



The Defender P60B is a high-performance bispectral, high-speed PTZ surveillance system engineered to deliver exceptional surveillance for ultra-long-range targets exceeding 10KM. Equipped with advanced imaging systems, unparalleled optical image stabilization, and robust tracking capabilities, the Defender P60B provides reliable surveillance in the most challenging environments.

Whether mounted on offshore platforms, towering skyscrapers, or securing borders and critical infrastructure, the Defender P60B delivers clear, stable images and round-the-clock protection.

## Features

### Ultra Long-Range Surveillance

- 4MP 17-775mm super telephoto visible camera for clear and detailed long-range images.
- Max optional VGA(640x512) 30-150mm thermal imaging camera for 24/7 monitoring, regardless of lighting conditions.
- AI-ISP technology optimizes image quality, enhancing low-light performance and dynamic range, detail and color reproduction.

### Excellent OIS

- Optical image stabilization technology effectively compensates for camera shake and keeps the image stable and clear even in harsh environments.

### Comprehensive Protection

- Built-in wiper and heater for harsh weather conditions.
- IP66 protection rating for dust and water resistance.
- Conforms to ASTM B117/ISO 9227 corrosion resistance standards for durability in harsh environments.
- 6000V surge protection for equipment safety.

### High-Speed and Accurate Tracking

- Maximum speed of 100°/s for rapid target acquisition and locking.
- Minimum speed of 0.01°/s for fine adjustments.
- Ultra-high preset accuracy of 0.005° for precise tracking and positioning.

### AI Analytics

- AI-based intelligent detection, recognition, and tracking of targets for improved monitoring efficiency.

### Easy Integration

- Single IP integration of bi-spectral systems for simplified deployment.
- Supports ONVIF standard protocols for compatibility with various surveillance systems.

# Technical Specs

Visible Camera				
Image Sensor	1/1.8" STARVIS progressive scan CMOS			
Resolution	2688 x 1520, 4MP			
Lens	15-775mm, 52x motorized zoom, F2.8-8.2 Field of view: 29.1°x 16.7°(H x V)-0.5°x 0.3°(H x V) Near focus distance: 1-10m Zoom speed: <7s(Wide-Tele) Focus modes: Semi-auto/Auto/Manual/One-push			
Min. illumination	Color: 0.01Lux, B/W: 0.001Lux, AGC&AI-NR ON, F2.8			
Electronic Shutter Speed	1/1-1/30000s			
Noise Reduction	2D/3D/AI-NR			
Image Stabilization	EIS&OIS			
Day/Night	Auto(ICR)/Manual			
White Balance	Auto/Manual/ATW/Indoor/Outdoor/Sodium Lamp/Streetlight/Natural			
WDR	120dB			
Defog	Optical (NIR) + Digital			
Anti-heatwave	Auto/Manual			
Digital Zoom	16x			
DORI Ratings*	Detection	Observation	Recognition	Identification
	12320m	4889m	2464m	1232m

*\*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: <3.5s(Wide-Tele)		
Focus Modes	Semi-auto/Manual/One-push		
Color Modes	White hot, Black hot, Fusion, Rainbow, etc. 20 user-selectable		
Image Stabilization	EIS		
Digital Zoom	8x		
DRI Ratings*	Detection	Recognition	Identification
Human (1.7 x 0.6m)	6250m	1563m	781m
Vehicle (1.4 x 4.0m)	19167m	4792m	2396m

*\*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.*

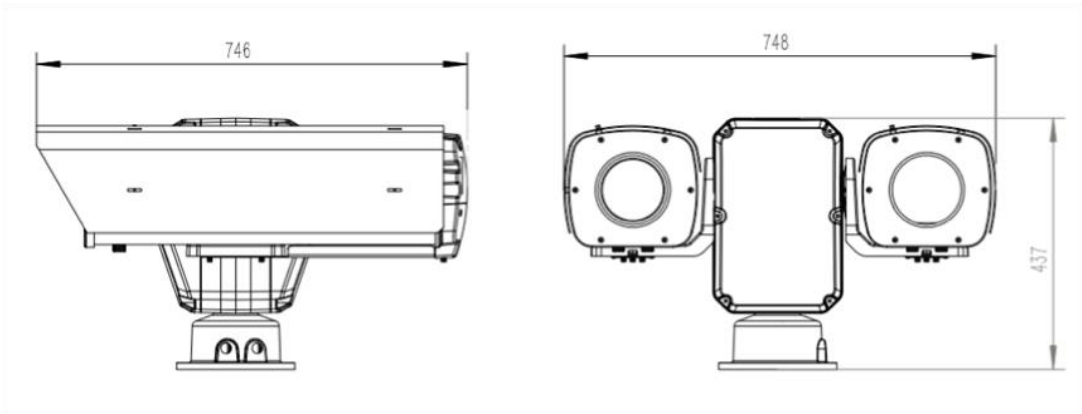
Pan/Tilt	
Pan	Range: 360° continuous rotation Speed: 0.01°-100°/s
Tilt	Range: -90° to +90° Speed: 0.01°-60°/s
Present Accuracy	0.005°
Min Rotation Resolution	0.001°
Preset	256
Tour	8, Up to 32 presets per tour
Scan	5
Pattern	5
Park	Preset/Tour/Scan/Pattern
Scheduled Task	Preset/Tour/Scan/Pattern
Power-off 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), 16fps@MJPEG Thermal: 25/30fps (1280 x 1024, 704 x 576)
Sub Stream	Visible: 25/30fps (1920 x 1080, 1280 x 720, 704 x 576/480) Thermal: 25/30fps (704 x 576, 352 x 288)
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
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	Support
Smoke Detection	Support
Strong Light Protection	Support
Auto Tracking	Multiple detection tracking modes
<b>Interface</b>	
Alarm Input	7-ch
Alarm Output	2-ch
Audio Input	1-ch
Audio Output	1-ch
Ethernet	1-ch RJ45 10M/100M
RJ485	1-ch
<b>General</b>	
Casing	IP 66, Corrosion-resistant coating: Classification society standards: ASTM B117/ISO 9227 (2000 hours)
Power	48V DC, typical 30W, max 180W, DC48V/4.8A/230W Power adapter included TVS 6000V, Surge protection, Voltage transient protection
Operating Conditions	Temperature: -40°C to 60°C/22°F to 140°F, Humidity: <90%
Dimensions	748x746x437mm (WxHxL)
Weight	60kg

# Ordering Information

Model No.	Description
VS-PTZ4052YIO-RV61505-P60B	4MP 775mm OIS Long-range Bispectral VGA Thermal High-speed Heavy-duty Positioning Camera

# Dimensions



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