

# VPort 351 Series

## Full Motion, 1-channel MPEG4/MJPEG Industrial Video Encoder



### Highlights

- 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/1out) audio supported
- Free VPort SDK PLUS and 4-channel video surveillance software
- Class 1, Div. 2 certified for use in hazardous locations



### Features

#### High Performance Video/Audio Networking Solution

- Works with NTSC/PAL analog video cameras
- MPEG4/MJPEG video compression technology (MJPEG will be supported after V2.0 firmware)
- 1 BNC video input and 1 BNC video output with 75Ω resistance
- 1 audio input and 1 audio output for 2-way voice communication
- Standard RTSP (real-time streaming protocol) for easy integration supported
- Multicast (IGMP) protocols for efficient network transmission supported
- SNMP(V1/V2c/V3) MIB-II for network management (Pending)
- Built-in web server and RS-232 console for remote access and configuration
- 1 auto-sensing 10/100BaseT(X) Ethernet port or 100BaseFX (SC connector)
- TCP, UDP, and HTTP network transmission modes
- Maximum 10 clients access simultaneous
- Configure video quality for CBR (constant bit rate) or VBR (variable bit rate)
- Full D1, 4CIF, VGA, CIF, and QVGA video resolutions supported (4CIF will be supported after V2.0 firmware)
- Timestamp and text overlay supported
- RS-232/422/485 COM port supported for controlling PTZ (PAN/TILT/ZOOM) motorized camera
- UPnP and IP filtering supported

- PPPoE and DDNS supported (after V2.0 Firmware)

#### Industrial Rugged Design

- 2 12/24 VDC and 24 VAC redundant power inputs with LED indicators
- -40 to 75°C operating temperature for critical industrial environment (T models)
- DIN-Rail mounting, or panel mounting (with optional kit)
- IP30 form factor protection
- Class 1, Div. 2 hazardous certification for critical environments (Pending)

#### Intelligent Alarm Triggered Capability

- Built-in Video Motion Detection (VMD)
- Equipped with 2 DIs and 2 Relays (DOs) for external sensors and alarms
- Pre/post-alarm video recording function for advanced surveillance
- Pre, trigger, and post alarm snapshot images provided
- Sequential snapshot images supported
- Messages with recorded video and snapshot images can be sent via FTP and Email
- Alarm schedule setting capability

#### Video Management and Control

- MOXA SoftDVR™ Lite IP Surveillance Software for viewing and recording bundled free
  - Free MOXA VPort SDK PLUS supported with flexible interface and sample codes for customized application or system integration
- \* Please contact a MOXA sales representative if you require VPort SDK PLUS

### Introduction

The VPort 351 is a high performance, 1-channel industrial video encoder that provides up to the full D1, full frame rate performance (NTSC: 720 x 480 @ 30 FPS; PAL: 720 x 576 @ 25 FPS). In order to meet a wide range of customer requirements, the VPort 351 is

designed to support multi-codecs, including MJPEG and MPEG4 algorithms. In addition, a continuous pre/post event trigger video record function is supported to prevent the premeditated depredation.

## Rugged Design for Industrial Mission-critical Environment

The VPort 351 features DIN-Rail mounting, 12/24 VDC and 24 VAC redundant power input, -40 to 75°C operating temperature (T models), and IP30 protection for industrial mission-critical applications.

In addition, the VPort 351 has received important industrial and safety approvals, such as UL508, Class1, Div. 2, making the VPort 351 well suited for transportation, utility, and manufacturing systems.

## Pre/post Alarm Recorded Video for Better Event Records

The VPort 351 is designed to record pre/post alarm video to help system administrators determine what causes an alarm to be

triggered. The record includes both video and time stamp to provide a more complete record.

## 2-way Audio Enables the Real-time Communication between Central and Field Sites

In addition to being able to monitor video from remote sites, it is also important to be able to handle field site situations. For this reason, 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. The 2-way audio function not only saves time, but also saves the cost of needing to add additional communication devices (such as a phone).

## Specifications

### Video

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

**Video Input:** 1, BNC connector

**Video Output:** 1, loop-trough BNC connector

**NTSC/PAL:** Auto-sensing or manual

**Video Resolution and FPS (frames per second):**

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

\* 4CIF will be supported after V2.0 firmware.

### Video Viewing:

- Adjustable image size and quality
- Timestamp and text overlay

### Audio

**Audio Input:** 1 Line-in or Mic-in

**Audio Output:** 1 Line-out

### Network

**Protocols:** TCP, UDP, HTTP, SMTP, FTP, Telnet, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, PPPoE (Pending), DDNS (Pending), SNMPv3 (Pending)

**Ethernet:** 1 10/100BaseT(X) auto negotiation port (RJ45), or 1 100BaseFX fiber port (SC connector)

### Serial Port

**PTZ port:** 1, RS-232/422/485 Terminal Block connector, Max. 115.2 Kbps

**Console port:** 1 RS-232 RJ45 port

### GPIO

**Digital inputs:** 2, max. 8 mA  
 "High": +13V to +30V  
 "Low": -30V to +3V

**Relay outputs:** 2 (max. 24 VDC@ 1A)

### LED Indicators

**PWR1:** Power 1

**PWR2:** Power 2

**VIDEO:** Video input signal

**AUDIO TEST:** Audio input signal test

**PTZ:** PTZ control signal

**FAULT:** Can be configured for system alarm, power failure, video loss, or network down

**STAT:** Indicates if the system boots properly

### Mechanical

**Casing:** IP30 protection, metal case

**Dimensions (W x H x D):** 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)

### Power Requirement

**Input:** 2 12/24 VDC and 24 VAC power inputs for redundancy

### Environment

**Operating Temperature:** 0 to 60°C (32 to 140°F)  
 -40 to 75°C (-40 to 167°F) for T models

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

**Humidity:** 5 to 95% (non-condensing)

### Regulatory Approvals

**Safety:** UL508 (Pending)

#### Hazardous Location:

UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending)  
 ATEX Class I, Zone 2, EEx nC IIC (Pending)

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

**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  
 EN61000-4-8  
 EN61000-4-11  
 EN61000-4-12

**Shock:** IEC60068-2-27

**Freefall:** IEC60068-2-32

**Vibration:** IEC60068-2-6

MTBF: 160,000 hrs

Database: MIL-HDBK-217F, GB 25°C

\*Please check MOXA's website for the most up-to-date certification status.

**Warranty**

5 years

**Alarm Features**

- Pre/post alarm video recording capability with 9 MB memory
- Video motion detection with picture size and sensitivity tuning
- Daily repeat timing schedule
- JPEG snapshots for pre/trigger/post alarm images
- Automatic transfer of stored images via email or FTP with event-triggered actions

**PAN/TILT/ZOOM**

- PTZ camera control through RS-232/422/485
- Supported devices and protocols: Pelco D-protocol, Dynacolor SmartDOME (Pending), and Custom Camera
- Support PTZ driver upload function

**Security**

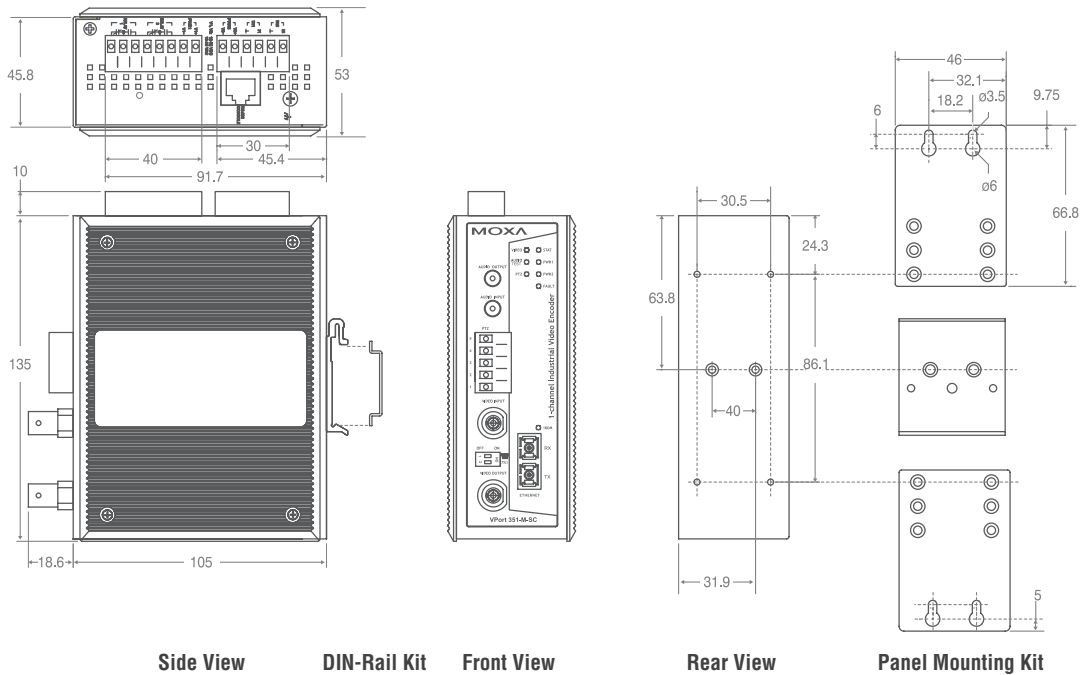
- User level password protection
- IP address filtering

**Software Bundled Free**

MOXA SoftDVR™ Lite: 1- to 4-channel IP Surveillance Software for viewing & recording

\* Preliminary specifications, subject to be change without notice

**Dimensions (unit = mm)**



**Ordering Information**

VPort 351-**A**-**BB**-**C**

Ordering Code Definition	Fiber Port	FO Connector	Operating Temperature
	M: One Multi Mode S: One Single Mode	SC: SC Connector	T: Operating Temp. -40 to 75°C *(Standard Models: 0 to 60°C)
Available Models	Standard: • VPort 351 • VPort 351-M-SC • VPort 351-S-SC		Wide Temperature: • VPort 351-T • VPort 351-M-SC-T • VPort 351-S-SC-T
Optional Accessories	• DR-4524: 45W/2A DIN-Rail 24 VDC Power Supply, 85 to 264 VAC input • DR-75-24: 75W/3.2A DIN-Rail 24 VDC Power Supply, 85 to 264 VAC input • DR-120-24: 120W/5A DIN-Rail 24 VDC Power Supply, 88 to 132 VAC/176 to 264 VAC input by switch • WK-46: Wall Mounting Kit		