

# IPEL-B2012X-IRW2

2MP Starlight Bullet Network Camera



- 1/2.8" 2 Megapixel progressive scan STARVIS™ CMOS
- H.264+/H.265 triple-stream encoding
- 25/30fps@1080p(1920×1080)
- WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Perimeter Protection, iMD, Face Detection
- 5.3mm ~ 64mm varifocal lens
- Starlight support, Max IR LEDs Length 492ft
- Micro SD support, IP67, IK10, ePOE support

## System Overview

IC Realtime's IPEL-B2012X-IRW2 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)x1080(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
S/N Ratio	> 56 dB
Minimum Illumination	0.002 Lux@F1.5
IR Distance	Distance up to 150 m (492 ft)
IR On/Off Control	Auto / Manual
IR LEDs	4

### Lens

Lens Type	Motorized vari-focal			
Mount Type	Board-in			
Focal Length	5.3mm~64mm			
Max. Aperture	F1.5			
Angle of View	H: 58°~4°, V: 34°~2°			
Optical Zoom	12X			
Focus Control	Motorized			
Close Focus Distance	1.0 m–1.5 m (3.28 ft–4.92 ft)			
DORI Distance	Detect	Observe	Recognize	Identify
	240ft	95ft	49ft	23ft
	2897ft	1158ft	580ft	289ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°
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### Smart Event

IVS	Object Abandoned/Missing, Heat Map
Perimeter Protection	Tripwire, Intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering
Face Detection Support	Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure Supports 6 kinds of face attributes extraction: Age, Gender, Expression (Happy, Surprised, Normal, Anger, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Mustache & Beard
People Counting Support	Supports Line crossing/Region/Queuing people counting; Supports up to 4 rules.

### Video

Compression	H.265, H.264, H.264B, H.264H, MJPEG (sub stream)
Streaming Capability	3 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 fps–25/30 fps)
	Sub Stream: D1 (1 fps–25/30 fps)
	Third Stream: 1080P (1 fps–6 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps
	H.265: 19 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)	Support
Smart IR	Support
Defog	Support
Flip	0°/90°/180°/270°
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	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP; NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T)
Streaming Method	Unicast / Multicast
Max. User Access	20 Users
Edge Storage	NAS, FTP, SFTP Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Interface

Audio Interface	1/1 channel In/Out
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

### Electrical

Power Supply	DC 12V (±30%), PoE (802.3af)
E-PoE	Support
Power Consumption	<10.3W

### Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +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	273.2mm×95.0mm×95.0mm (10.76"×3.74"×3.74")
Net Weight	1.11Kg (2.44lb)
Gross Weight	1.51Kg (3.33lb)

Accessories

Dimensions (mm/in)

