

# IPEL-D12V-IRW3

12MP IR AI Vandal-Proof Dome 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
- IVS, People Counting, Face Recognition and Perimeter Protection
- DWDR, Day/Night(ICR), 3DNR,AWB,AGC,BLC,
- 2.7-12mm Motorized varifocal lens
- Max. IR LEDs Length 131 ft
- 512GB Micro SD memory, IP67, IK10, PoE, ePOE

## System Overview

The IPEL-D12V-IRW3 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 131 feet and weatherproofed thanks to IP67 and protected with an IK10 rated housing. protection. The camera also comes equipped with a 512GB 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 Perimeter Protection, which features human/ vehicle recognition. This helps to drastically reduce false positive triggers. Working with other AI enabled recorders, the camera also supports Face Detection and Recognition technology with a built-in Face database.

## 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 (0.0009 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.

### Smart IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 196ft (60m).

### Protection (IP67, IK10)

Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

### 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.

### Face Recognition

IC Realtime's Face Recognition technology extracts the features of captured faces and compares them with that in user-created face database to recognize the person's identity.

## Technical Specification

### Camera

Image Sensor	1/1.7"12 Megapixel progressive CMOS
Effective Pixels	4000 (H) × 3000 (V)
RAM/ROM	8GB/4GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
Minimum Illumination	0.0009 lux@F1.6 (Color, 30 IRE) 0.0005 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
IR Distance	131.23 ft (40m)
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	F1.6				
Angle of View	H: 106°-45°; V: 77°-34°;				
Close Focus Distance	5.91 ft (1.8 m)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	287 ft	114 ft	57 ft	28 ft
	T	612 ft	244 ft	122 ft	61 ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–355°, Tilt: 0°–80°, Rotation: 0°–355°
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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 fps
	Sub stream: 1920 × 1080@1-25/30 fps
	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–12288 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 2688 × 1520 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	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP; P2P
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 340 M)
Edge Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Certifications

Certifications	FCC Part 15, Subpart B
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### Interface

Video Interface	N/A
Audio Interface	1 channel input/ output (RCA 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	12 VDC/24 VAC/PoE+ (802.3at)/ePoE
Power Consumption	Basic: 6.6 W (12 VDC); 9.3 W (24 VAC); 9.8 W (PoE+) Max. (ICR switch + IR intensity+ zoom): 18.7 W (12 VDC); 24.8 W (24 VAC); 25.2 W (PoE+) Heating: 3 W (12 VDC); 4.6 W (24 VAC); 5.47 W (PoE+)

### Environmental

Operating Conditions	–40°F to +149°F (–40°C to +65°C) /Less than 95% RH
Storage Conditions	–40°F to +149°F (–40°C to +65°C)
Ingress Protection	IP67
Vandal Resistance	IK10

### Construction

Casing	Metal + plastic
Dimensions	4.65" × Φ6.26" (118.0 mm × Φ159.0 mm)
Net Weight	2.56 lb (1.16 kg)
Gross Weight	3 lb (1.36 kg)

## AI Functions

### IVS

Basic IVS	Tripwire; Intrusion, Fast moving , Abandoned object; missing object, loitering detection; people gathering; parking detection
Advanced IVS	People Counting, Face Detection

### Perimeter Protection

Capabilities	Tripwire; Intrusion; Fast moving (These functions support the classification and detection of vehicle and human objects)
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### Video Metadata

Capabilities	Generates flow statistics for people, motor vehicles and non-motor vehicles based on the direction, and exports Reports. Motor vehicle, non-motor vehicle, face, and human body detection; snapshot; snapshot optimization; optimal face snapshot upload.
Human attributes	Top and bottom type and color, bag, hat, gender and umbrella
Motor Vehicle attributes	License plate, vehicle type, vehicle color, vehicle logo, seatbelt, smoking, and calling.
Non-Motor attributes:	Type, vehicle color, number of people, top type and color, and hat

### Parking Space Management

Capabilities	Parking Space Management: Manage outdoor and planned parking lots; manage parking spaces in multiple areas; display the total number of parking spaces and parking spaces that are available; trigger alarms based on a predefined number of vehicles.
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### People Counting

Capabilities	Tripwire: people counting and people counting in area, generating and exporting report (day/month/year); queue management, generating and exporting report (day/month); 4 rules can be set for tripwire, people counting in area and queue management
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### ANPR

Performance	The camera can recognize plate numbers of vehicles moving at speeds of up to 37 MPH (60km/h). Captures 1 direction-either incoming or departing traffic. Supports up to 10,000 blacklist and allowlist records.
Capabilities	<b>Vehicle attributes:</b> License plate, vehicle type, vehicle color. <b>Other attributes:</b> Seat belt, smoking, calling.

### AI Search

Capabilities	Works together with AI enabled NVRs to perform refined intelligent search, event extraction and merging to event videos
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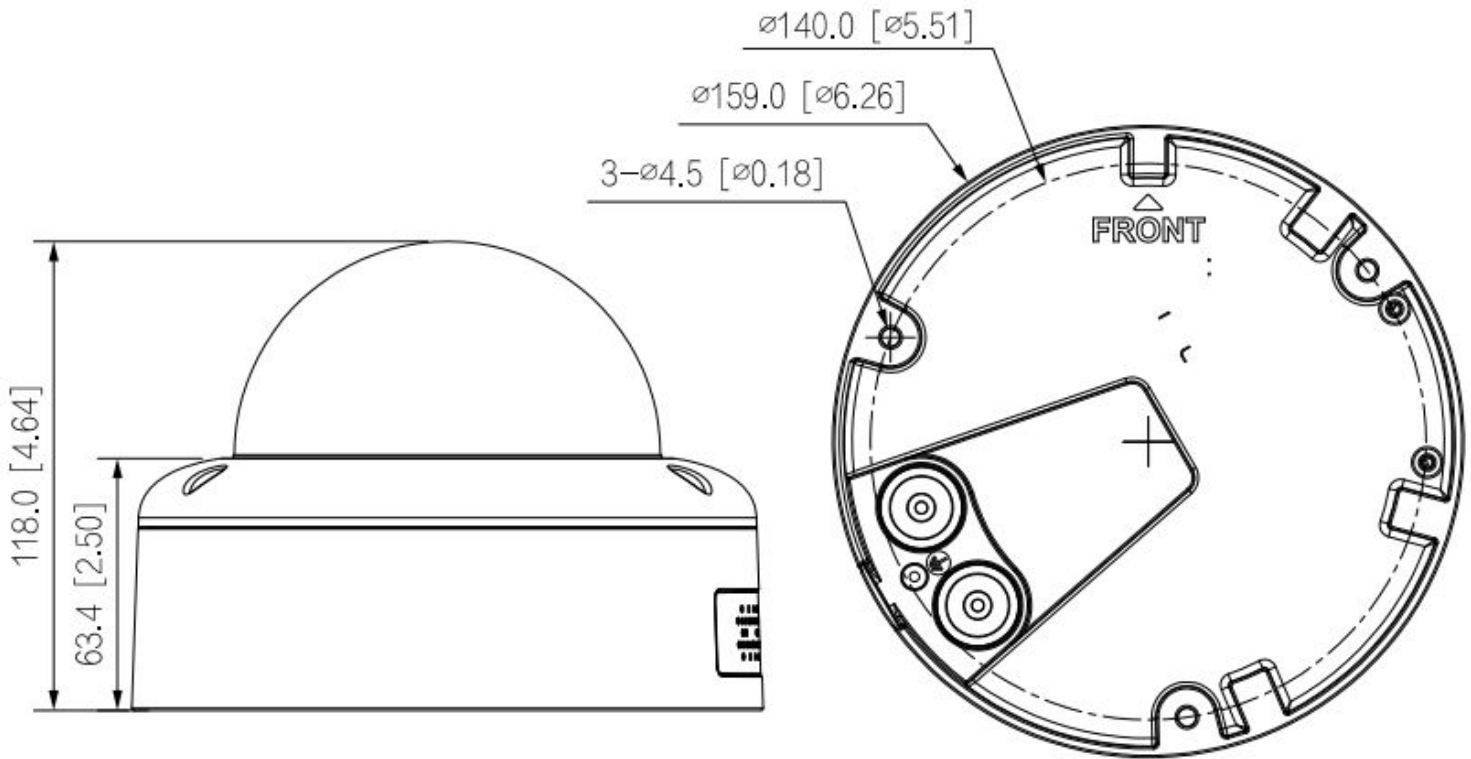
### Face Detection

Capabilities	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting
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### Face Recognition

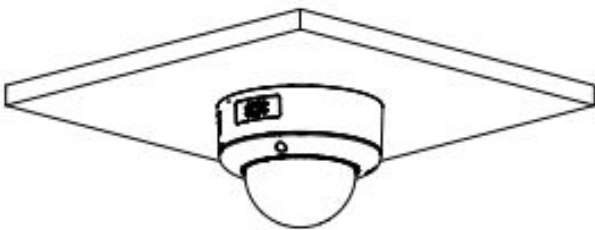
General Mode	Face detection; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions
Counting Mode	Offers advanced customer counter, filters out specified faces from the face database, and exports reports both before and after removing duplicate faces.
Stranger Mode	Detect strangers' faces (not in device's face database). Similarity threshold can be set manually.
AI Search	Supports face image search, similarity threshold can be set for each target face image.
Database	Supports adding 5 group face databases; registering person one by one or in batches; setting face similarity; and supports face comparison with the face database containing up to 200,000 face pictures.

## Dimensions (mm/in)



## Accessories

## Included mount



## MNT-JUNCTIONBOX-8

