IPEL-B40V-IRW1-AI
4MP Starlight AI Bullet Network Camera

IC REALTIME

- 1/1.8" 4 Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30fps@4MP (2688×1520)
- IVS, AI Supported Perimeter Protection, Face Detect and People Counting
- WDR(140dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- 2.7~12mm Varifocal Lens
- Starlight support, max IR distance: 164ft
- 256GB Micro SD support, IP67, IK10, ePOE support

System Overview

New in IC Realtime's AI series- the IPEL-B40V-IRW1-AI. Housed in a tough IP67 weatherproof and IK10 rated vandal-proof bullet form factor, this camera is powered by deep-learning Artificial Intelligence algorithms to significantly improve accuracy and help eliminate false positives. This camera works with our AI enhanced NVRs and HDVRs to enable real-time facial recognition and Advanced People counting.

The camera also features enhanced imaging and low light support with advanced 140dB WDR and Starlight support. It is also equipped with Smart IR technology with 164ft max distance at night as well as ePOE support for long distance transmission and 256GB Micro SD support.

Functions

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

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 (0.003 lux).

Advanced Intelligence (People Counting, Heatmap)
In addition to the basic IVS functions, such as Tripwires and Intrusion Zones, this camera also supports more advanced IVS solutions. Heat Maps will overlay different 'thermographic' colors depending on activity levels in a region ranging from blue to red, while People Counting is used to tally human traffic throughout a region of interest. People Counting and Heat Mapping provide essential analytic data for a variety of business applications by keeping track of key census and crowd density statistics.

ePOE Technology
ePOE technology adopts advanced 2D-PAM3 coding modulation from the physical layer and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. It supports PoE and PoC power supply technology, which has greatly simplified construction and wiring. ePoE technology offer a new way to accomplish long distance transmission between IP cameras and network switches. It allows for a more flexible surveillance system design, improves reliability, and saves on construction and wiring costs.

Smart (H.265+ & H.264+)
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

Protection (IP67, IK10, wide voltage)
The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV 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 is the choice for installation in even the most unforgiving environments.

Technical Specification

Camera

Image Sensor	1/1.8" 4 Megapixel progressive scan CMOS
Effective Pixels	2688(H) x1520(V)
RAM/ROM	1 GB/128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
Minimum Illumination	0.003 Lux@F1.8
IR Distance	Distance up to 50m (164ft)
IR On/Off Control	Auto / Manual
IR LEDs	4

Lens

Lens Type	Motorized vari-focal
Mount Type	Board-in
Focal Length	2.7mm~12mm
Max. Aperture	F1.8
Angle of View	H: 114°–47°, V: 62°–26°
Close Focus Distance	1.2 m (3.94 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	190 ft	75 ft	39 ft	20 ft
	T	430 ft	171 ft	85 ft	43 ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Horizontal: 0°–360° Vertical: 0°–90° Rotation: 0°–360°

Smart Event

Perimeter Protection	Tripwire, Intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering
Face Detection Support	Supports 6 kinds of face attributes extraction: Age, Gender,Expression (Happy, Surprised, Normal, Anger, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard
People Counting Support	Supports Line crossing/Region/Queueing people counting; Supports 4 accesses independent detection, 4 areas independent detection
IVS	Object Abandoned/Missing, Heat Map

Video

Compression	H.265,H.264,H.264B,H.264H,MJPEG (sub stream)
Streaming Capability	3 Streams
Resolution	4M(2688×1520)/3M(2304×1296)/ 1080P(1920×1080)/1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps)
	Sub Stream: D1(1~30/60fps) Third Stream: 1080P (1 fps–16 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(140dB)
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)
Smart IR	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

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP ;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;N TP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T), CGI, P2P
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

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

Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC 12V (±30%), PoE (802.3af) (Class 0)
ePOE	Support
Power Consumption	<10.9W

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Storage Conditions	-30° C ~ +60° C (-22° F ~ +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)

273.2 [10.76"]

174.4 [6.87"]

160.0 [6.3"]

95.0 [3.74"]

89.0 [3.5"]

79.4 [3.13"]

95.0 [3.74"]