

## HWT-M2141-10-EL(2.8-12mm)

1T 4MP Softlight 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
- ▶ 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-M2141-10-EL(2.8-12mm)				
Major Specifications						
Main control	Computing power	1TOPS				
	Memory	DDR3 1.0 GB				
	Flash type	SPI NAND FLASH 512.0 MB				
	Max capacity	MicroSD card slot that supports microSDHC/microSDXC; maximum memory card capacity: 256 GB				
Camera	Focal length	2.8-12mm				
	Max Aperture	F1.9(W)-F2.8(T)				
	Image sensor	1/1.8" CMOS/4MP 2560(H)*1440(V)				
	Lens aperture type	Fixed iris				
	Angle of view	W:102°(Horizontal)*52.0°(Vertical) T:39°(Horizontal)*22°(Vertical)				
	Illumination distance	15m				
	Digital zoom/Optical zoom	16X/4X				
	DORI (Complied to the EN 62676-4)		D(m)	O(m)	R(m)	I(m)
		W	37.3	15.1	7.5	3.7
		T	160.0	64.5	32.0	16.0
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						
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: 0.005 lux (F1.2, AGC ON, 1/30s shutter speed); B/W: 0.0025 lux (F1.2, AGC ON, 1/30s shutter speed)
	Day/Night mode	Supported; automatic (ICR), color (default), B/W, and scheduled Sensitivity level: high (default), medium, and low Image triggering /Internal triggering
	WDR	120db
Image ISP	White balance	Auto/Manual/OnePush
	HLC/BLC	Supported/Supported
	Digital noise reduction	2D/3D noise reduction
	Shutter speed	The 1/3s to 1/68250s drop-down list box is added. The time can be manually set to 1/3, 1/4, 1/8, 1/12, or 1/15. Non-slow shutter level: 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; The default value is 1/100 for face checkpoint mode, 1/250 for micro checkpoint mode, and 1/25 for behavior analysis.
	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	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.726:8K OPUS:8K/12K/16K/24K/48K
	Audio bit rate	G.711a/G.711u:64kbps G.726:16 kbit/s, 24 kbit/s, 32 kbit/s, or 40 kbit/s 16/24/32/40/64/96/128/160/192/224/256/288Kbps: configurable

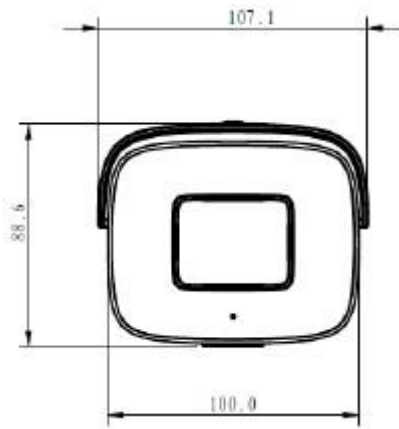
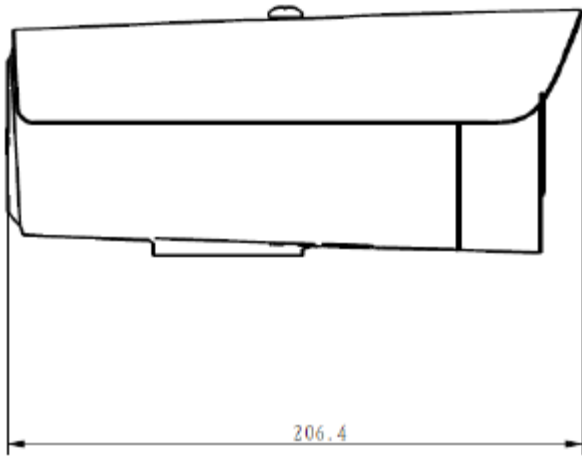
Networking		
Network support	1+ N	Supported
Network transmission	Protocols supported by IPv4	TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1X, QoS, SMTP, and PPPoE. Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.
	Protocols supported by IPv6	HTTPS,RTP,RTCP,RTSP,Onvif,IPv6,ICMPv6,DHCPv6

Security		
Data security	Media security	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
	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	DC12V,PoE(IEEE 802.3at)
Power consumption	Maximum:11.4W,typical:3.6W
Operating temperature	-30°C to +55°C (illuminator disabled) -30°C to +40°C (illuminator enabled)
Operating humidity	5% to 95%(non-condensing)
Surge protection	4kV
IP rating	IP67
Equipment Anti Corrosion	Class C corrosion resistance
Weight	Net weight 1005g;Gross weight 1196g
Dimensions	Device dimensions 206mm×108mm×89mm;Package dimensions 117mm×141mm×296mm

## Dimensions



## Recommended Accessories



ACC3217



ACC3285

ACC3233

## HOLOWITS Contact

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