

VPort 451 Series

Multiple stream, 1-channel MJPEG/MPEG4 industrial video encoder

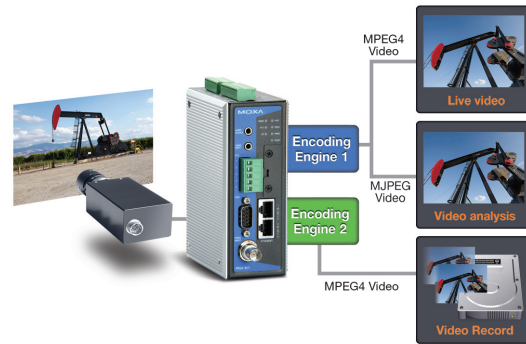


- > 3 simultaneous video streams for MJPEG and MPEG4
- > Video stream up to 30/25 frames/sec at full D1 (NTSC:720 x 480; PAL:720x576) resolution
- > Video latency under 200 ms
- > 2 Ethernet ports for cascade and Ethernet port redundancy
- > Local storage capability with SD card slot
- > Industrial design with -40 to 75°C operating temperature
- > Free VPort SDK PLUS supported



Introduction

The VPort 451 is a 1-channel industrial video encoder with MJPEG and MPEG4 video compression that provides up to 3 video streams (2 MPEG4, 1 MJPEG) simultaneously. The video streams can be used for different purposes, such as viewing, recording, and analyzing. In addition, a video latency under 200 milliseconds makes the VPort 451 the optimal solution for mission-critical video applications, for which a real-time video display is key. In addition, the industrial rugged design, which includes a -40 to 75°C operating temperature, built-in fiber Ethernet ports, IP30 form factor protection, and industrial certifications, makes the VPort 451 superbly suitable for harsh environments.



Specifications

Video

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

Video Inputs: 1, BNC connector

Video Outputs: over Ethernet

Video Streams: Max. of 3 video streams (2 encoders: 1 for MPEG4, 1 for MJPEG)

NTSC/PAL: Auto-sensing or manual

Video Resolution and FPS (frames per second) for a single stream:

	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
VGA	640 x 480	30	640 x 480	25
4CIF	704 x 480	30	704 x 576	25
Full D1	720 x 480	30	720 x 576	25

Note: The resolutions of the MPEG4 and MJPEG video streams from the 2nd encoder engine are the same, with a total FPS of 30 for NTSC and 25 for PAL.

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

Audio Format: Mono, PCM

Network

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

Ethernet: 2 10/100BaseT(X) auto negotiating RJ45 ports

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 (DB9 female connector), max. speed of 115.2 Kbps

Console Port: 1 RS-232 RJ45 port

GPIO

Digital Inputs: 2, max. 8 mA

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

VIDEO: Video input signal

PTZ: PTZ control signal

SD: SD card operation

Local Storage

SD Socket: Standard SD socket, V2.0 (SDHC)

Power Requirements

Input Voltage: 2 24 VDC/VAC power inputs for redundancy

Power Consumption: Approx. 5.5 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: 900 g

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 24 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: -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)

Standards and Certifications

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 3,

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: 375,000 hours

Database: Telcordia (Bellcore), 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

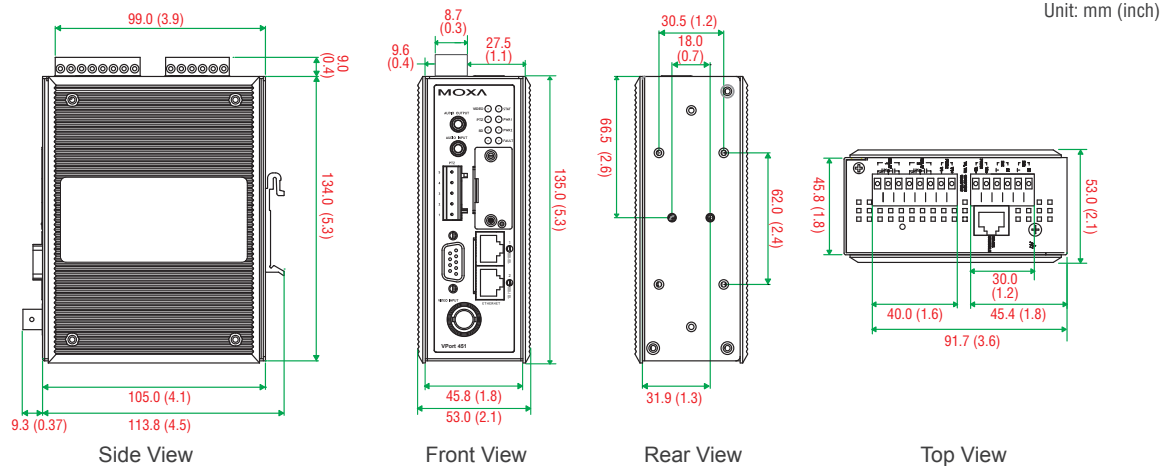
Browser: Internet Explorer 6.x or above

Multimedia: DirectX 9.0c or above

Software Bundled Free

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



Ordering Information

Available Models

VPort 451: 1-channel MJPEG/MPEG4 industrial video encoder with 2 10/100BaseT(X) ports, 0 to 60°C operating temperature

VPort 451-T: 1-channel MJPEG/MPEG4 industrial video encoder with 2 10/100BaseT(X) ports, -40 to 75°C operating temperature

Optional Accessories (can be purchased separately)

SoftNVR-IA: 32-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 451 video encoder
- 6-pin terminal block for 1 power input and 2 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