

1. Product Highlights

- The Camtells Mark panoramic AI camera is purpose-built for space management. A single device provides complete coverage for areas larger than 300 m² (3,229 ft²).
- Mark integrates dedicated AI processing and local storage, enabling fast, straightforward deployment without a server. Its generative AI engine connects the panoramic camera to foundation models for more powerful applications.
- Panoramic and PTZ imaging work together to deliver complete 300 m² coverage with both broad visibility and clear detail.
- The panoramic module uses a proprietary dual-fisheye prism and single-sensor architecture for improved stability and AI processing efficiency.
- A slip-ring PTZ mechanism supports unlimited 360° rotation.
- Supports two-way audio.
- Supports intelligent dual illumination (infrared and white light).
- Full-color ring event indicator.

2. Use Cases

- Campus and facility monitoring; child and older-adult monitoring; security monitoring

3. Technical Specifications

Category	Parameter	Specification
Product	Product Name	Camtells Mark
	Model	EPM21C
	NPU Performance	1.0 TOPS at INT8
	Operating System	Linux 5.10.61
	Memory (RAM)	256 MB embedded DDR3
	Storage	eMMC: ☒ Supported ☐ Not supported ☐ Reserved in design Capacity options: 128 GB or 256 GB
		microSD card: ☐ Supported ☒ Not supported Maximum capacity: N/A
	Panoramic Camera - Effective Pixels	5 MP
	Panoramic Camera - Maximum Resolution	2960 × 1666
	Panoramic Camera - Lens Type	☒ Fixed focal length ☐ Varifocal
	Panoramic Camera - Focal Length	0.93 mm

Category	Parameter	Specification
	Panoramic Camera - Aperture	F2.2
	Panoramic Camera - Field of View	Horizontal: 360°; vertical: 360°
	PTZ Camera - Effective Pixels	5 MP
	PTZ Camera - Maximum Resolution	2560 × 1440
	PTZ Camera - Lens Type	☒ Fixed focal length ☐ Varifocal
	PTZ Camera - Focal Length	6.0 mm
	PTZ Camera - Aperture	F1.6
	PTZ Camera - Field of View	Horizontal: 51.6°; vertical: 28.0°; diagonal: 59.8°
Video and Audio	Frame Rate	15 fps default; 15 fps maximum
	Bit Rate	Main stream: Panoramic: 2.0 Mbps; PTZ: 1.5 Mbps Substream: Panoramic: 0.6 Mbps; PTZ: 0.6 Mbps
	Video Codec	☒ H.264 ☒ H.265
	Encoding Profiles	Main stream: Panoramic: 2960 × 1666 at 15 fps; PTZ: 2560 × 1440 at 15 fps Substream: Panoramic: 960 × 540 at 15 fps; PTZ: 960 × 540 at 15 fps
	Audio Codec	☒ G.711A ☐ AAC ☐ Other
	Two-Way Audio	☐ Half-duplex ☒ Full-duplex ☐ Not supported
Connectivity and I/O	Wired Ethernet	☐ Not supported ☒ 10/100 Mbps auto-negotiation ☐ 10/100/1000 Mbps auto-negotiation
	Network Setup	☒ Wired ☐ Wi-Fi/QR code ☐ Bluetooth ☐ Acoustic ☐ 4G ☐ Zero-touch setup
	External Ports	☒ DC power ☒ RJ45 Ethernet Reset button (not available on aviation-connector version) ☐ RCA audio ☐ Other
Hardware and Power	Power Input	☒ DC ☐ PoE ☐ USB Type-C ☐ Micro-USB ☐ Direct power from PoE switch
	Power Adapter	12 V DC, 2 A
	Power Consumption	< 24 W maximum peak
	USB Data Transfer	☐ Supported ☒ Not supported
	Dynamic Illumination Control	☒ Adjustable infrared illumination ☒ Firmware-controlled automatic white-light adjustment ☐ No dynamic adjustment ☐ Other: no illuminator
	Pan/Tilt Control	☒ Supported ☐ Not supported
	Status Indicator	☐ Single-color ☐ Two-color ☒ Three-color ☐ No indicator

Category	Parameter	Specification
	Microphone	☐ Single microphone ☒ Dual microphones ☐ Not supported ☐ Other: microphone array (sound-source localization)
	Speaker	☒ Supported ☐ Not supported
	Speaker Rating	4 Ω / 5 W
	Button Function	☒ Reset ☐ Call ☐ End call ☐ One-touch alert ☐ Other
	Privacy	Privacy mode: ☒ Supported ☐ Not supported
Night Vision and Illumination	Night Vision Mode	☒ Infrared ☒ Full color ☒ Smart night vision (automatic switching) ☐ Not supported
	Night Vision Range	≥ 15 m (49.2 ft), preliminary
	Minimum Illumination	Color: 0.01 lux
	Illuminator	Type: ☒ Infrared ☒ White light
AI Features	Detection Algorithms	☒ Motion detection ☒ Human detection ☐ Region intrusion ☐ Line crossing ☒ Face detection and capture ☐ Vehicle detection
	AI Performance	Meets SABC detection-distance requirements
Software and Protocols	Platform and Protocols	Integration protocols: ☐ GB/T 28181 ☐ ONVIF ☒ Proprietary protocol ☐ Other
		Network protocols: TCP/IP, HTTP, HTTPS, RTSP, RTP, RTCP, NTP, DHCP, DNS, UDP, IGMP, SSL/TLS
	IoT Platform Integration	☒ Supported ☐ Not supported
	OTA Updates	☒ Supported ☐ Not supported
	Mobile App	Camtells app
	Interface Languages	English, Simplified Chinese, Traditional Chinese, Japanese, Korean, Thai, Vietnamese, Russian, German, French, Italian, Danish, Spanish, Portuguese, and Arabic
Mechanical and Environmental	Physical Characteristics	Dimensions (H × W × D): 169 × 60 × 132 mm (6.65 × 2.36 × 5.20 in)
		Weight: 530 g (18.70 oz)
		Material: PC + ABS
	Mounting	☐ Ceiling mount ☒ Wall mount ☐ Other: tabletop
	Environmental Requirements	Operating temperature: 0 to 55 °C (32 to 131 °F)
		Operating humidity: 5% to 95% RH, non-condensing
Compliance and Package Contents	Regulatory Certifications	Ingress protection: IP66
		European Union: CE EMC and RoHS
		United States: FCC
	Environmental Compliance	California: Proposition 65
		China: CQC
	Package Contents	RoHS compliant
	Package Contents	Camtells Mark device × 1; power adapter × 1; mounting base/bracket × 1;
		installation guide × 1; notice label × 1