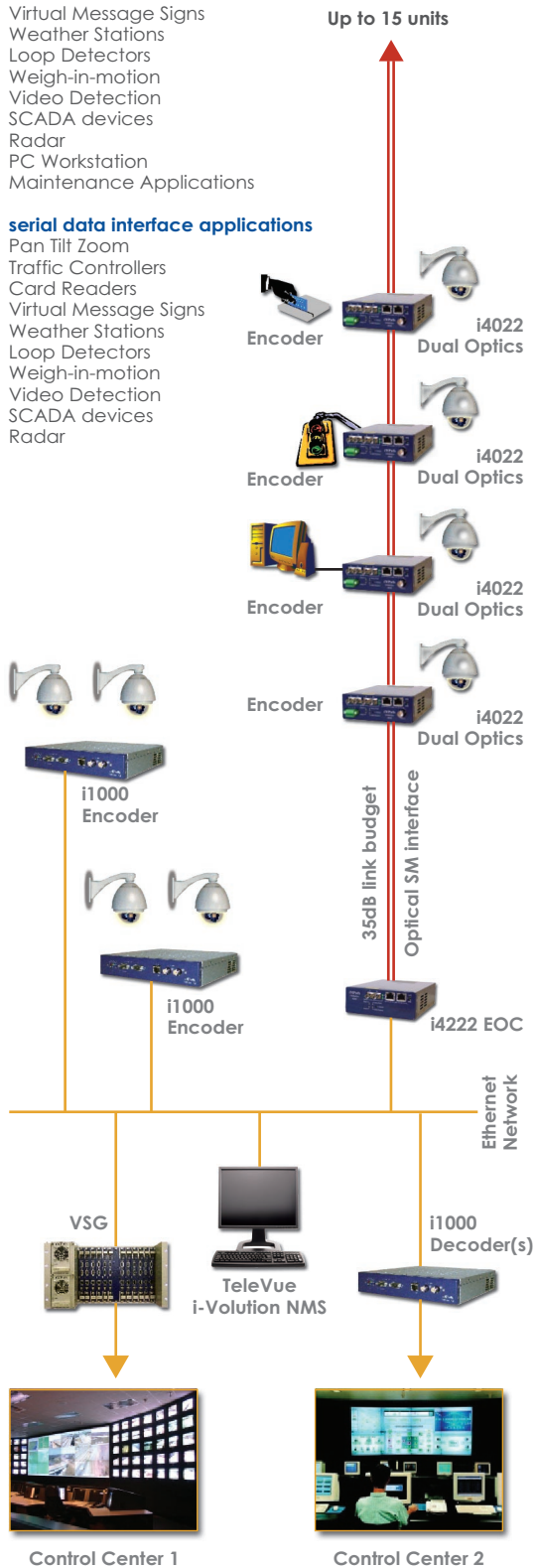
HARDENED ENCODER/DECODER

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: 2
 - IP connectivity Connector: Unicast and Multicast (UDP)
 - Digital Encoding: BNC, 75 ohm
 - Data Rate: MPEG-1 (ISO/IEC 11172-2) and MPEG-2 (ISO/IEC 13818-1 Transport Stream or ISO/IEC 13818-2 Elementary Stream) MP@ML
 - Digital Decoding: 128 kbps to 8 Mbps aggregate in Transport Stream and up to 12 Mbps aggregate in Elementary Stream
 - Resolution: Decoder automatically detects incoming MPEG-1/2 TS or ES stream
 - Latency: 128 kbps to 12 Mbps aggregate in both Transport and Elementary Stream
- | | 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 |
- 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 to 10)
- 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: EN55022: 1998, EN61000-3-2: 1995 & EN61000-3-3: 1995 Class B
- Europe: FCC47 CFR Part 15, Subpart B: 1999 Class B
- North America: AS/NZS 3548: 1995 for Class B
- Australia/New Zealand: EN55024
- Immunity

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

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