

# IPEG-D40F-IRW3

4MP Starlight Vandal-Proof Dome Network Camera



- 4-MP 1/2.9" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 dual-stream encoding
- 4 MP (2688 × 1520)@20 fps, and supports 2560 × 1440@25/30 fps.
- 2.8 mm fixed lens, WDR, 3D DNR, HLC, BLC
- Starlight support, Max. IR LEDs Length 98ft
- IP67, IK10, PoE

## System Overview

IC Realtime's IPEG-D40F-IRW3 adds new AI improvements for the Edge series. The camera is capable of 4MP@ 30FPS and comes packed with high end features, including 120dB WDR and Starlight support for a more colorful image in low illumination environments and backed with 98ft of IR distance.

The H.265 encoding technology provides a more efficient video encoding capacity, saves bandwidth and storage space compared to H.264. In addition, it is waterproof, dust-proof and tamper-proof by complying to IP67 and IK10 standards.

## Functions

### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 rating, making it suitable for indoor or outdoor environments.

The camera complies with an IK10 vandal resistance 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).

### 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 98ft (30m).

### 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 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.

### Environmental

With a temperature range of -40°C to +60°C (-40°F to +140°F), the camera is designed for extreme temperature environments. The camera complies to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. 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.

### Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

## Technical Specification

### Camera

Image Sensor	1/2.9" CMOS
Effective Pixels	2688 (H) × 1520 (V)
RAM/ROM	128MB /128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s~1/100000 s
Minimum Illumination	0.006 lux@F1.6 (Color, 30 IRE) 0.0006 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	More than 56dB
IR Distance	Distance up to 98.43 ft (30 m)
IR On/Off Control	Auto / Manual
IR LEDs	3

### Lens

Lens Type	Fixed				
Mount Type	M12				
Focal Length	2.8mm				
Max. Aperture	F1.6				
Angle of View	H: 102°; V: 54°;				
Optical Zoom	N/A				
Focus Control	Fixed				
Close Focus Distance	2.3 ft (1.1m)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	208 ft	83 ft	41 ft	21 ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°~355°Tilt: 0°~65°Rotation: 0°~355°
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### Video

Compression	Smart H.265+; Smart H.264+, H.265; H.264; H.264H; H.264B; MJPEG (sub stream only)
Streaming Capability	2 Streams
Resolution	4M (2688 × 1520); 4M (2560 × 1440); 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@(1~20 fps)/2560 × 1440@(1~25/30 fps) Sub stream: 704 × 576@(1~25 fps)/704 × 480@(1~30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kbps~6144 kbps H.265: 12 kbps~6144 kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR (120dB)
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°/180°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

### Intelligence

Basic IVS	Tripwire; Intrusion
Perimeter Protection	Tripwire; Intrusion(These functions support the classification and detection of vehicle and human objects)
Intelligent Motion Detect	Supported
AI Search	Works together with AI-enabled IC Realtime NVRs to perform refined intelligent search, event extraction and merging to event videos

### Audio

Compression	N/A
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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; NTP; Multicast; ICMP; IGMP; P2P
Cyber Security	Configuration encryption; Trusted execution; Digest; Security logs; HTTPS; Trusted upgrade; WSSE; Trusted boot; Account lockout; Generation and importing of X.509 certification; Video encryption
Interoperability	ONVIF (Profile S/Profile T); CGI; P2P, SDK, API
Streaming Method	Unicast / Multicast
Max. User Access	6 (Total bandwidth: 24 M)
Edge Storage	FTP;SFTP; Micro SD card (support max. 256 GB)
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	IC Now, IC Now Pro
Smart Phone	IOS, Android

### Certifications

Certifications	FCC Part 15, Subpart B
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### Interface

Video Interface	N/A
Audio Interface	Built-in Mic
RS485	N/A
Alarm	N/A

### Electrical

Power Supply	12 VDC/PoE
Power Consumption	Basic: 2.3 W (12 VDC); 2.9 W (PoE) Max. (ICR + H.265 + WDR + max. Illumination + intelligence on); 5 W (12 VDC); 6 W (PoE)

### Environmental

Operating Conditions	-40°F to +140°F (-40°C to +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
Dimensions	3.19" × 4.33" (81 mm × 109.9 mm)
Net Weight	0.75 lb (0.34 kg)
Gross Weight	1.08 lb (0.49 kg)

Accessories

Dimensions (mm/in)

