

VPort 351 Series

Full motion, 1-channel MJPEG/MPEG4 industrial video encoder



- > Industrial design with -40 to 75°C operating temperature and fiber optic Ethernet port
- > Video stream up to 30 frames/sec at full D1 (720 x 480) resolution
- > Pre/post-alarm video recording function for advanced surveillance
- > 2-way (1-in/1-out) audio supported
- > Free VPort SDK PLUS and 4-channel video surveillance software

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.



Introduction

The VPort 351 is a high performance, 1-channel industrial video encoder that provides up to full D1, full frame rate performance (NTSC: 720 x 480 @ 30 FPS; PAL: 720 x 576 @ 25 FPS) and supports a dual MJPEG/MPEG4 algorithm, making it especially well-suited for use with distributed surveillance systems in critical industrial applications. In

addition, a continuous pre/post event trigger video record function can help system administrators determine why an alarm was triggered, and 2-way audio is provided for the convenience of real-time communication between system administrators located at the central site, and engineers in the field.

Rugged Design for Mission-critical Industrial Environments

- -40 to 75°C wide operating temperature
- Built-in single-mode or multi-mode optical fiber Ethernet port; no media converter required
- UL508 and Class 1, Div. 2 certified for hazardous locations
- Redundant 12/24 VDC and 24 VAC power inputs to ensure greater reliability
- Metal housing with IP30 protection against dust
- DIN-Rail mounting installation for industrial environments

Advanced Network Protocols Support Efficient Network Transmission and Integration

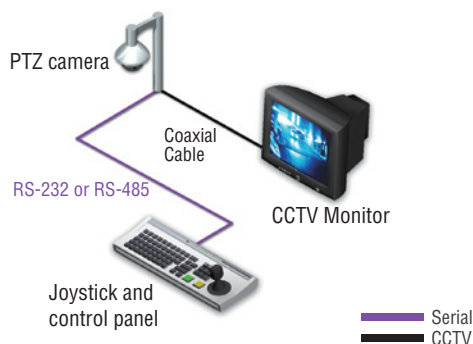
- Standard RTSP (real-time streaming protocol) video streaming for easy integration
- Multicast (IGMP) protocols for efficient network transmission
- SNMPv1/v2c/v3 MIB-II for easy network management
- QoS (ToS) for configuring the transmission priority of video streams
- UPnP, DDNS, and IP filtering supported

Transparent PTZ Control for Easy Control of PTZ Cameras

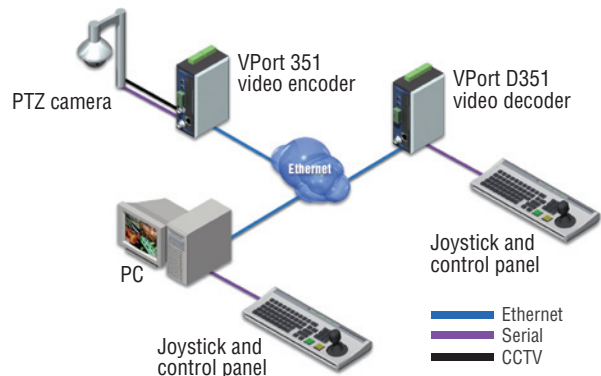
The VPort 351 adopts Moxa's Real COM technology to implement transparent communication for RS-232/422/485 PTZ control. The benefit of this transparent PTZ control function is that it eliminates

the need to build a PTZ control driver into the VPort product, since legacy PTZ control panels or keyboards can be used to control the PTZ camera directly.

Legacy PTZ Camera Control



Transparent PTZ Camera Control over Ethernet



Specifications

Video

Video Compression: MJPEG or MPEG4 (ISO/IEC 14496-2)

Video Inputs: 1, BNC connector (1.0 Vpp, 75 ohms)

Video Outputs: 1, loop-through BNC connector

NTSC/PAL: Auto-sensing or manual

Video Resolution and FPS (frames per second):

	NTSC		PAL	
	Size	Max. FPS	Size	Max. FPS
QVGA	320 x 240	30	320 x 288	25
CIF	352 x 240	30	352 x 288	25
VGA	640 x 480	30	640 x 576	25
4CIF	704 x 480	30	704 x 576	25
Full D1	720 x 480	30	720 x 576	25

Video Viewing:

- Adjustable image size and quality
- Timestamp and text overlay

Audio

Audio Inputs: 1 Line-in or MIC-in with 3.5 mm phone jack

Audio Outputs: 1 Line-out with 3.5 mm phone jack

Network

Protocols: TCP, UDP, HTTP, SMTP, FTP, Telnet, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, QoS, SNMPv1/v2c/v3, DDNS

Ethernet: 1 10/100BaseT(X) auto negotiating RJ45 port, or 1 100BaseFX fiber port (Single/multi mode, SC connector)

Optical Fiber:

	100BaseFX	
	Multi-mode	Single-mode
Wavelength	1300 nm	1310 nm
Max. TX	-10 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km ^a 4 km ^b	40 km ^c
Saturation	-6 dBm	-3 dBm

a. 50/125 μm, 800 MHz*km fiber optic cable

b. 62.5/125 μm, 500 MHz*km fiber optic cable

c. 9/125 μm single-mode fiber optic cable

Serial Port

PTZ Ports: 1, RS-232/422/485 port (terminal block connector), max. speed of 115.2 Kbps

Console Port: 1 RS-232 RJ45 port

GPIO

Digital Inputs: 2, max. 8 mA

- High: +13 to +30V
- Low: -30 to +3V

Relay Outputs: 2, max. 24 VDC @ 1 A

LED Indicators

STAT: Indicates if the system booted properly or not

PWR1: Power 1

PWR2: Power 2

FAULT: Can be configured to correspond to system alarm, power failure, video loss, or disconnected network

VIDEO: Video input signal active

AUDIO TEST: Audio input signal in test mode

PTZ: PTZ control signal active

Power Requirements

Input Voltage: 2 12/24 VDC or 24 VAC inputs for redundancy

Power Consumption: Max. 8 W

Physical Characteristics

Housing: Metal, IP30 protection

Dimensions: 52.98 x 135 x 105 mm (2.09 x 5.31 x 4.13 in)

Weight: 960 g

Installation: DIN-Rail mounting, wall mounting (with optional kit)

Alarms

Pre/Post Alarm: 9 MB memory for video recordings

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 for setting customized alarm actions

PAN/TILT/ZOOM

PTZ Camera Control: Via RS-232/422/485 PTZ 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, 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: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL508

EMS:

EN61000-4-2 (ESD), level 2

EN61000-4-3 (RS), level 3

EN61000-4-4 (EFT), level 3

EN61000-4-5 (Surge), level 3

EN61000-4-6 (CS), level 3

EN61000-4-12 (Oscillatory wave immunity), level 3

EMI: FCC Part 15, CISPR (EN55022) class A

Hazardous Location: UL/cUL Class I, Division 2, Groups A, B, C and D; ATEX Class I, Zone 2, Ex nC IIC

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: 272,000 hrs

Database: MIL-HDBK-217F, GB 25°C

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

System Requirements

CPU: Pentium 4, 2.4 GHz or above

Memory: 512 MB memory or above

OS: Windows XP/2000 with SP2 or above

Browser: Internet Explorer 6.x or above

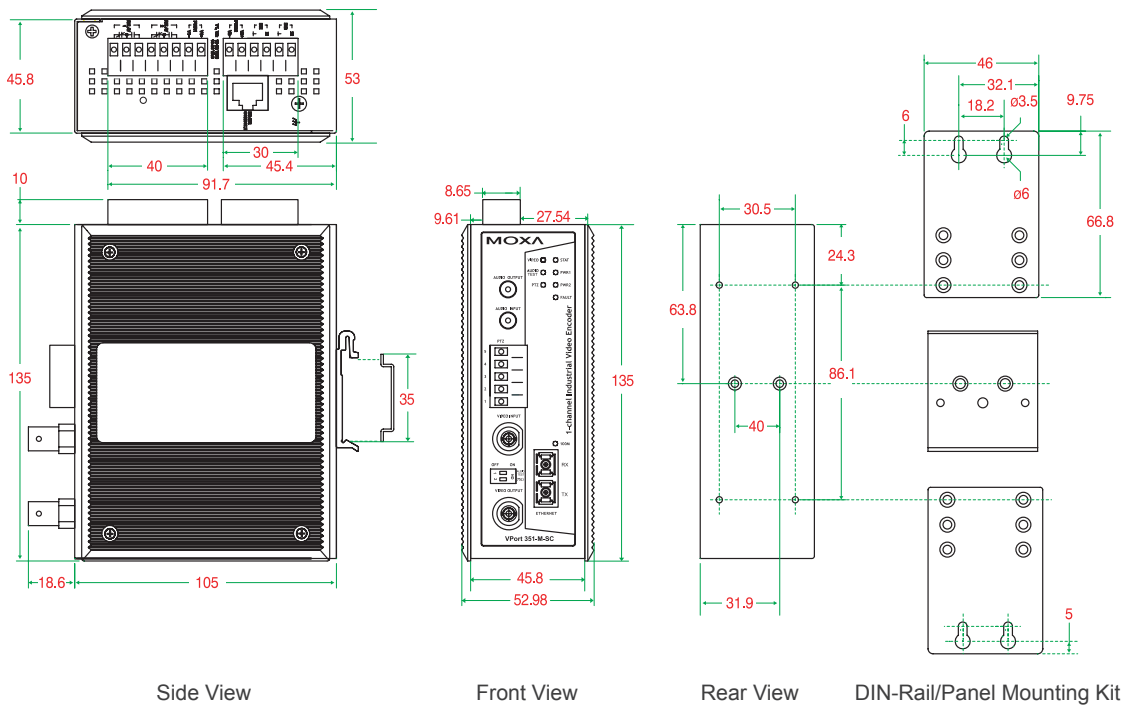
Multimedia: DirectX 9.0c or above

Software Bundled Free

SoftDVR™ Lite: 1 to 4-ch IP surveillance software for viewing and recording

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)



Ordering Information

Available Models		Port Interface		
Standard Temperature (0 to 60 °C)	Wide Temperature (-40 to 75 °C)	10/100BaseT(X)	Multi-mode, SC Connector	Single-mode, SC Connector
VPort 351	VPort 351-T	1	---	---
VPort 351-M-SC	VPort 351-M-SC-T	---	1	---
VPort 351-S-SC	VPort 351-S-SC-T	---	---	1

Optional Accessories (can be purchased separately)

SoftNVR: Expandable IP surveillance software for managing up to 64 video channels

SoftDVR™ Pro: 16-channel IP surveillance software for viewing and recording

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