

IPEL-B2012X-IRW3

2MP WDR IR Bullet Network Camera



- 1/2.8" 2 Megapixel progressive scan STARVIS™ CMOS
- H.264+/H.265 quad-stream encoding
- 25/30fps@1080p(1920×1080)
- Perimeter Protection, iMD, Face Detection
- 5mm ~ 60mm varifocal lens, 12x zoom
- Starlight support, Max IR LEDs Length 492ft
- Built-in Mic, 512GB Micro SD support, IP67, IK10

System Overview

IC Realtime's IPEL-B2012X-IRW3 packs our newest AI technology in a tough, rugged varifocal bullet form factor. The camera is equipped with a 1/2.8" 2 Megapixel progressive scan STARVIS™ CMOS on top of a 5.3mm ~ 64mm varifocal lens. It is capable of 30fps@1080p with Starlight support and IR distance up to 492 feet.

The real magic of the camera lies in its impressive AI features. On top of basic IVS with Tripwire and Intrusion, the camera also supports Perimeter Protection and Intelligent Motion Detect (iMD) technology which is able to recognize people and vehicle objects to help minimize false alarms. Other features include Face Detection, People Counting and Heat map.

Functions

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Protection (IP67, IK10, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), The camera complies with an IK10 impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.)

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

Environmental

Cameras operate in extreme temperature environments, rated for use in temperatures from -40° C to +60° C (-40° F to +140° F) with 95% humidity.

Intelligent Video Analysis (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

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

Technical Specification

Camera

Image Sensor	1/2.8" 2 Megapixel progressive scan STARVIS™ CMOS
Effective Pixels	1920(H)×1080(V)
RAM/ROM	4GB/ 1GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s~1/100000 s
S/N Ratio	> 56 dB
Minimum Illumination	0.0007 lux@F1.5 (Color, 30 IRE) 0.0004 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)
IR Distance	Distance up to 492 ft (150 m)
IR On/Off Control	Auto / Manual
IR LEDs	4

Lens

Lens Type	Motorized vari-focal			
Mount Type	Board-in			
Focal Length	5 mm~60 mm			
Max. Aperture	F1.5			
Angle of View	H: 59°~5°; V: 33°~3°			
Optical Zoom	12X			
Focus Control	Motorized			
Close Focus Distance	3.28 ft (1.0 m)			
DORI Distance	Detect	Observe	Recognize	Identify
	239ft	95ft	47ft	23ft
	1810ft	724ft	361ft	181ft

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.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Streaming Capability	4 Streams
Resolution	1080P (1920 × 1080)/1.3 M (1280 × 960)/ 720P (1280 × 720)/ D1 (704 × 576/704 × 480) /VGA (640 × 480)/ CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 1080P (1~25/30 fps)
	Sub Stream: D1 (1~25/30 fps)
	Third stream: 1080p@(1~25/30 fps) Fourth stream: 720p@(1~25/30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kbps~12032 kbps; H.265: 12 kbps~7424 kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC/HLC/WDR (120 dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual

Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	Supported
Smart IR	Supported
Defog	Supported
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, AAC, G.726, 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
Interoperability	ONVIF (Profile S/Profile G/Profile T)
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 80 M)
Edge Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	IC Now
Smart Phone	IOS, Android

Interface

Audio Interface	Built-In Mic, 1/1 RCA
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	12 VDC/PoE (802.3af)/ePoE
E-PoE	Support
Power Consumption	Basic: 3.4 W (12 VDC); 4.6 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 9.7 W (12 VDC); 12.1 W (PoE)

Environmental

Operating Conditions	-22° F ~ +140° F (-30° C ~ +60° C) / Less than 95% RH
Storage Conditions	-40° F to +140° F (-40° C to +60° C)
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal, plastic
Dimensions	10.76"×3.74"×3.74" (273.2mm×95.0mm×95.0mm)
Net Weight	2.47lb (1.12Kg)
Gross Weight	3.66lb (1.66Kg)

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, Heat Map, Smart Sound Detection

Perimeter Protection

Capabilities	Tripwire; Intrusion; Fast moving (These functions support the classification and detection of vehicle and human objects)
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Intelligent Motion Detect

Capabilities	Secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change
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Smart Object Detection

Capabilities	Smart abandoned object; smart missing object
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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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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

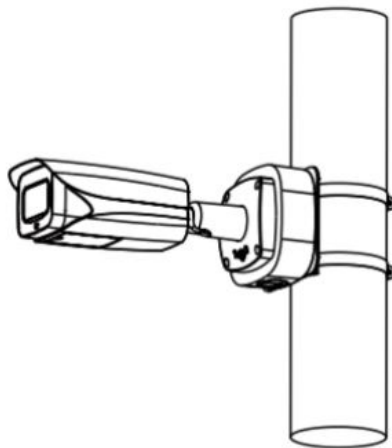
People Counting

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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Accessories

Dimensions (mm/in)

MNT-JUNCTION BOX 4
+ MNT-PCNRIP



MNT-JUNCTION BOX 4

