VPort 354 Series

Full motion, 4-channel MJPEG/MPEG4 industrial video encoders

> Industrial design with -30 to 70°C operating temperature and fiber optic Ethernet port
> 2 Ethernet ports for cascade and port redundancy
> SD card slot for local storage capability
> Modbus/TCP supported for easy communication with SCADA software
> Video stream up to 120 frames/sec at 4CIF (704 x 480) resolution
> Free VPort SDK PLUS supported

Introduction

The VPort 354 is a high performance, 4-channel industrial video encoder that provides up to 4CIF full frame rate performance (NTSC: 704 x 480 @ 30 FPS; PAL: 704 x 576 @ 25 FPS) for each channel, and supports a dual MJPEG/MPEG4 algorithm, making it especially well-suited for use with distributed surveillance systems in critical industrial applications. In addition to the rugged-design features, the Modbus/

TCP and serial-to-Ethernet connectivity make the VPort 354 more suitable for industrial applications. The two built-in Ethernet ports can be cascaded as a daisy-chain or used for port redundancy, making network communication more safe and reliable. To prevent video loss when the network is down, the VPort 354 can automatically record video on an SD card, and once the network is back up, the recorded video can be downloaded via FTP access.

Specifications

Video

Video Compression: MJPEG or MPEG4 (ISO/IEC 14496-2)
Video Inputs: 4, BNC connector (1.0 Vpp, 75 ohm)
Video Outputs: Via Ethernet port
Video Streams: Dual streams (one for MJPEG, the other for MPEG4) at the same video resolution (note that MJPEG only has one quality setting)
NTSC/PAL: Manual
Video Resolution and FPS (frames per second):

	NTSC		PAL	
	Size	Max. FPS	Size	Max. FPS
QCIF	176 x 112	30	176 x 144	25
CIF	352 x 240	30	352 x 288	25
2CIF	704 x 240	30	704 x 288	25
4CIF	704 x 480	30	704 x 576	25

Video Viewing:
• Adjustable image size and quality
• Timestamp and text overlay

Audio

Audio Inputs: 1 Line-in or MIC-in with RCA connector
Audio Outputs: 1 Line-out with RCA connector
Audio Format: Mono, PCM

Network

Protocols: TCP, UDP, HTTP, SMTP, FTP, Telnet, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, QoS, SNMPv1/v2c/v3, DDNS, Modbus/TCP
Ethernet: 2 10/100BaseT(X) auto negotiating RJ45 ports, or 2 100BaseFX fiber ports (single/multi-mode, SC connector)

Serial Port

PTZ Ports: 1, RS-232/422/485 port (terminal block connector), max. speed of 115.2 Kbps
COM Ports: 1, RS-232/422/485 port (DB9 female connector), max. speed of 115.2 Kbps
Console Port: 1, RS-232 RJ45 port

GPIO

Digital Inputs: 4, max. 8 mA
Low: +13 V to +30 V; High: -30 V to +3 V
Relay Outputs: 2, max. 24 VDC @ 1 A

LED Indicators

PWR1: Power 1
PWR2: Power 2
FAULT: Can be configured to correspond to system alarm, power failure, or disconnected network
V1, V2, V3, V4: Video input signal activity

Local Storage

SD Socket: Standard SD socket, SDHC, with SD LED indicator

Power Requirements

Input Voltage: 2 12/24 VDC or 24 VAC inputs for redundancy
Power Consumption: Approx. 12 W

Physical Characteristics

Housing: Metal, IP30 protection
Dimensions: 80.2 x 135 x 105 mm (3.16 x 5.31 x 4.13 in)
Weight: 1200 g (2.64 oz)
Installation: DIN-Rail mounting, wall mounting (with optional kit)

Alarms

Video Motion Detection: Includes sensitivity tuning
Video Loss: Video loss alarm
Scheduling: Daily repeat timing schedule
Imaging: JPEG snapshots for pre/trigger/post alarm images
Email/FTP Messaging: Automatic transfer of stored images via email or FTP with event-triggered actions
Custom Alarms: HTTP event servers and CGI events for setting customized alarm actions

PAN/TILT/ZOOM

PTZ Camera Control: Via RS-232/422/485 PTZ port or COM port
PTZ Control Functions: PAN, TILT, ZOOM, FOCUS, moving speed, preset position (max. 25 positions), and 10 custom commands
PTZ Function Updates: Driver upload supported
Supported Device Protocols: Pelco D, Pelco P, Dynacolor DynaDome, Cohu, Custom Camera
Transparent PTZ Control: Control PTZ cameras with legacy PTZ control panel or keyboard connected to a PC or VPort decoder

Security

Password: User level password protection
Filtering: By IP address

Environmental Limits

Operating Temperature:
Standard Models: 0 to 60°C (32 to 140°F)
Wide Temp. Models: -30 to 70°C (-22 to 158°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications

Safety: UL 60950-1
EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS:
EN 61000-4-2 (ESD), Level 3,
EN 61000-4-3 (RS), Level 3,
EN 61000-4-4 (EFT), Level 3,
EN 61000-4-5 (Surge), Level 3,
EN 61000-4-6 (CS), Level 2,
EN 61000-4-8,
EN 61000-4-11
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6
Note: Please check Moxa's website for the most up-to-date certification status.

MTBF (mean time between failures)

Time: 271,000 hrs
Database: Telcordia (Bellcore), GB 25°C
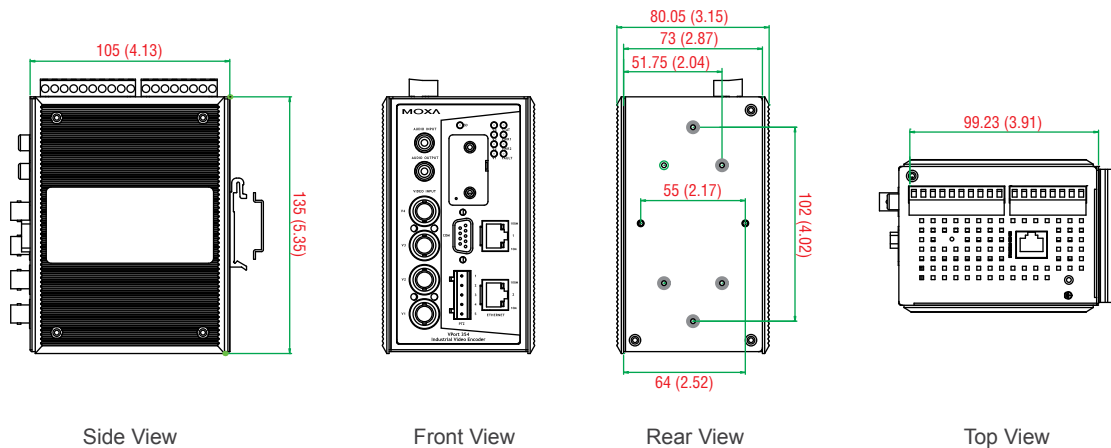
Warranty

Warranty Period: 5 years
Details: See www.moxa.com/warranty

Software Development Kit

VPort SDK PLUS: Includes CGI commands, ActiveX Control, and API library for customized applications or system integration for third-party developers (the latest version of SDK is available for download from Moxa's website).

Dimensions

Unit: mm (inch)

Side View Front View Rear View Top View

: Ordering Information

Available Models		Port Interface		
Standard Temperature (0 to 60˚C)	Wide Temperature (-30 to 70˚C)	10/100BaseT(X)	Multi-mode, SC Connector	Single-mode, SC Connector
VPort 354	VPort 354-T	2	–	–
VPort 354-MM-SC	VPort 354-MM-SC-T	–	2	–
VPort 354-SS-SC	VPort 354-SS-SC-T	–	–	2

Optional Accessories (can be purchased separately)

SoftNVR-IA V3.0: 64-channel IP surveillance software for industrial automation applications
DR-4524/75-24/120-24: 45/75/120 W DIN-Rail 24 VDC power supplies
MDR-40-24/60-24: 40/60 W DIN-Rail 24 VDC power supplies, -20 to 70°C operating temperature
WK-46: Wall mounting kit
RK-4U: 4U-high 19" rack mounting kit

Package Checklist

- VPort 354 video encoder
- 10-pin terminal block for 1 power input and 4 digital inputs
- 8-pin terminal block for the other power input and 2 relay outputs
- 5-pin terminal block for the RS-232/422/RS-485 PTZ control port
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card