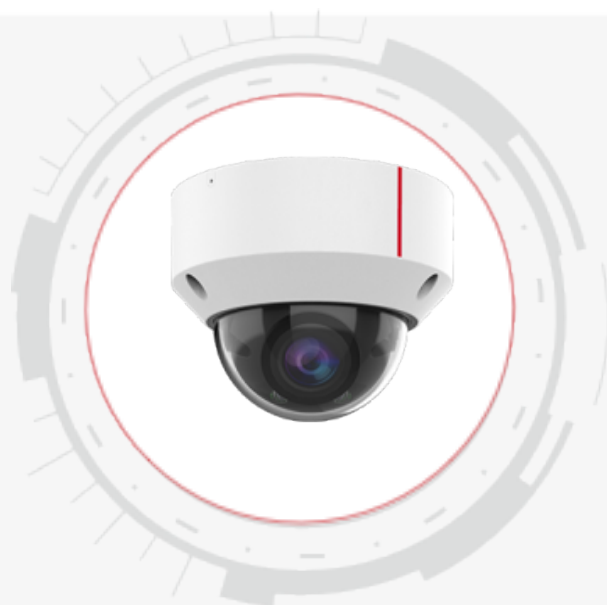# HWT-D3220-10-SIU

1T 2MP AI IR Fixed Dome Camera

Indoor Application

Features

- 1TOPS computing power

- Supports multi-algorithm switchover, behavior analysis, crowd flow analysis, target detection, person detection, object (motor vehicle, non-motorized vehicle, and pedestrian) classification, vehicle recognition, vehicle event detection, and traffic flow statistics

- Supports backlight adaptation, overcast adaptation, and speed adaptation

- 1/2.7" 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

⚙ Technical Specifications

Model	HWT-D3220-10-SIU				
Major Specifications					
Main control	Computing power	1TOPS			
	Memory	DDR3 0.5 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	F1.6			
	Image sensor	1/2.7" CMOS/2MP 1920(H)*1080(V)			
	Lens aperture type	Fixed iris			
	Angle of view	Horizontal: 36° (T) to 94° (W); vertical: 20° (T) to 50° (W)			
	IR range	30m			
	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 attribute recognition
	Target recognition	Supported
	Person	Person detection
Vehicle	Vehicle analysis	Vehicle color/Vehicle type/Vehicle model
	Traffic flow statistics	Motor vehicle/Non-motorized vehicle/Pedestrian
Other intelligences	Behavior analysis	Fast movement/Tripwire crossing/Intrusion/Area entry or exit /Loitering/Battery Vehicle Detection
	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 (60 fps, 50 fps, 30 fps, or 25 fps)

Image ISP	Image AI	
	Scene adaptation	Backlight adaptation/Overcast adaptation/Speed adaptation
	Min illumination	Color: 0.002 lux (F1.6, AGC ON); B/W: 0.001 lux (F1.6, AGC ON) or 0 lux (infrared illuminator enabled)
	Day/Night mode	Supported; automatic (ICR)/Color/B/W (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	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	1920×1080(1080P),1280×720(720P)
	Secondary stream resolution	Secondary stream 1:1920 x 1080 (1080p), 1280 x 720 (720p), 720 x 576 (PAL), 720 x 480 (NTSC) Secondary stream 2:720 x 576 (PAL), 720 x 480 (NTSC), 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/Not 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

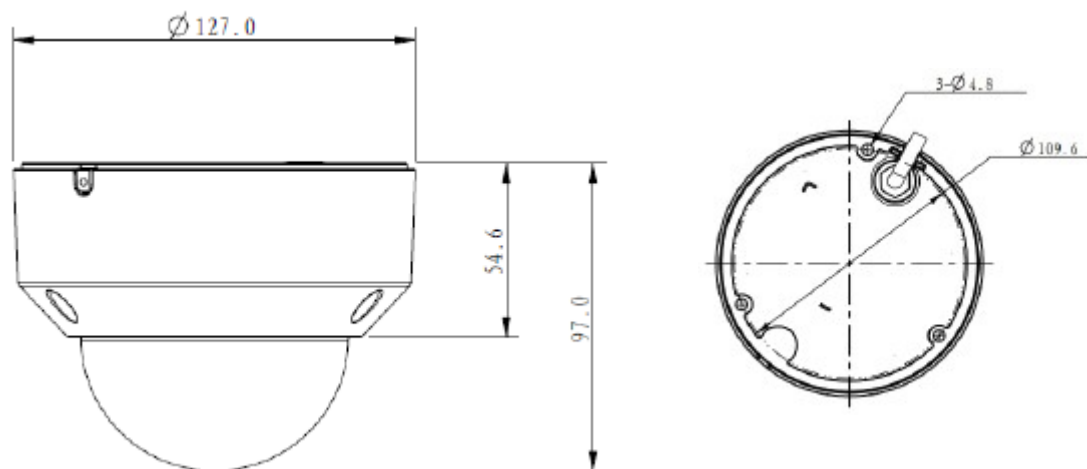|		
Networking		
Network transmission	Protocols supported by IPv4	TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1x, QoS, and PPPoE. Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.
	Protocols supported by IPv6	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; supports encrypted data storage on SD cards
	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 ports and 1output port
Network port	One RJ45 10M/100M adaptive Ethernet port
Communication serial port	RS-485 port
Audio port	Supported (one-channel LINE IN and one-channel built-in MIC)/Supported (one-channel LINE OUT)

General Specifications	
Power type	12 V DC and PoE (IEEE 802.3af)
Power consumption	Maximum: 10 W; typical: 3.5 W
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 0.8 kg;Gross weight 1kg
Dimensions	Device dimensions φ127 mm x 97 mm;Package dimensions 112 mm x 147 mm x 147 mm

Dimensions

Ø 127.0

54.6

97.0

3-Ø 4.8

Ø 109.6

Recommended Accessories

ACC3311

ACC3321

ACC3231