Camera	
Image Sensor	1/2.8'' Progressive Scan CMOS
Pixels	8.0 Megapixel
Min. Illumination	Color: 0.003lux @ (F1.5, AGC ON)
	B/W: 0.0003lux @ (F1.5, AGC ON); 0lux with IR
Shutter Speed	1 ~ 1/30,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	57dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / WDR / BLC / HLC
Lens	
Focal Length	4.5 ~ 135mm, 30x optical
Zoom Speed	Approx 3s (Optical)
Angle of View	67.8°~ 2.77° (Wide~Tele)
Min. Object Distance	1000 ~ 1500mm (Wide~Tele)
Max. Aperture Ratio	F1.6(Wide) / F4.4 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	4pcs IR LED Array
IR Distance	40-80m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -15° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 30°/s; Pan preset speed: 50°/s
	Tilt manual speed: 0.1° ~ 30°/s; Tilt preset speed: 50°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Preset	256
Patrol	8 Patrols scheme, up to 32 presets per patrol
Pattern Scan	4 Scan paths, each path can record 10 minutes of operation path
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Path / Preset / Pan scan / Tilt scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression	H.265 / H.264
Image Resolution	Main stream: 1080p
	Secondary stream: 720
Frame Rate	Main stream: 1080p@30fps
	Secondary stream: 720@30fps
Bitrate	64kbps ~ 16Mbps
Bitrate Control	VBR / CBR
Multi Stream	Supported
Caption	Date and time / Alarm / Direction / Customized
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Supported
ROI	Supported
Digital Noise Reduction	3D noise reduction
Digital Defog	Supported
Image Flip	Flip / Mirror
Network	
Network Protocols	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP, UPnP, 802.1x, NAT, QoS, SMTP, IPv4, IPv6 (optional)
User Interface	IPC Control (IE, firefox, Chrome)

Max. User Access	Max. 20 Users (includes 2 internal)
Wireless	2 x GSM (3G/LTE/4G) Module / Wi-Fi / Blue tooth
3G / 4G Frequency Band	FDD-LTE: B1 / B3 / B5 / B8 TDD-LTE: B38 / B39 / B40 / B41 WCDMA: B1 / B8 GSM / GPRS / EDGE: 900 / 1800MHz TD-SCDMA: B34 / B39 EVDO/CDMA: BC0 Customizable network spectrum
Wi-Fi	802.11ac/b/g/n 2.4G / 5G, Wi-Fi AP
Blue Tooth	BT 4.1
Location Technology	GPS, GLONASS (optional)
Application Programming	Onvif (Profile S, Profile G), API, CGI
Alarm	
Alarm Triggers	Network disconnect
Alarm Events	Alarm report / Text overlay / Email notice
Interfaces	
Aviation Port	4-Pin 10/100M interface, 2-Pin Charge interface
Wi-Fi	Built-in Wi-Fi module
GPS	Build-in GPS module
3G / 4G	Build-in 3G / 4G module
Blue Tooth	Bulit-in Blue Tooth module
Memory Slot	Built-in 128G Micro SD card x 2
Environmental	
Operating Temperature	Power supplied by built-in battary: -20°C ~ 60°C / -4°F ~ 140°F Power supplied by DC: -40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP67, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	Built-in 13600mAH normal temperature rechargeable lithium battery Up to 8 hours continuously working with battery in 4G Up to 10 hours continuously working with battery in Wi-Fi 12V DC ± 10%
Power Consumption	Max. 20W (IR on)
Mechanical	
Magnet	Built-in super magnet
Weight	4kg / 8.82lb (Gross Weight)
Dimensions	Φ215 × 153mm / Φ8.47'' x 6.03''
Colour	White Customizable Black
	1 x Embedded OLED Information Display
	AI functions (Face Recognition Mostly);