

# VPort P16-2MR Series

**EN 50155 compliant, 1080P video image, infrared IP cameras**



- > Compliant with EN 50121-3-2 and essential sections\* of EN 50155 (T1 temperatures: -25 to 55°C; TX temperatures: -40 to 70°C)
- > 1/3" progressive scan camera with maximum 1920 x 1080 resolution at up to 30 FPS
- > Built-in IR illuminator and ICR (Infrared Cut-filter Removal) for day & night images
- > High quality video image with DNR and WDR
- > Up to 4 H.264 or MJPEG independent simultaneous video streams
- > DynaStream™ for optimized network efficiency
- > CBR Pro™ for high image quality in limited bandwidth transmissions
- > Supports SDXC (up to 1 TB SD card) for local storage
- > 1 built-in audio input or microphone
- > ONVIF conformity for standardization and interoperability

\*Moxa defines "essential compliance" to include those EN 50155 requirements that make products more suitable for rolling stock railway applications.



## Introduction

The rugged VPort P16-2MR cameras produce Full FHD (1920 x 1080) video images and feature an H.264/MJPEG IP camera dome, giving them the versatility and ruggedness needed for mobile IP video surveillance applications in a variety of different installations and

environments. In addition, the cameras feature EN 50155 compliance, vandal-proofing (EN 62262 IK8), a -25 to 55°C or -40 to 70°C (T models) operating temperature, a rugged M12 Ethernet port, PoE power input, a built-in microphone, a digital input, IP66 rain and dust protection, and an IR illuminator for day & night image capability.

## Specifications

### Camera

**Sensor:** 1/3" HD progressive scan CMOS

**Lens:** 3.6, 4.2, 6, 8 mm fixed focal lengths

**Angle of View:**

- 3.6 mm, F1.6: Diagonal 99°, Horizontal 70°, Vertical 39°
- 4.2 mm, F1.6: Diagonal 82°, Horizontal 62°, Vertical 34°
- 6.0 mm, F1.8: Diagonal 62°, Horizontal 43°, Vertical 24°
- 8.0 mm, F1.6: Diagonal 42°, Horizontal 33°, Vertical 17°

**Illumination (low light sensitivity):**

- Color: 0.2 Lux @ F1.2
- B/W: 0.05 Lux @ F1.2 (0 lux if IR illuminator is on)

**Camera Angle:** Pan 350°, Tilt 65° (controlled manually)

**ICR Control (for day & night):** Auto

**IR Illumination:** 3 IR LED illuminators, 5-meter (max.) effective distance; On/Off controlled manually (night mode) or by the light sensor.

**Synchronization:** Internal

**White Balance:** ATW/AWB

**Electronic Shutter:** Auto, Fixed (1/30 to 1/25000 sec)

**DNR:** Built-in

**WDR:** On/Off, up to 100 dB

**AGC (auto gain control):** 2X, 4X, 8X, 16X

**Flickerless Control:** Automatic, 50 Hz, 60 Hz

**Auto Exposure:** Level ±5

**Image Rotation:** Flip, Mirror, 90°, 180°, 270° rotation

**Image Setting:** Manual tuning with saturation, sharpness, and contrast

**Black Level Control:** High/Medium/Low

### Video

**Video Compression:** H.264 (ISO/IEC 14496-10) or MJPEG

**Video Output:** via Ethernet

**Video Streams:** 4

### 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
SVGA	800 x 600	30	800 x 600	25
HD	1280 x 720	30	1280 x 720	25
WXGA	1280 x 800	30	1280 x 800	25
Full FHD	1920 x 1080	30	1920 x 1080	30

### Video Viewing:

- CBR Pro™ for good image quality in limited bandwidth transmissions
- DynaStream™ support for automatic frame rate adjustment
- 3 configurable privacy mask areas
- Adjustable image size and quality
- Timestamp and text overlay
- OSD (On Screen Display) position adjustable
- Maximum of 5 simultaneous unicast connections

### Audio

**Audio Inputs:** 1, built-in microphone

**Audio Format:** PCM (G.711), AAC

### Network

**Protocols:** TCP/IP, UDP, HTTP, SMTP, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, QoS, IGMPv3, SNMPv1/v2c/v3, DDNS, TFTP, ARP, DHCP, OPT66/67, IPv6, SIP

**Ethernet:** 1 10/100BaseT(X) isolated Ethernet port, 4-pin M12 Dcode female connector, with 20 cm cable

### Local Storage

**SD Socket:** Micro SD socket

**Interface:** SDXC (can support up to 1 TB)

