IPFX-E40V-IRB3
4MP Starlight Varifocal Dome Network Camera

IC REALTIME

- 1/2.9" 4 Megapixel progressive CMOS
- H.265 & H.264 triple-stream encoding
- Outputs max. 4MP (2688 × 1520)@30 fps
- WDR(120dB), Day/Night(ICR), 3DNR, AWB,
- Intelligent Motion Detect 2.0, Perimeter Protection
- 2.7~13.5mm varifocal lens
- Starlight Support, max IR distance: 131ft
- Micro SD up to 256GB, Built-in Mic, IP67, PoE

System Overview

IC Realtime's IPFX-E40V-IRB3 is a 4MP eyeball camera in a sleek, black finish featuring our latest generation of 1/2.9'' CMOS sensors and Starlight support with increased IR illumination up to ~131'. Housed in a weatherproof IP67 rated casing, the camera also includes H.265 encoding for optimized storage and AI functions such as Intelligent Motion Detect 2.0 and Perimeter Protection, which recognizes vehicle and human targets enabling a refined Intelligent search using IC Realtime AI enabled NVRs.

The camera also features a motorized, 2.7mm-13.5mm lens which offers up a 29-104 degree horizontal field of view. The zoom level is fully controllable directly from the camera interface, enabling you to obtain the perfect shot. This makes the camera well suited for exterior applications on commercial as well as residential installations.

Functions

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

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.

Starlight
For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

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 2.0 (Intelligent Motion Detect)
The AI Machine Learning algorithms in our Intelligent Motion Detection (iMD) recorders & cameras means detection gets more accurate over time. Now, iMD 2.0 provides even better recognition, even fewer false alerts, and it encodes detection metadata in every video frame right from installation. This enables our new Object Search system to quickly locate recorded clips matching your search parameters.

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.

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IC REALTIME

Technical Specification

Camera

Image Sensor	1/2.9" CMOS
Effective Pixels	2688(H) x1520(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.005 lux@F1.5 (Color, 30 IRE) 0.0005 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)
IR Distance	Distance up to 131 ft (40 m)
IR On/Off Control	Auto / Manual
IR LEDs	2

Lens

Lens Type	Motorized vari-focal				
Mount Type	φ14				
Focal Length	2.7mm~13.5mm				
Max. Aperture	F1.5				
Iris Type	Fixed				
Angle of View	Horizontal: 104°–29°, Vertical: 54°–16°				
Close Focus Distance	2.6 ft (0.8 m)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	209ft	84 ft	42 ft	21 ft
	T	688ft	275 ft	137 ft	68 ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–360°; Tilt: 0°–78°; Rotation: 0°–360°

Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG
Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Streaming Capability	3 Streams
Resolution	4M (2688 × 1520); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/ 352× 240)
Frame Rate	Main Stream (2688 × 1520@1–25/30 fps)
	Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps)
	Third Stream 1920 × 1080 @ (1–25/30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC, HLC, WDR (120 dB)
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto / Manual
Noise Reduction	3D DNR
Image Stabilization	Electronic Image Stabilization (EIS)
Scene Self-adaptation (SSA)	Yes
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Starlight	Support
Flip	0°/90°/180°/270° (Supported 90°/270° with 2688 × 1520 resolution.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a; G.711Mu; PCM; G.726; G.723

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
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; P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 64 M)
Edge Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	FCC: 47 CFR FCC Part 15, Subpart B

Interface

Video Interface	N/A
Audio Interface	Built-in Mic, 1 (RCA port) each output/ input
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC12V, PoE (802.3af)
Power Consumption	Basic: 4.0 W (12 VDC); 5.2 W (PoE) Max. (WDR + IR intensity + Intelligence): 7.1 W (12 VDC);8.5 W (PoE)

Environmental

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

Construction

Casing	Metal
Dimensions	4.26" × Φ4.8" (108.3 mm × Φ122 mm)
Net Weight	1.58lb (715 g)
Gross Weight	2.02lb (915 g)

AI Functions

IVS

Basic IVS	Tripwire; Intrusion

Perimeter Protection

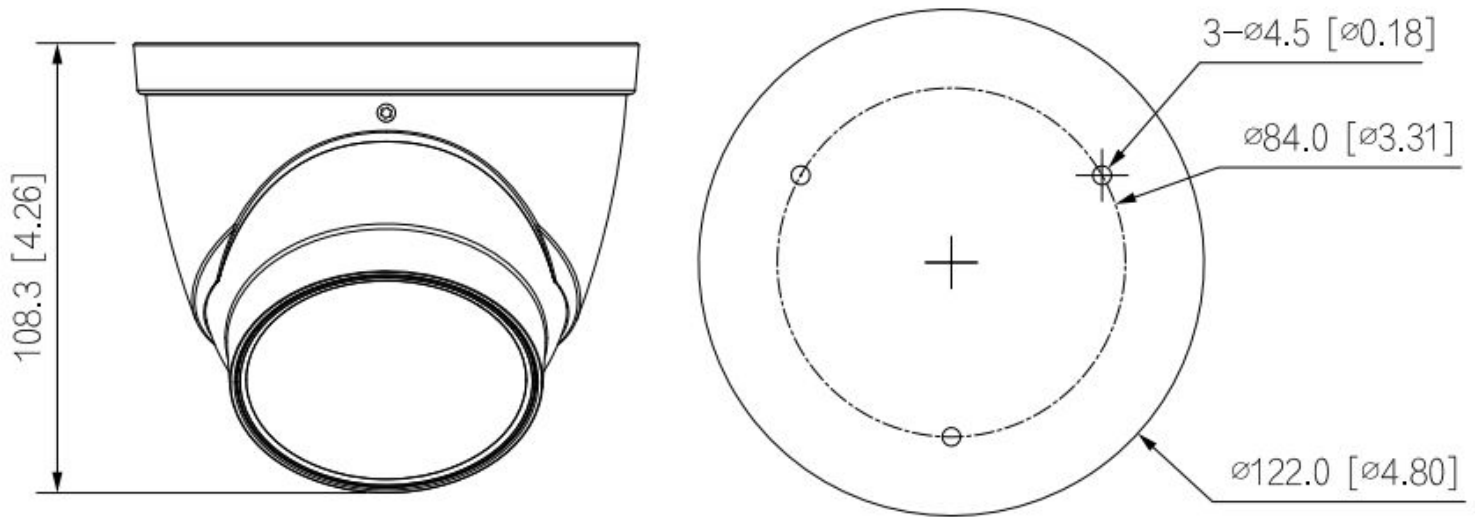| Capabilities	Tripwire; Intrusion (These functions support the classification and detection of vehicle and human objects)

Intelligent Motion Detect 2.0

Capabilities	Advanced secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change. Supports **Object Search** with compatible NVRs.

AI Search

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

Dimensions (mm/in)

108.3 [4.26]

3−⌀4.5 [⌀0.18]

⌀84.0 [⌀3.31]

⌀122.0 [⌀4.80]

Accessories

MNT-JUNCTIONBOX-7B