

MS-4K81-12TR

Solutions

4K Ultra-Wide Angle AI Tracking PTZ Video Camera (Ambarella M22)



Key Features:

- **4K UHD**
Sony 1/2.8' IMX 415 sensor with up to 851Mpixels for high performance 4K (3840x2160) video output, supporting downwards compatibility for 1080p & 720p
- **Ambarella M22 Solution**
Ambarella is a leading developer of low-power, UHD video processing semiconductors with leading edge video features used in drones and sports cameras for 60fps encoding
- **AI Tracking**
Embedded NPU hardware that uses a learning technology to extract the targets characteristics for smooth face tracking, regardless of direction
- **12x optical lens**
High-performance true 4K lens, 12X optical zoom, horizontal angle reach up to 80.8°
- **HDMI**
HDMI 1.4 support for uncompressed 4K output
- **Hibernation (stand-by) mode**
Supports low power hibernation/wake modes, with hibernation power consumption lower than 400mW
- **Local storage**
Local USB storage, for direct recoding of video and audio
- **Low illumination performance**
High performance CMOS sensor with a 2D and 3D noise reduce algorithm to dramatically reduce image noise in low light environments, resulting in clear and sharp imagery
- **Multiple interfaces**
HDMI 1.4 and 3G-SDI, with effective transmission distances over 150m (1080p@30fps)
- **Remote control**
Control via: RS-232, Network or USB
- **Built-in gravity sensor**
Support head-up/head-down (ceiling) installations
- **Smart exposure**
Auto exposure adjustment according to pre-defined scenarios for high quality video output

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From ideas to reality.

Technical Specifications:

Camera specification	
Video Output	4K@60fps, 4K@50fps, 4K@30fps, 4K@25fps, 4K@29.97fps, 1080p@60fps, 1080p@50fps, 1080i@60fps, 1080i@50fp, 1080p@30fps, 1080p@59.94fps, 1080i@59.94fps, 1080p@29.97fps, 720p@60fps, 720p@59.94fps
Sensor	1/2.8 Inch, CMOS, effective pixels: 8.4MP
Scanning Mode	Progressive
Lens	12x, f = 3.47mm ~41.65mm, F 1.84 ~ F 3.72
Digital Zoom	16x
Minimal Illumination	0.5Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, Specified Color Temperature
Backlight Compensation	Supported
Digital Noise Reduction	2D & 3D Digital Noise Reduction
Video S/N	≥55dB
Horizontal Angle of View	80.8° ~ 7.5°
Vertical Angle of View	49.9° ~ 4.3°
Horizontal Rotation Range	±170°
Vertical Rotation Range	-30° ~ +90°
Pan Speed Range	1.7° ~ 100°/s
Tilt Speed Range	1.7° ~ 69.9°/s
H & V Flip	Supported
Image Freeze	Supported
PoE	Supported
Number of Presets	255
Preset Accuracy	0.1°
Power Consumption	18W
Size	223 x 154.8 x 165 (mm)
Net Weight	1.8kg

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Technical Specifications:

USB Features (USB3.0)	
Operate System	Windows 7, Windows 8, Windows 10, Mac OS X, Linux, Android
Color System / Compression	YUY2 / H.264 / MJPEG
Video Format	YUY2 : Max support 1080p@30fps H.264 AVC: Max support 2160p@60fps H.264 SVC: Max support 2160p@60fps MJPEG: Max support 1080p@60fps
Audio on USB	Supported
USB Video Communication Protocol	UVC 1.1~1.5
Network Features	
Video Compression	H.265 / H.264 / MJPEG
Video Stream	Main Stream, Sub Stream (see below supported resolutions)
Main Stream Resolution	3840x2160, 1920x1080, 1280x720, 1024x576
Sub Stream Resolution	720x576, 720x480, 320x240
Video Bit Rate	32kbps~10.2Gbps
Bit Rate Type	Variable Rate, Fixed Rate
Frame Rate	50Hz: 1fps~50fps, 60Hz:1fps~60fps
Audio Compression	AAC~G711
Audio Bit Rate	48Kbps, 64Kbps, 96Kbps, 128Kbps
Supported Protocols	NDI® HX, TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast

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Technical Specifications:

Input/Output Interface	
HDM output	1x HDMI version 1.4 Video format: 4K@25/30fps; 1080p@25/30/50/60/59.94/29.97fps; 1080i@50/60/59.94/29.97fps, 720p@25/30/50/60fps
SDI-3G output	1x 3G-SDI: BNC type, 800mVp-p, 75Ω, to SMPTE 424M standard Video format: 1080p@25/30/50/60/59.94/29.97fps; 1080i@50/60/59.94/29.97fps; 720p@50/60fps
Network Interface	1x RJ45: 10M/100M/1000M Ethernet Interface
USB Interface	1x USB2.0, Type-C, 4K60 (H.264), 1080p30 (YUY2), 1080p60 (MJPEG)
Communication Interface	1x RS-232 In: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA/Pelco-D/Pelco-P 1x RS-232 Out: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA network use only
RESTORE button	Supported
Power Jack	JEITA type (DC in 12V)
Generic Specification	
Installation	Head-up / Head-down
PoE	Supported
LED status display	Supported
Power indicator	Blue
Status Indicator	Green
IR remote	Support (36KHz, max 7 meters)
Input voltage	DC 12V / PoE
Input current	1.5A
Working temperature	0°C ~ 40°C
Storage Temperature	-40°C ~ 60°C