

HWT-M2241-10-ELI-E2(8-32mm)(4mm)

1T 4MP Dual-Lens AI Bullet Camera



Features

- ▶ 1TOPS computing power
- ▶ Supports omni-data structuring, multi-algorithm switchover, behavior analysis, crowd flow analysis, target and person detection, object (motor vehicle, non-motorized vehicle, and pedestrian) classification, vehicle recognition, vehicle event detection, and traffic flow statistics
- ▶ Supports backlight adaptation and overcast adaptation
- ▶ Wide-angle prime lens: 1/2.7" CMOS sensor; zoom lens: 1/1.8" CMOS sensor
- ▶ Online loading and upgrade of algorithms
- ▶ 120 dB super wide dynamic range (WDR), ensuring that both foreground and background objects are clearly identified in environments with sharp light contrast
- ▶ Supports switchover among multiple algorithms
- ▶ Supports omni-data structuring

Technical Specifications

Model		HWT-M2241-10-ELI-E2(8-32mm)(4mm)				
Major Specifications						
Main control	Computing power	1TOPS				
	Memory	DDR4 1.0 GB				
	Flash type	eMMC (primary)+SPI NAND flash (secondary) 8320.0 MB				
	Max capacity	MicroSD card slot that supports microSDHC/microSDXC; maximum memory card capacity: 256 GB				
Camera	Focal length	Primelens:4mm Zoomlens:8-32mm				
	Max Aperture	Wide-angle prime lens: F1.0 Zoom lens: F1.63 (W) to F1.68 (T)				
	Image sensor	Wide-angle prime lens: 1/2.7" CMOS sensor; zoom lens: 1/1.8" CMOS sensor/Wide-angle prime lens: 2MP: 1920 (H)*1080 (V) Zoom lens: 4MP: 2560 (H)*1440 (V)				
	Angle of view	Prime lens: 87° x 46.2° Zoom lens: Horizontal: 15.1° (T) to 39.9° (W); vertical: 8.5° (T) to 21.8° (W) Field of view (FoV) deviation: ±5%				
	IR range	60m				
	Illumination distance	20m				
	Digital zoom/Optical zoom	16X/4X				
	DORI (Complied to the EN 62676-4)		D(m)	O(m)	R(m)	I(m)
		W(4mm)	53.3	21.5	10.7	5.3
W(8-32mm)		106.7	43.0	21.3	10.7	
T		426.7	172.0	85.3	42.7	
Intelligence						
Target/Body	Target	Target detection/Target enhancement/Target attribute recognition				
	Target recognition	Supported				
	Person	Person detection/Personal attribute recognition				
Vehicle	Vehicle analysis	Vehicle color/Vehicle type/Vehicle model				
	Traffic flow statistics	Motor vehicle/Non-motorized vehicle/Pedestrian				
Other intelligences	Omni-Data Structuring	Supported				
	Behavior analysis	Fast movement/Tripwire crossing/Intrusion/Area entry or exit /Loitering				
	Crowd flow analysis	Queue length/Head counting/Crowd flow statistics				
	Non-motorized vehicle	Supported				
	Multi-algorithm switchover	Supported				
	Defocus	Supported				
	Alarm information	No SD card; SD card full; SD card error; Network disconnection; Defocus detection; IP Address Conflict Detection				
Open ecosystem						
Algorithm openness	Open OS	Supported				
Data openness	Data openness	SDK (proprietary protocol)/REST API (proprietary protocol)/GA/T 1400/GB/T 28181 (2011, 2016) /ONVIF Profile S/G/T				
Image						
	Video encoding format	MJPEG/H.264/H.265				

Codec	Video encoding channels	Triple streams
	Intelligent encoding	Extra265/264
	Video frame rate	Wide-angle prime lens: configurable (30 fps or 25 fps) Zoom lens: configurable (30 fps or 25 fps)
Image AI	Scene adaptation	Backlight adaptation/Overcast adaptation
Image ISP	Min illumination	Color: 0.0004 lux (F1.2, AGC ON, 1/30s shutter speed); B/W: 0.0001 lux (F1.2, AGC ON, 1/30s shutter speed) or 0 lux (infrared illuminator enabled)
	Day/Night mode	Supported; automatic (ICR), Color, B/W, and scheduled (default: automatic); sensitivity level: high (default), medium, and low; image triggering/internal triggering
	WDR	120 dB
	White balance	Auto/Manual/OnePush
	HLC/BLC	Supported/Supported
	Digital noise reduction	2D/3D noise reduction
	Shutter speed	Supports slow shutter. Slow shutter speed levels: 1/3, 1/4, 1/8, 1/12, 1/15 Non-slow shutter speed levels: 1/25, 1/30, 1/50, 1/60, 1/90, 1/100, 1/120, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000, 1/30000, 1/100000, custom Non-slow shutter speed levels in full intelligence or face checkpoint mode: 1/25, 1/50, 1/60, 1/90, 1/100, 1/120, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000, 1/30000, 1/100000, custom Non-slow shutter speed levels in full intelligence or micro checkpoint mode: 1/100, 1/120, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000, 1/30000, 1/100000, custom Default: 1/25 Full intelligence mode: Slow shutter is not supported. Face checkpoint: 1/100; Micro checkpoint: 1/250. Face checkpoint: 1/100 Micro checkpoint: 1/250 Behavior analysis: 1/25
	Signal-to-Noise Ratio(SNR)	>45dB
	Primary stream resolution	Wide-angle prime lens: 1920×1080(1080P),1280×720(720P) Zoom lens: 2560 x 1440 (4MP), 2304 x 1296 (3MP), 1920 x 1080 (1080p), 1280 x 720 (720p)
	Secondary stream resolution	Wide-angle prime lens: Secondary stream 1: 720 x 576 (PAL), 720 x 480 (NTSC), 352 x 288 (PAL), 352 x 240 (NTSC) Secondary stream 2: 352 x 288 (PAL), 352 x 240 (NTSC) Zoom lens: Secondary stream 1: 720 x 576 (PAL), 720 x 480 (NTSC), 352 x 288 (PAL), 352 x 240 (NTSC) Secondary stream 2: 352 x 288 (PAL), 352 x 240 (NTSC)
Video bit rate	Only for H.264 and H.265: 1080P~4K 512Kbps ~ 16Mbps 720P 384Kbps ~ 8Mbps D1 256K ~ 4Mbps CIF 32K ~ 1Mbps	
Smart Illumination	Supported	
Optical Defogging/Algorithm-assisted Defogging	Not Supported/ Supported	
EIS	Supported. Sensitivity levels are not supported.	

Audio		
Audio	Audio Encoding Format	G.711a/G.711u/G.726/OPUS
	Audio sampling rate	G.711a/G.711u/G.726: 8 kHz OPUS: 8/12/16/24/48 kHz
	Audio bit rate	G.711a/G.711u: 64 kbit/s G.726: configurable (16/24/32/40 kbit/s) OPUS: configurable (16/24/32/40/64/96/128/160/192/224/256/288 kbit/s)

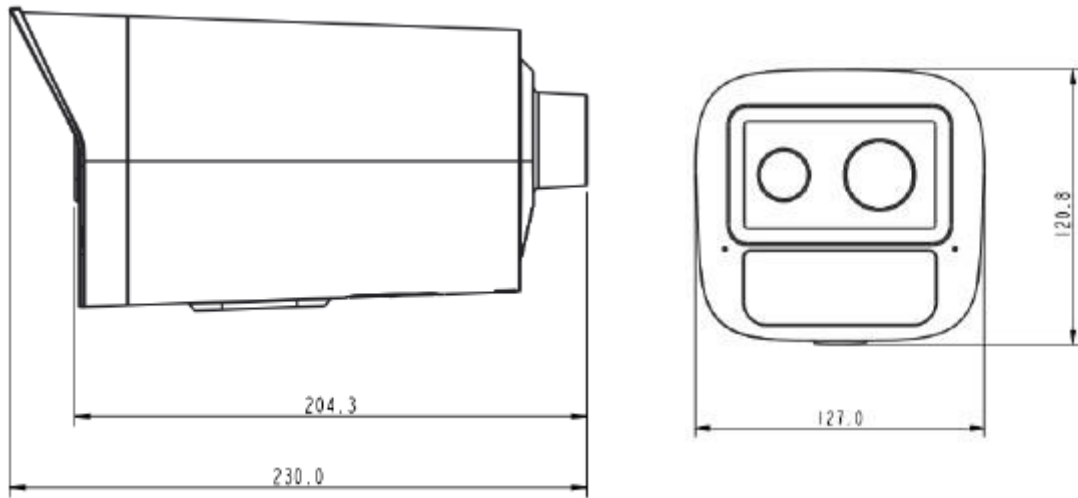
Networking		
Network transmission	Protocols supported by IPv4	TCP, IPv4, UDP, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1X, QoS, SMTP, and PPPOE; Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.
	Protocols supported by IPv6	HTTPS, RTP, RTCP, Onvif, RTSP, IPv6, ICMPv6, DHCPv6

Security		
Data security	Media security	Supports web- or SDK-based media stream encryption; supports a maximum of two channels of encrypted media streams; media stream encryption and full intelligence, target recognition, or image upload through SFTP/FTP cannot be enabled at the same time; after the intelligent analysis function is enabled, only one-channel stream encryption is supported; supports encrypted data storage on SD cards.
	Video digital watermark	Supported
	Image digital watermark	Supported
Service security	User rights	Three user roles: administrator, advanced operator, and common operator
	Security mode	User name and password authentication, 802.1X authentication, and HTTPS digital certificate
	Secure boot	Supported

Port	
Storage port	MicroSD card slot that supports microSDHC/microSDXC; maximum memory card capacity: 256 GB
Alarm port	Does not support input; supports 1-channel output.
Network port	One RJ45 10M/100M adaptive Ethernet port
Communication serial port	RS-485 port
Audio port	Supported (one-channel LINE IN)/Supported (one-channel LINE OUT)

General Specifications	
Power type	12 V DC and PoE (IEEE 802.3at)
Power consumption	Maximum:12.5W, typical:5W
Operating temperature	-30°C to +60°C
Operating humidity	5% to 95% (non-condensing)
Surge protection	4 kV
IP rating	IP67
Equipment Anti Corrosion	Class C corrosion resistance
IK rating	IK10
Weight	Net weight 1.85 kg; Gross weight 2.15 kg
Dimensions	Device dimensions 176.3 mm x 127 mm x 119.3 mm; Package dimensions 285 mm x 184 mm x 156 mm

Dimensions



Recommended Accessories



ACC3211



ACC3282



ACC3231

HOLOWITS Contact

Address : 6 Temasek Boulevard, 29th Floor, Suntec Tower Four, Singapore 038986

Web : www.hollowits.com

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