

## HWT-M2241-10-QL

2T 4MP Multi-Algorithm Bullet Camera



### Features

- ▶ 2 TOPS computing power
- ▶ Supports omni-data structuring, multi-algorithm switchover, behavior analysis, crowd flow analysis, target detection, person detection, object classification, vehicle detection, vehicle event detection, and traffic flow statistics
- ▶ Supports backlight adaptation and overcast adaptation
- ▶ 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
- ▶ Supports switchover among multiple algorithms
- ▶ Supports omni-data structuring

## Technical Specifications

Model		HWT-M2241-10-QL			
Major Specifications					
Main control	Computing power	2 TOPS			
	Memory	DDR4 2.0 GB			
	Flash type	eMMC (secondary) + SPI NAND flash (primary) 8704.0 MB			
	Max capacity	MicroSD card slot that supports microSDHC/microSDXC; maximum memory card capacity: 256 GB			
Camera	Focal length	12-55mm			
	Max Aperture	F1.34(W)-F1.51(T)			
	Image sensor	1/1.8" CMOS/4MP 2560(H)*1440(V)			
	Lens aperture type	P-iris (DC iris+Hall sensor)			
	Angle of view	Horizontal:9.2°(T) to 40.3°(W);Vertical:5.3°(T) to 22.8°(W)			
	Illumination distance	30m			
	Digital zoom/Optical zoom	16X/4.5X			
	DORI (Complied to the EN 62676-4)		D(m)	O(m)	R(m)
W	165.5	66.7	33.1	16.6	
T	758.6	305.9	151.7	75.9	
Intelligence					
Target/Body	Target	Target detection/Target enhancement/Target attribute recognition			
	Target recognition	Supported			
	Person	Person detection/Personal attribute recognition			
Vehicle	License plate recognition	License plates from the Chinese Mainland			
	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)			
Image					
Codec	Video encoding format	MJPEG/H.264/H.265			
	Video encoding channels	Triple streams			
	Intelligent encoding	Extra265/264			

	Video frame rate	Configurable (25 fps or 30 fps)
Image AI	Scene adaptation	Backlight adaptation/Overcast adaptation
	Min illumination	Color: 0.001 lux (F1.2, AGC ON, 1/30s shutter speed); B/W: 0.0001 lux (F1.2, AGC ON, 1/30s shutter speed)
Image ISP	Day/Night mode	Supported; automatic (ICR), color, B/W, and scheduled (default: color); sensitivity level: high (default), medium, and low; image triggering/internal triggering
	WDR	120db
	White balance	Auto/Manual/OnePush
	HLC/BLC	Supported/Supported
	Digital noise reduction	2D/3D noise reduction
	Shutter speed	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	2560×1440(4MP),2304×1296(3MP),1920×1080(1080P),1280×720(720P)
	Secondary stream resolution	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	Not 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)

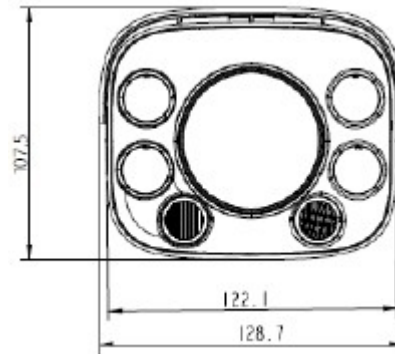
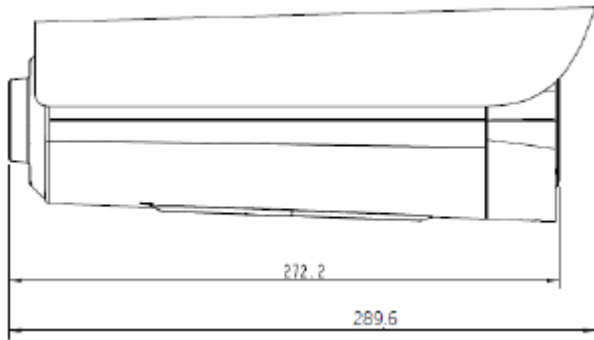
Networking		
Network transmission	Protocols supported by IPv4	TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1x, QoS, SMTP, and PPPoE. Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.
	Protocols supported by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

Security		
Data security	Media security	Stream encryption using the AES128/192/256 encryption algorithm
	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
	System intrusion detection	Supported

Port	
Storage port	MicroSD card slot that supports microSDHC/microSDXC; maximum memory card capacity: 256 GB
Alarm port	2 input port and 1 output port
Network port	One RJ45 10M/100M adaptive Ethernet port
Communication serial port	RS-485 port
Audio port	Supported (one-channel LINE IN or one-channel external MIC)/Supported (one-channel LINE OUT)

General Specifications	
Power type	AC24V, POE (IEEE 802.3at)
Power consumption	Maximum: 21.7W, typical: 4.8W
Operating temperature	-40°C to +60°C (illuminator disabled); -40°C to +40°C (illuminator enabled)
Operating humidity	5% to 95% (non-condensing)
Surge protection	6kV
IP rating	IP66
Equipment Anti Corrosion	Class C corrosion resistance
IK rating	IK10
Weight	Net weight 2.36kg; Gross weight 2.77kg
Dimensions	Device dimensions 289.6mm×128.7mm×107.5mm; Package dimensions 374mm×200mm×142mm

## Dimensions



## Recommended Accessories



ACC3280



ACC3211



ACC3282



ACC3231

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