

HWT-M2141-10-ELI-S (2.8–12mm)

**Class D Anti-corrosion 4MP IR/White Light
AI Bullet Camera**



Features

- ▶ 1 TOPS computing power
- ▶ Supports omni-data structuring, multi-algorithm switchover, behavior analysis, crowd flow analysis, target detection, person detection, object (motor vehicle, non-motorized vehicle, and pedestrian) classification
- ▶ Backlight adaptation and overcast adaptation
- ▶ 1/1.8" CMOS sensor
- ▶ 120 dB super wide dynamic range (WDR), ensuring that both foreground and background objects are clearly identified in environments with sharp light contrast
- ▶ Class D corrosion resistance
- ▶ Support video quality diagnosis, including signal loss detection, snow noise detection, stripe noise detection, color cast detection, image freezing detection, gain imbalance detection and image shaking detection

Technical Specifications

Product Model HWT-M2141-10-ELI-S (2.8–12 mm)

Major Specifications

Main control	Computing power	1 TOPS				
	Memory	DDR4 1.0 GB				
	Flash	SPI NAND Flash 512 MB				
Camera	Focal length	2.8–12 mm				
	Max f-number	F1.2 (W) to F2.3 (T)				
	Image sensor	1/1.8" CMOS; 4MP 2560 (H) x 1440 (V)				
	Iris type	Fixed iris				
	Angle of view	W: 102° (horizontal) x 52.0° (vertical); T: 39° (horizontal) x 22° (vertical)				
	Max IR range	50 m				
	Max white light range	30 m				
	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	

Intelligent Analysis

Target/Body	Target	Target detection, target image enhancement, and target attribute recognition			
	Target recognition	Supported			
	Person	Person detection and personal attribute recognition			
Others	Omni-data structuring	Supported			
	Behavior analysis	Fast movement detection, tripwire crossing detection, intrusion detection, area entry/exit detection, and loitering detection			
	Crowd flow analysis	Queue length detection, head counting, and crowd flow statistics			
	Object classification	Object classification and cyclist attribute recognition			
	Multi-algorithm switchover	Supported			
	Defocus detection	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), RESTful API (proprietary protocol), GA/T 1400, and GB/T 28181 (2011 and 2016)/ONVIF Profile S/G/T/M

Image

Codec	Video encoding format	MJPEG/H.264/H.265
	Intelligent encoding	SuperCoding/Extra265/264
	Video frame rate	Configurable (25 fps or 30 fps)

Image AI	Scene adaptation	Backlight adaptation and overcast adaptation
ISP	Minimum 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)
	Day/Night mode	Supported; automatic ICR, color (default), B/W, and scheduled; sensitivity levels: high (default), medium, and low; Image triggering/Internal triggering
	Wide dynamic range (WDR)	120 dB
	White balance	Auto/Manual/OnePush
	HLC/BLC	Supported/Supported
	Digital noise reduction (DNR)	2D/3D noise reduction
	Shutter speed	shutter: 1 / 25 - 1 / 100000; Default value: shutter limit: 1/25; shutter value: 1/25; Behavior analysis default value: shutter limit: 1/25, shutter value: 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: 720×576(PAL), 720×480(NTSC), 352×288(PAL), 352×240(NTSC); Secondary stream: 352×288(PAL), 352×240(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
	Image stabilization	Supported. Sensitivity levels are not supported.

Audio		
Audio	Audio Encoding Format	G.711a/G.711u/G.726/OPUS/AAC
	Audio sampling rate	G.711a/G.711u/G.726: 8K OPUS: 8K/12K/16K/24K/48K AAC: 8K/16K/22.05K/24K/32K/44.1K/48K
	Audio bit rate	G.711a/G.711u:64kbps;G.726:16, 24, 32, and 40 kbit/s are configurable. OPUS:16/24/32/40/64/96/128/160/192/224/256/288Kbps is configurable. AAC: 8 kbit/s sampling rate, 16 kbit/s, 22 kbit/s, 24 kbit/s, 32 kbit/s, 48 kbit/s, 24/32/48/64/96kbps 22.05/24K/32K sampling rate, 32/48/64/96/128kbps 44.1K/48K sampling rate, 48 kbit/s, 64 kbit/s, 96 kbit/s, 128 kbit/s, or 256 kbit/s

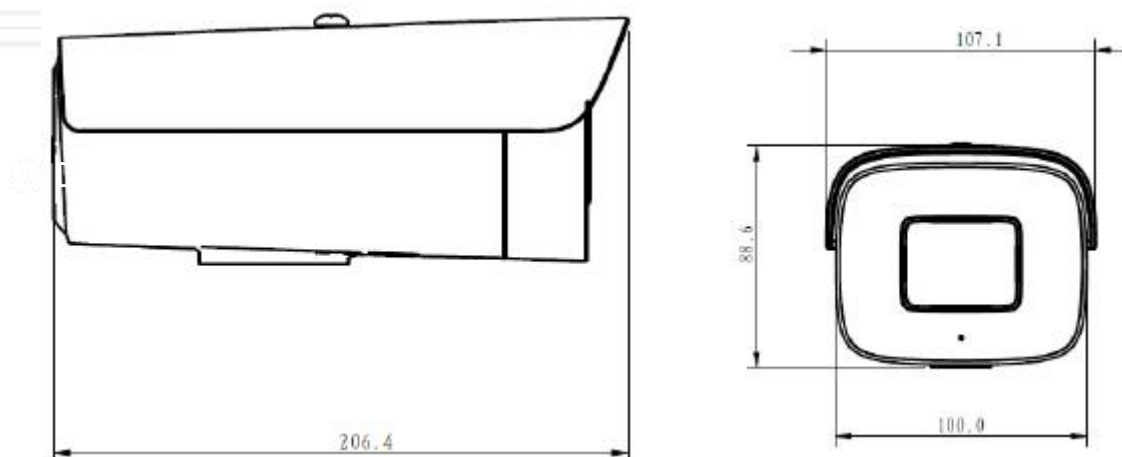
Networking		
Network transmission	Protocols supported by IPv4	TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1X, QoS, SMTP, and PPPoE. Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.
	Protocols supported by IPv6	HTTPS, RTP, RTCP, RTSP, ONVIF, IPv6, ICMPv6, and DHCPv19

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 storage of data in SD cards.
	Video digital watermark	Supported
	Image digital watermark	Supported
Service security	User role	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. including botnet detection, network adapter promiscuous mode detection, illegal super account detection, system sensitive file detection, rootkit detection, program trust list, and mining malicious process detection.

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

General Specifications	
Power supply	12 V DC and 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	4 kV
IP rating	IP67
Corrosion resistance class	Class D
Weight	Net weight: 1005 g; gross weight: 1196 g
Dimensions (H x W x D)	Product dimensions: 89 mm x 108 mm x 206 mm; package dimensions: 117 mm x 141 mm x 296 mm

Dimensions



Recommended Accessories



ACC3281



ACC3231



ACC3216

HOLLOWITS Contact

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

Web : www.hollowits.com

Copyright 2022. All rights reserved © HOLLOWITS TECHNOLOGIES PTE. LTD.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of HOLLOWITS TECHNOLOGIES PTE. LTD.

General Disclaimer

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purposes only and constitutes neither an offer nor an acceptance. HOLLOWITS may change the information at any time without notice.



Product selector

Scan the QR code on the right to view and compare specifications of HOLLOWITS products and select the best camera for you.