IPEG-B20F-IRW5
2MP Starlight Bullet Network Camera

IC REALTIME

- 2MP, 1/2.8" CMOS image sensor
- H.265&H.264 dual-stream encoding
- 2.8 mm fixed lens, 2MP (1920 × 1080)@25/30 fps
- Intelligent Motion Detect, Perimeter Protection
- Built-in Mic, Max. IR LEDs Length 98ft
- IP67, PoE,256GB Micro SD support

System Overview

IC Realtime's new IPEG-B20F-IRW5 is a compact bullet style camera in the budget friendly Edge lineup. This newly updated camera is equipped with high end features including H.265 encoding and Starlight support with 120dB WDR for a more colorful image in daylight as well as low illumination environments and Smart IR support with up to 98ft of illumination.

This Edge camera has also been updated with the addition of IVS (Intelligent Video System), Perimeter Protection and Intelligent Motion Detect. This allows the camera to utilize Smart Search and event extraction with other IC Realtime AI NVRs,

Functions

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.

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.

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.

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

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).

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

IC REALTIME

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	128MB /128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.002 lux@F1.6 (Color, 30 IRE) 0.0002 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 LED(s)	1

Lens

Lens Type	Fixed
Mount Type	M12
Focal Length	2,8mm
Max. Aperture	F1.6
Angle of View	Horizontal: 107°; Vertical: 56°
Optical Zoom	N/A
Focus Control	Fixed
Close Focus Distance	2.3 ft (0.7 m)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	144ft	57ft	28ft	14ft

Pan/Tilt/Rotation

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

Video

Compression	H.265; H.264; H.264B; MJPEG (Sub stream only)
Streaming Capability	2 Streams
Smart Codec	Smart H.265+; Smart H.264+
Resolution	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: 1920 × 1080 (1 fps-25/30 fps) Sub stream: 704 × 576@ (1–25 fps)/ 704 × 480@ (1–30fps)
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	Supported
Starlight	Supported
Digital Zoom	16x

Flip	0°/90°/180°/270° (Supports 90°/270° with 1080p resolution and lower)
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

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;WSSE;Account lockout;syslog;Video encryption;802.1x;IP/MAC filtering;HTTPS;Trusted upgrade;Trusted boot; Generation and importing of X.509 certification
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	6 (Total bandwidth: 36 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: 47 CFR FCC Part 15, Subpart B

Interface

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

Electrical

Power Supply	DC12V, PoE (802,3af)
Power Consumption	Basic: 2.1 W (12 VDC); 2.4 W (PoE); Max. (ICR + H.265 + max. resolution + main stream + IR intensity + WDR + IVS): 4.2 W (12 VDC); 5.1 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	N/A

Construction

Casing	Metal + plastic
Dimensions	6.54" × 2.76" × 2.76" (166.2 mm × 70 mm × 70 mm)
Net Weight	1.06 lb (0.48 kg)
Gross Weight	1.3 lb (0.59 kg)

Accessories

Dimensions (mm/in)

166.2 [6.54]

93.7 [3.69]

82.2 [3.24]

⌀70.0 [⌀2.76]

⌀56.0 [⌀2.20]

3-⌀4.5 [⌀0.18]

68.7 [2.70]