

# IPEL-B12V-IRW2

## 12MP IR Bullet Network Camera



- 12MP 1/1.7" CMOS image sensor, high image definition
- H.265 & H.264, five-stream encoding support
- Outputs 12MP (4000 × 3000) @25/30 fps
- Intelligent Motion Detect and Perimeter Protection
- IVS, People Counting and Face Detection
- DWDR, Day/Night(ICR), 3DNR,AWB,AGC,BLC,
- 2.7-12mm Motorized varifocal lens
- Max. IR LEDs Length 196 ft
- 256GB Micro SD memory, IP67, IK10, PoE

## System Overview

The IPEL-B12V-IRW2 is a 12MP Ultra HD bullet camera featuring a 1/1.7" CMOS high image definition image sensor with a 2.7-12mm motorized varifocal lens. It outputs 12MP (4000 × 3000) @25/30 fps with H.265 support for optimized storage. In addition, the camera features an IR distance up to 196 feet and weatherproofed thanks to IP67 and protected with an IK10 rated housing. protection. The camera also comes equipped with a 256GB Micro SD card support for onboard storage.

This Elite series camera also sports an impressive AI suite with not only IVS and People Counting, but also Intelligent Motion Detect (iMD) and Perimeter Protection, which feature human/ vehicle recognition. This helps to drastically reduce false positive triggers. Working with other AI enabled recorders, the camera also supports Face Detection technology.

## Functions

### Starlight Technology

Featuring Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness (0.01 lux).

### Perimeter Protection

IC Realtime's Perimeter Protection features significantly improve detection accuracy. The benefits of Perimeter Protection include up to a 90% reduction in false alarms. Other advantages include a decrease in pixel count requirement for object detection, which translates into more efficiency with less strain on the system. Perimeter Protection options let you customize tripwires based on the object type and allow intelligent automation within a limited area of access such as pedestrian or vehicle-only zones. The combination of advanced AI analytics and real-time alerts maximizes efficiency & balance of the total systems capacity and resources resulting in greater surveillance system efficiency.

### iMD (Intelligent motion Detect)

This is an upgraded version of motion detection currently known as Intelligent Motion Detection (iMD). The upgraded Plus version greatly improves alarm accuracy by pre-loading a deep learning algorithm that recognizes people and vehicles. Motion detection alerts containing a human and/or vehicle intrusion event are now possible with up to 95% accuracy. Eliminate false alarms, save time and keep stress levels low knowing you're protected.

### Protection (IP67, wide voltage)

Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times. Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with unstable voltage.

### Smart H.265+

Deliver high quality video without straining the network, Smart H.265+ is the optimized implementation of H.265. The Smart H.265+ encoding technology includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing saving of up to 70% of bandwidth and storage when compared with standard H.265.

## Technical Specification

### Camera

Image Sensor	1/1.7"12 Megapixel progressive CMOS
Effective Pixels	4000 (H) × 3000 (V)
RAM/ROM	4GB/2GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
Minimum Illumination	0.01 Lux @F1.8
S/N Ratio	>56 dB
IR Distance	60m (196.9 ft)
IR On/Off Control	Auto / Manual
IR LEDs	4

### Lens

Lens Type	Motorized vari-focal				
Mount Type	φ14				
Focal Length	2.7 mm-12 mm				
Max. Aperture	F1.8				
Angle of View	Horizontal: 103°-44°, Vertical: 75°-33°				
Close Focus Distance	1.2 m (3.9 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	305 ft	121 ft	59 ft	29 ft
	T	672 ft	269 ft	134 ft	65 ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°
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### Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.264+Smart H.265+
Streaming Capability	3 Streams
Resolution	12M (4000 × 3000); 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728); 5M (2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536); 3M (2304 × 1296); 2M (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Frame Rate	Main stream: 4000 × 3000 @1-25/30 fp
	Sub stream: 704 × 576@1-25fps, 704 × 480@1-30fps
	Third stream: 1920 × 1080 @1-25/30 fps
	Fourth stream: 1920 × 1080 @1-25/30 fps
	Fifth stream: 704 × 576 @1-25 fps; 704 × 480 @1-30 fps
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kbps–16384 kbps H.265: 32 kbps–14080 kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / DWDR
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto / Manual
Noise Reduction	3D DNR

Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Flip	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

### Audio

Compression	G.711a, G.711Mu, G.726, AAC, G.723
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### Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	Pv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P;RTMP
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 240 M.)
Edge Storage	NAS; FTP; SFTP Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Certifications

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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### Interface

Video Interface	N/A
Audio Interface	1 channel input/ output (3.5mm JACK port)
RS485	1 (baud rate range: 1200 bps–115200 bps)
Alarm	Input: 3 channels in: 5mA 3V–5V DC Output: 2 channels out: 1,000mA 30V DC/500mA 50V DC

### Electrical

Power Supply	12V DC/24V AC/POE+(802.3at)
Power Consumption	<19.32W

### Environmental

Operating Conditions	–40°C to +60°C (–40°F to +140°F) /Less than 95% RH
Storage Conditions	–40°C to +60°C (–40°F to +140°F)
Ingress Protection	IP67
Vandal Resistance	IK10

### Construction

Casing	Metal + plastic
Dimensions	340.1 mm × 138.3 mm × 134 mm (13.39" × 5.44" × 5.28") (L × W × H)
Net Weight	9.11 kg (20.08 lb)
Gross Weight	11.21 kg (24.71 lb)

## AI Functions

### IVS

Basic IVS	Abandoned object; missing object
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### Perimeter Protection

Capabilities	Tripwire; intrusion; fast moving (these functions support the classification and accurate detection of vehicle and human objects); loitering detection; people gathering; parking detection
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### Face Detection

Capabilities	Face detection; track; optimization; snapshot; face enhancement; face exposure; face attribute extract;
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Performance	6 attributes: Gender, age, glasses, mask, beard; 8 Expressions: Anger, calm, happiness, sadness, disgust, surprise, confusion and fear
	Face matting setting: face, single inch photo
	Three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting; Support Duration Optimal, Non-living Filtering

### People Counting

Capabilities	Supports 4 tripwire rules configuration, people counting in 4 areas, and 4 queue management functions.
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Performance	Supports queue management, and displaying and outputting monthly/daily reports. Supports tripwire number counting, people counting in area, and displaying and outputting yearly/monthly/daily reports
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### Video Metadata

Performance Capabilities	Vehicle detection, non-motor vehicle detection, face detection, human body detection, track, optimization, snapshot, reports high quality picture
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Vehicle Attributes	License plate, vehicle type, vehicle color, and vehicle brand
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Non-Automobile Vehicle Attributes	Vehicle type, vehicle color, hat, clothing type, and clothing color
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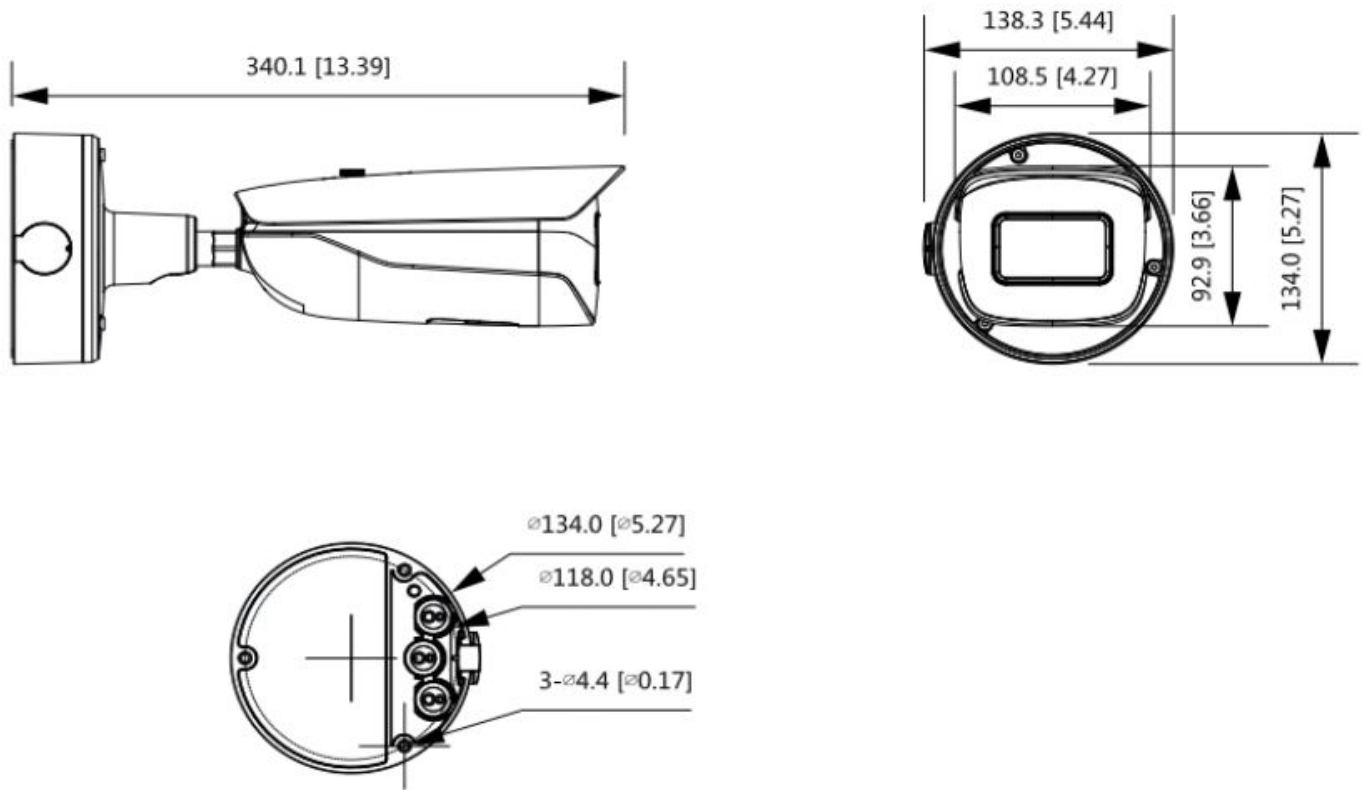
Personnel Attribute	Clothing type, trousers type, clothing color, trousers color, knapsack, hat, gender and umbrella,
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Face Attribute	Gender, age, expression, glasses, mask, and beard
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### Intelligent Search

Capabilities	Works together with AI enabled NVRs to perform refined intelligent search, event extraction and merging to event videos
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Dimensions (mm/in)



Accessories

