



The Defender R30 camera integrates long range QHD visible & VGA thermal imaging, with its robust structure, is well designed to provide early detection and vast area coverage in various scenarios like coastal, border, aviation or even counter-UAV surveillance. Powered by industry leading AI ISP and in-house machine learning algorithms, the camera acts faster with a variety of intelligent detections.

Features

Exceptional Imaging Performance

1/1.8" 4MP Sony Starvis sensor with Vmage AI ISP, presents crisp, clear images in even the most challenging lighting conditions.

Vast Area Coverage

6-300mm 50x visible zoom lens, along with 30-150mm 5x thermal zoom lens, enhance your awareness and detection range.

Fast Detection with Machine Learning

Act quicker with intelligent analytics that alert you in real-time of critical events. R30 supports various machine learning detections of fire/smoke/human/vehicle/vessel or anomalies to help you identify potential threats.

High Sensitivity Thermal Imager

VGA (640*512) Vox uncooled FPA detector with 12μm pixel pitch process, enhance identification capability under covers or minor temperature differences.

Rugged Design for Tough Environments

Robust top-load structure with IP66/TVS 6KV/lightning/surge/voltage transient protection, R30/R30L is designed for various extreme outdoor weather conditions.

Easy Maintenance and Operator Comfort

Single IP address for visible, thermal, PT control and precise positioning system with auto-tracking, offers easy-to-use experience for every operator.

Technical Specs

Visible Camera				
Image Sensor	1/1.8" STARVIS progressive scan CMOS			
Resolution	2688 x 1520, 4MP			
Lens	6~300mm, 50x motorized zoom, F1.5~4.5 Field of view: 66°x 40.3°(H x V)~1.4°x 0.8°(H x V) Near focus distance: 1~5m Zoom speed: <6.5s(W~T) Focus modes: Semi-auto/Auto/Manual/One-push			
Min. illumination	Color: 0.0005Lux, B/W: 0.0001Lux, AGC&AI-NR ON, F1.4			
Electronic Shutter Speed	1/3~1/30000s			
Noise Reduction	2D/3D			
Image Stabilization	EIS			
Day/Night	Auto(ICR)/Manual			
White Balance	Auto/Manual/ATW/Indoor/Outdoor/Sodium Lamp/Streetlight/Natural			
WDR	55dB			
Defog	E-Defog Auto/Manual			
Anti-heatwave	Auto/Manual			
Digital Zoom	16x			
DORI Ratings*	Detection	Observation	Recognition	Identification
Human (1.7 x 0.6m)	2483m	985m	497m	248m
Vehicle (1.4 x 4.0m)	5793m	2299m	1159m	579m

**The DORI standard (based on the IEC EN62676-4:2015 international standard) defines different levels of detail for detection (25PPM), observation (62PPM), recognition (125PPM), and Identification (250PPM). This table is for reference only and performance may vary depending on the environment.*

Thermal Camera			
Imager	Un-cooled FPA Vanadium Oxide microbolometer Pixel pitch: 12μm Spectral range: 8~14μm Sensitivity (NETD): <50mK		
Resolution	640 x 512, VGA		
Lens	30~150mm, 5x motorized zoom, F/0.85~F/1.2 Field of view: 14.7°x 11.7°(H x V)~2.9°x 2.3°(H x V) Zoom speed: <3s(W~T)		
Focus Modes	Semi-auto/Manual/One-push		
Color Modes	White hot, Black hot, Fusion, Rainbow, etc. 20 user-selectable		
Image Stabilization	EIS(Electronic)		
Digital Zoom	8x		
DRI Ratings*	Detection	Recognition	Identification
Human (1.7 x 0.6m)	5000m	1250m	625m
Vehicle (1.4 x 4.0m)	11666m	2961m	1458m

**The DRI distances are calculated according to Johnson criteria: detection(1.5 or more pixels), recognition(6 or more pixels), identification(12 or*

more pixels). This table is for reference only and performance may vary depending on the environment.

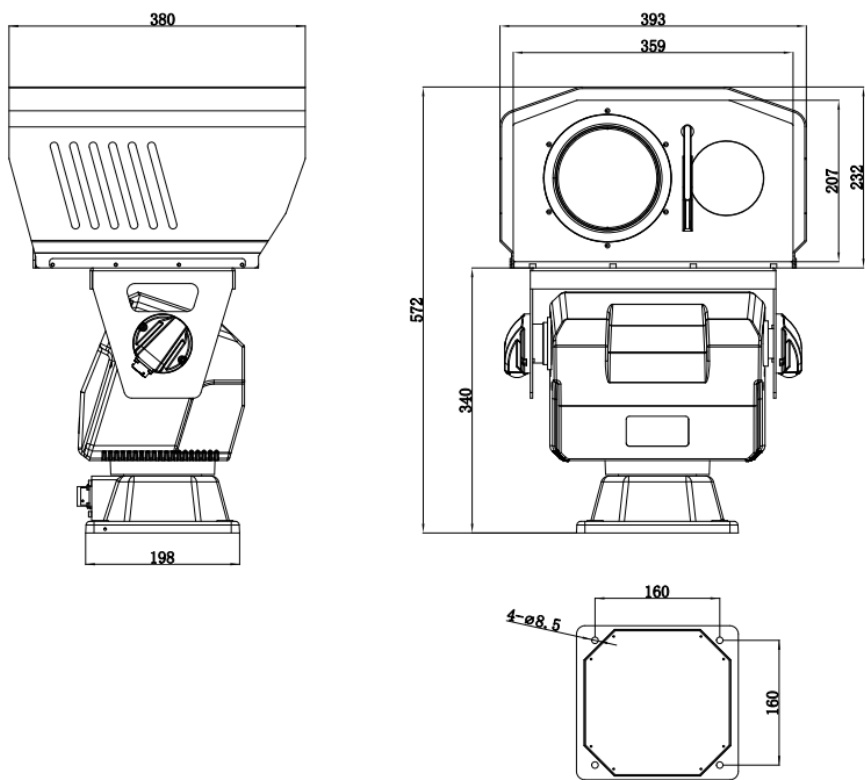
Pan/Tilt	
Pan	Range: 360° continuous rotation Speed: 0.1°~ 30°/s
Tilt	Range: -45°~+45° Speed: 0.1°~15°/s
Positioning Accuracy	0.01°
Preset	255
Tour	8, Up to 32 presets per tour
Scan	5
Pattern	5
Park	Preset/Tour/Scan/Pattern
Scheduled Task	Preset/Tour/Scan/Pattern
Power-off Memory	Support
Snap Positioning	Support
Proportional P/T to Zoom	Support
Heater/Fan	Integrated, Auto/Manual
Wiper	Integrated, Manual/Scheduled
Video and Audio	
Video Compression	H.265/H.264/H.264H/ H.264B/MJPEG
Main Stream	Visible: 25/30fps (2688 x 1520, 1920 x 1080, 1280 x 720) Thermal: 25/30fps (1280 x 1024, 1280x720)
Sub Stream	Visible: 25/30fps (704 x 576, 352x288) Thermal: 25/30fps (704 x 480)
Image Encoding	JPEG, 1~7fps (2688 x 1520)
OSD	Name, Time, Preset, Temperature, P/T Status, Zoom, Address, GPS, Image overlay, Abnormal info
Audio Compression	AAC (8/16kHz), MP2L2(16kHz)
Network	
Network Protocols	IPv4, IPv6, HTTP, HTTPS, TCP, UDP, RTSP, RTCP, RTP, ARP, NTP, FTP, DHCP, PPPoE, DNS, DDNS, UPnP, IGMP, ICMP, SNMP, SMTP, QoS, 802.1x, Bonjour
API	ONVIF(Profile S, Profile G, Profile T), HTTP API, SDK
User	Up to 20 users, 2 level: Administrator, User
Security	User authentication (ID and password), IP/MAC address filtering, HTTPS encryption, IEEE 802.1x network access control
Web Browser	IE, EDGE, Firefox, Chrome
Web Languages	English/Chinese
Storage	MicroSD/SDHC/SDXC card (Up to 1Tb) edge storage, FTP, NAS
Analytics	
Perimeter Protection	Line crossing, Fence crossing, Intrusion
Target Distinction	Human/Vehicle/Vessel Classification
Behavioral Detection	Object left in area, Object removal, Fast moving, Gathering, Loitering, Parking

Events Detection	Motion, Masking, Scene change, Audio detection, SD card error, Network disconnection, IP conflict, Illegal network access
Fire Detection	/
Smoke Detection	Support
Strong Light Protection	/
Auto Tracking	Multiple detection tracking modes
Others	Visible/Thermal Synchronized zoom
Interface	
Alarm Input	1-ch
Alarm Output	1-ch
Audio Input	1-ch
Audio Output	1-ch
Ethernet	1-ch RJ45 10M/100M
RJ485	/
General	
Casing	IP 66
Power	48V DC, typical 35, max 80w, DC48V Power adapter included TVS 6000V, Surge protection, Voltage transient protection
Operating Conditions	Temperature: -40°C~+70°C/-22°F~158°F, Humidity: <95%
Dimensions	393*573*380 mm (W×H×L)
Weight	32kg

Ordering Information

Model No.	Description
VS-PTZ4050N-8-RVU61505-J1	4MP Long Range Bispectral Thermal Positioning Camera

Dimensions



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