VPort 464 Series

Superior video performance, 4-channel industrial video encoders

- Each channel supports 2 D1 30 fps streams simultaneously, or merge 1 quad stream 30 fps image into 4 channels
- Video latency under 200 ms
- 2 Ethernet ports for Cascading or Ethernet port redundancy
- Moxa DynaStream™ function support for network efficiency
- ONVIF support for standardization and interoperability
- Local storage capability with microSD card slot
- Industrial design with -40 to 75°C operating temperature

DynaStream

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Introduction

The VPort 464 4-channel industrial video encoder uses the H.264 video compression algorithm to provide the best video quality on the market, but with a smaller bandwidth requirement than other video compression standards. In addition, to meet various requirements, each channel of the VPort 464 can support 2 video streams simultaneously or you can merge all 4 channels into 1 quad view stream using H.264 and MJPEG compression formats, providing greater flexibility for a variety of uses, including viewing, recording, and analysis. The rugged industrial design, which includes a -40 to 75°C operating temperature, IP30 protection, and industrial certifications, make the VPort 464 suitable for harsh environments.

The VPort 464 comes with two gigabit Ethernet ports and supports cascade mode and network redundancy. In addition, Moxa's innovative DynaStream™ technology lets you change the video frame rate automatically, allowing you to 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, AVC) or MJPEG
Video Inputs: 4, BNC connector (1.0 Vpp, 75 ohm)
Video Output: Via Ethernet
Video Streams: Dual streams for each channel, or 1 quad stream
NTSC/PAL: Auto-sensing or manual
Video Resolution and Frame Rate (in fps):

	NTSC		PAL	
	Size	Max. FPS	Size	Max. FPS
QCIF	176 x 112	30	176 x 144	25
4CIF	704 x 480	30	704 x 576	25
CIF	352 x 240	30	352 x 288	25
VGA	640 x 480	30	640 x 480	25
QVGA	320 x 240	30	320 x 240	25
Full D1	720 x 480	30	720 x 576	25
Quad view	1440 x 960	30	1440 x 1152	25

Video Viewing:
• DynaStream™ support for changing the video frame rate automatically
• On-screen display: Text lines, Graphical image (BMP, GIF, or JPEG)
• CBR Pro™: Support for accurate streaming bit rate control
• Maximum of 5 simultaneous unicast connections, and 50 multicast clients
• Image tuning to control brightness, contrast, saturation, hue, sharpness, and noise reduction

Audio

Audio Inputs: 1, Line-in 3.5 mm phone jack connector
Audio Outputs: 1, Line-out 3.5 mm phone jack connector
Audio Format: Mono, PCM (G.711)

Network

Protocols: IPv4/v6, TCP, UDP, HTTP, SMTP, FTP, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, QoS (ToS), SNMP V3, DDNS, Modbus/TCP, 802.1X, SSH/HTTPS, NTCIP
Ethernet: 2 10/100/1000BaseT(X) Ethernet ports, RJ45 connectors

Serial Port

PTZ Ports: 1 RS-232 or RS-422/485 port, terminal block connector or DB9 male connector, 115.2 kbps
Console Port: 1, RS-232 RJ45 port

GPIO

Digital Inputs: 4, max. 8 mA
High: +13 V to +30 V; Low: -30 V to +3 V
Relay Outputs: 2, max. 24 VDC @ 1 A

LED Indicators

STAT: System status
PWR1: Power 1
PWR2: Power 2
FAULT: Can be configured to correspond to system alarm, power failure, or disconnected network
PTZ: Indicates if PTZ or COM port data is being transmitted
SD: Indicates if microSD card mounting or unmounting is successful
V1, V2, V3, V4: Video input signal activity for channels 1 to 4

Power Requirements

Input Voltage: 2 redundant power inputs, 12 to 32 VDC or 18 to 30 VAC, terminal block connector
Input Current: 12 to 32 VDC, 1.0 A (max.) or 18 to 30 VAC, 1.0 A (max.)
Power Consumption: 12 W (max.)

Physical Characteristics

Housing: Metal, IP30 protection
Dimensions: 80.2 x 135 x 105 mm (3.16 x 5.31 x 4.13 in)
Weight: 1.13 kg (2.49 lb)
Installation: DIN-rail mounting (standard), wall mounting (optional)

Alarms

Video Motion Detection: Each channel has 3 independently configurable motion areas
Intelligent Video Surveillance: Camera tampering detection
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

PTZ (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. 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
EMI: CISPR 22, FCC Part 15B Class A
EMS:
EC 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

MTBF (mean time between failures)

Time: 569,152 hrs
Standard: Telcordia SR332

Warranty

Warranty Period: 5 years
Details: See www.moxa.com/warranty

Minimum Viewing System Requirements

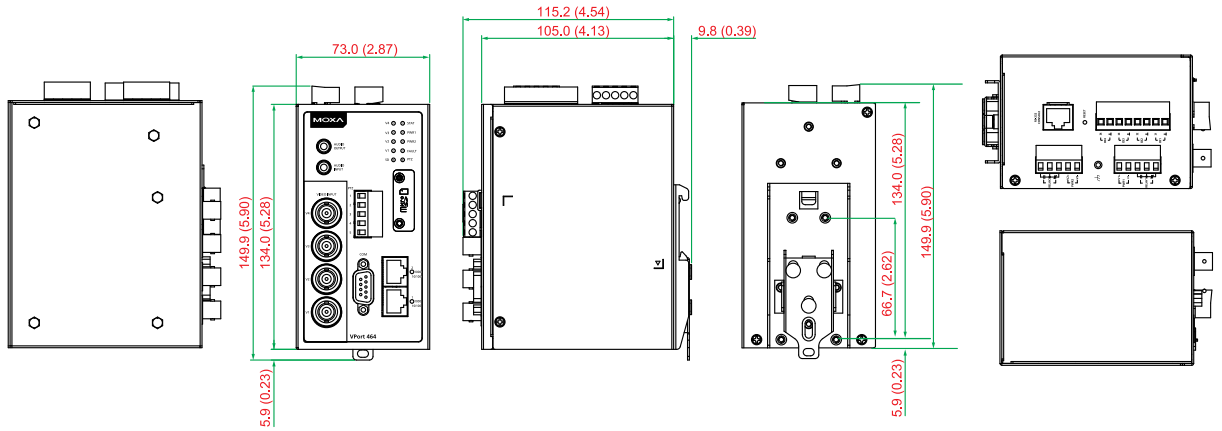
CPU: Intel Core i5, 2.4 GHz or above
Memory: 1 GB memory or above
OS: Windows 7
Browser: Internet Explorer 9.x or above

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).
Standards: ONVIF, Profile S

Dimensions

Unit: mm (inch)



Ordering Information

Available Models

VPort 464: 4-channel industrial video encoder, 2 10/100/1000 BaseT(X) Ethernet ports, -25 to 60°C operating temperature
VPort 464-T : 4-channel industrial video encoder, 2 10/100/1000 BaseT(X) Ethernet 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 464 video encoder
- 2 5-pin terminal blocks for 2 power inputs and 2 relay outputs
- 1 8-pin terminal block for 4 DIs
- 1 5-pin terminal block for the RS-232/422/485 PTZ control port
- Quick installation guide
- Documentation
- Warranty card