

VPort 461A Series

Superior video performance, 1-channel H.264/MJPEG industrial video encoders



- > Supports up to 3 video streams simultaneously for H.264 and MJPEG
- > Up to Full D1 resolution (720 x 480) @ 90 FPS for 3 video streams with legacy analog video images
- > Video latency under 200 ms
- > 2 Ethernet ports for cascade and Ethernet port redundancy
- > Moxa DynaStream™ function support for network efficiency
- > ONVIF support for standardization and interoperability
- > Local storage capability with SD card slot
- > Industrial design with -40 to 75°C operating temperature



Introduction

The VPort 461A 1-channel industrial video encoder with H.264 video compression algorithm provides the best video quality on the market, but with a smaller bandwidth requirement than other video compression standards. In addition, to meet various video stream requirements, the VPort 461A can provide up to 3 video streams simultaneously using H.264 and MJPEG compression formats. Video streams can be used for different purposes, such as viewing, recording, and analysis. In addition, the rugged industrial design,

which includes a -40 to 75°C operating temperature, IP30 protection, and industrial certifications, make the VPort 461A suitable for harsh environments.

The VPort 461A is equipped with Moxa's innovative DynaStream™ technology, which allows you to change the video frame rate automatically. With DynaStream™, you can control your network bandwidth budget and simplify network system management. The CBR Pro™ function guarantees the lowest packet loss for limited bandwidth transmissions to ensure that images will not exhibit the mosaic effect.

Specifications

Video

Video Compression: H.264 (MPEG4 part 10), MJPEG

Video Inputs: 1 (BNC connector)

Video Outputs: Over Ethernet

Video Streams: 3, H.264 or MJPEG video streams

NTSC/PAL: Auto-sensing or 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
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

Video Viewing:

- DynaStream™ support for changing the video frame rate automatically
- Adjustable image size and quality
- Timestamp and text overlay
- Maximum of 10 simultaneous unicast connections, 50 multicast clients
- CBR Pro™ support for accurate streaming bit rate control
- Image manipulation: 180° rotation
- Image tuning: control brightness, contrast, saturation

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 (G.711)

Network

Protocols: IPv4/v6, UDP, HTTP, SMTP, FTP, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, QoS (ToS), SNMP V3, DDNS, Modbus/TCP, 802.1X, SSH/HTTPS

Ethernet: 2 10/100BaseT(X) Ethernet ports, RJ45 connector

Serial Port

PTZ Ports: 1 RS-232 or RS-422/485 port, terminal block connector, 115.2 kbps

COM Ports: 1 RS-232 or 485 port, DB9 male connector, 115.2 kbps

Console Port: 1 RS-232 port, RJ45 connector

Local Storage

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

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

STAT: Indicates if system is booted up properly or not

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: Indicates if PTZ or COM port data has been transmitted

SD: Indicates if SD card was mounted successfully

Power Requirements

Input Voltage: 12 to 32 VDC, or 18 to 30 VAC

Input Current: 0.85 A @ 12 VDC; 0.3 A @ 32 VDC; 0.85 A @ 18 VAC; 0.56 A @ 30 VAC

Physical Characteristics

Housing: Metal, IP30 protection

Dimensions: 46 x 134 x 105 mm (1.81 x 5.31 x 4.13 in)

Weight: 710 g (1.57 lb), including DIN-rail mounting kit

Installation: DIN-rail mounting (standard), wall mounting (optional)

Alarms

Intelligent Video: Camera tampering

Video Motion Detection: Includes sensitivity tuning

Scheduling: Daily repeat timing schedule

Imaging: JPEG snapshots for pre/trigger/post alarm images

Custom Alarms: HTTP event servers and CGI events for setting customized alarm actions

Email/FTP Messaging: Automatic transfer of stored images via email or FTP with event-triggered actions

Pre-alarm Buffer: 50 MB for JPEG snapshot images

PAN/TILT/ZOOM

PTZ Camera Control: Via PTZ port or COM port

PTZ Control Functions: PAN, TILT, ZOOM, FOCUS, moving speed, preset position (max. 128 positions)

PTZ Function Updates: Driver upload supported

Supported Device Protocols: Pelco D, Pelco P, Custom Camera

Security

Password: User level password protection

Filtering: By IP address

Authentication: 802.1X

Encryption: HTTPS, SSH

Environmental Limits

Operating Temperature:

Standard Models: -25 to 60°C (-13 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)

Vibration:

IEC 60068-2-6, 2 to 13.2 Hz: 2 mm (peak-peak); 13.2 to 100 Hz: 0.7g; 1.50 hrs/axis

IEC 60068-2-6, 3 to 9 Hz: 7 mm (peak-peak); 9 to 150 Hz: 1.0g; 1.86 hrs/axis

Shock: IEC 60068-2-27, 20g/11ms

Altitude: 2000 m

Ingress Protection: IEC 60529, IP30

Standards and Certifications

Safety: UL 60950-1

EMC: EN 55022/24

EMI: CISPR 22, FCC Part 15B Class A

EMS:

IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV

IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m

IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV

IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV

IEC 61000-4-6 CS: 10 V

IEC 61000-4-8

IEC 61000-4-11

Transportation: NEMA TS2

MTBF (mean time between failures)

Time: 647,088 hrs

Standard: Telcordia SR332

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Minimum Viewing System Requirements

CPU: Pentium 4, 2.4 GHz or above

Memory: 512 MB memory or above

OS: Windows XP/2000 with SP4 or above, Windows Vista, Windows 7

Browser: Internet Explorer 9.x or above

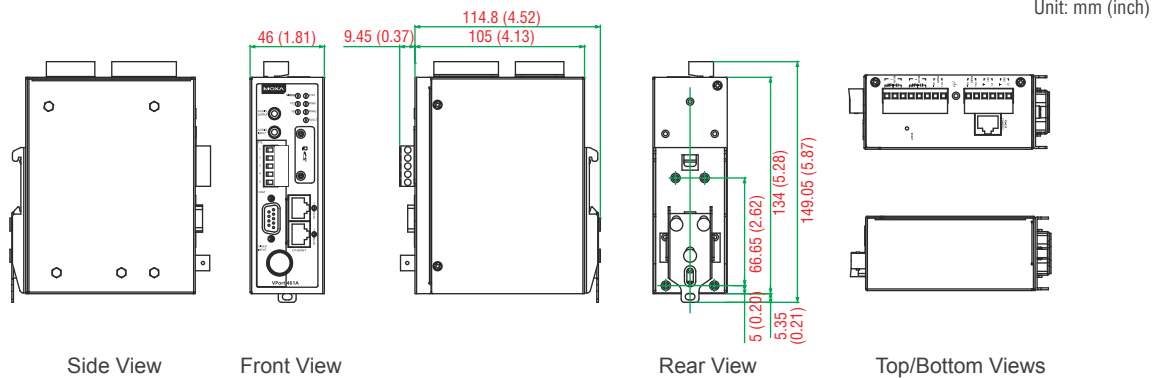
Multimedia: DirectX 9.0c or above

Software Development

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).

Standard: ONVIF, Profile S

Dimensions



Ordering Information

Available Models

VPort 461A: 1-channel H.264/MJPEG industrial video encoder with 2 10/100BaseT(X) ports, -25 to 60°C operating temperature

VPort 461A-T: 1-channel H.264/MJPEG industrial video encoder with 2 10/100BaseT(X) ports, -40 to 75°C operating temperature

Optional Accessories (can be purchased separately)

SoftNVR-IA: 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

DR-4524: 45W/2A, 24 VDC power supply, with universal 85 to 264 VAC input

DR-75-24: 75W/3.2A, 24 VDC power supply, with universal 85 to 264 VAC input

DR-120-24: 120W/5A, 24 VDC power supply, with 88 to 132 VAC/176 to 264 VAC input by switch

MDR-40-24/60-24: 40/60 W DIN-rail 24 VDC power supplies, -20 to 70°C operating temperature

MDR-40-24: 40W/1.7A DIN-rail 24 VDC power supply with universal 85 to 264 VAC input, -20 to 70°C operating temperature

MDR-60-24: 60W/2.5A DIN-rail 24 VDC power supply with universal 85 to 264 VAC input, -20 to 70°C operating temperature

WK-46: Wall-mounting kit

RK-4U: 19-inch rackmount set

Package Checklist

- VPort 461A 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