

# VPort 251

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



- > Compress analog video/audio signals into MJPEG/MPEG4 video streams
- > Video stream up to 30 frames/sec at full D1 (720 x 480) resolution
- > 2-way (1 in, 1 out) audio supported
- > Transparent PTZ control for using legacy PTZ control panel or keyboard
- > Loop-through power output for powering an analog camera
- > Free VPort SDK PLUS and 4-channel video surveillance software



### : Introduction

The VPort 251 is a high performance, 1-channel video encoder with compact form factor that is suitable for installation in a variety of locations, including outdoor camera cabinets. To make installation easier, the VPort 251 supports both panel mounting and DIN-Rail mounting (with DK-35A accessory), and 1 loop-through power output for powering an analog camera. In addition, the VPort 251 provides

up to full D1, full frame rate video performance (NTSC: 720 x 480 up to 30 FPS; PAL: 720 x 576 up to 25 FPS) and supports both MJPEG or MPEG4, making it especially well-suited for use with distributed video surveillance systems. A 2-way audio function is also provided for the convenience of real-time communication between system administrators located at the central site, and engineers in the field.

### : Specifications

#### Video

**Video Compression:** MJPEG or MPEG4 (ISO/IEC 14496-2)  
**Video Inputs:** 1, BNC connector (1.0 Vpp, 75 ohm)  
**Video Outputs:** Via Ethernet port  
**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  
**Audio Format:** Mono, PCM

#### Network

**Protocols:** TCP, UDP, HTTP, SMTP, FTP, Telnet, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, QoS, DDNS, SNMPv1/v2c/v3  
**Ethernet:** 1 10/100BaseT(X) auto negotiating RJ45 port

#### Serial Port

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

#### GPIO

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

#### LED Indicators

**STAT:** Indicates if the system booted properly or not  
**VIDEO:** Video input signal active  
**PTZ:** PTZ control signal active

#### Power Requirements

**Input Voltage:** 12/24 VDC or 24 VAC input  
**Power Consumption:** Approx. 6 W  
**Power Output:** 2-pin terminal block connector for loop-through from power input

#### Physical Characteristics

**Housing:** Metal  
**Dimensions:** 88.2 x 106 x 50 mm (3.47 x 4.17 x 1.97 in)  
**Weight:** 850 g (1.87 oz)  
**Installation:** DIN-Rail mounting (with optional kit), wall mounting

#### 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

### 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:** 0 to 60°C (32 to 140°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 2,

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:** 281,000 hrs

**Database:** Telcordia (Bellcore), GB 25°C

### Warranty

**Warranty Period:** 5 years

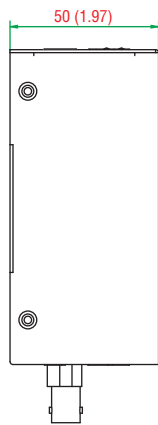
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Software Development Kit

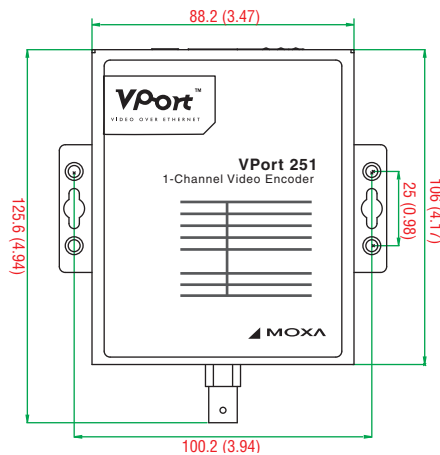
**VPort SDK PLUS:** Includes CGI commands, ActiveX Control, and API library for customized applications or system integration for third-party developers (the latest version of SDK is available for download from Moxa's website).

### Dimensions

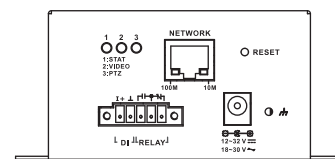
Unit: mm (inch)



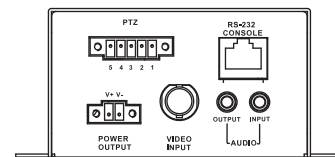
Side View



Top View



Rear View



Front View

## Ordering Information

### Available Models

**VPort 251:** 1-channel MJPEG/MPEG4 video encoder, 0 to 60°C operating temperature

**Optional Accessories** (can be purchased separately)

**SoftNVR-IA:** 32-channel IP surveillance software for industrial automation applications

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

**Power Adaptors (required for powering the VPort 251):**

- PWR-12120-USJP-S2: L-type (5.5/2.1/9.5) power adaptor, 1.2 A @ 12 VDC output, US/JP plug

- PWR-12120-AU-S2: L-type (5.5/2.1/9.0) power adaptor, 1.2 A @ 12 VDC output, AU plug

- PWR-12150-EU-S2: L-type (5.5/2.1/9.0) power adaptor, 1.5 A @ 12 VDC output, Euro plug

- PWR-12150-UK-S2: L-type (5.5/2.1/9.0) power adaptor, 1.5 A @ 12 VDC output, UK plug

**DK-35A:** DIN-Rail mounting kit (35 mm)

### Package Checklist

- VPort 251 video encoder
- 5-pin terminal block for 1 DI and 1 relay output
- 2-pin terminal block for loop-through power output
- 5-pin terminal block for RS-232/422/485 PTZ control port
- 4 pads
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card