

Product Specifications

H.265 1080p Smart IR Dome IP Camera

ICA-4280

Version 1.0

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Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2020/5/12	Marc Liao	Initial Release

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1. PRODUCT DESCRIPTION



Excellent Efficient Surveillance Video

PLANET ICA-4280 PoE IP Camera delivers excellent picture quality in **H.264(+)/H.265** 2 mega-pixel resolutions. Users will benefit from reduced **50%** bandwidth and data storage through more efficient video compression.

Incorporating the **Full HD CMOS Sensor** and **25-meter Smart IR** illuminators, which are specially designed for surveillance applications, the ICA-4280 provides sharp images under all lighting conditions. Being able to operate under the temperature range from **-20 to 60 degrees C**, the ICA-4280, equipped with a tough IP67-rated metal housing and its outdoor and handy features, enables you to easily install the camera in any public areas, such as buildings, gardens, parking areas, markets, railway stations and hospitals. It ensures the highest level of reliability for mission-critical applications in any difficult environment.

High Efficiency Video Compression

The ICA-4280 employs the **H.264(+)/H.265** technology to enable the camera to provide higher and more efficient image compression rates. If the same image quality level of H.264 is compared with that of H.265, the latter is able to save around 50% of bandwidth, meaning **H.264(+)/H.265** offers much higher quality video for less bandwidth. Thus, it can further enhance the overall performance of its IP surveillance system.

Exceptional Image Quality

Together with powerful image processing attributes like Wide Dynamic Range (WDR) and 3-dimensional Noise Reduction (3DNR) technology, the ICA-4280 is able to filter the intense backlight surrounding a subject and remove noises from video signal. The result is that an extremely clear and exquisite picture quality can be produced even under any challenging lighting conditions.

Advanced Media Management

The ICA-4280 supports a number of advanced features to enhance surveillance flexibility and event management capabilities. The advanced features include ROI (region of interest), motion detection, 3 configurable regions of privacy mask to protect personal privacy, and video tampering function. It also comes with defog model and image adjustment

options.

Flexible Installation and Power Functionality

Powered from a PoE power sourcing equipment such as 802.3at/af PoE switch or 802.3at/af PoE injector over a network cable, the ICA-4280, adopting the IEEE 802.3af standard, does not need extra power cables and manpower, thus reducing installation costs while increasing deployment flexibility and scalability. The ICA-4280 is ONVIF compliant and interoperable with other brands in the market, making it an indisputably ideal choice for reliable and high-performance surveillance.

Scheduled Power Rebooting

The ICA-4280 can be scheduled to reboot at a specified time like every minute, every hour, every week or every month to reduce the chance of crash resulting from buffer overflow.

Water-resistant and Dust-proof Protection

The IP67-rated metal housing protects the camera body against rain and dust, and ensures operation under extreme weather conditions, which makes it an ideal solution for outdoor applications, such as buildings, roads, parking areas, garages, railway stations and airports.

2. PRODUCT FEATURES

▶ **Camera**

- 1/2.9" Full HD CMOS Sensor
- 3.6mm fixed with 3MP lens
- 0.01 lux minimum illumination at F1.2
- Built-in smart IR illuminators, effective up to 25 meters
- Removable IR-cut filter for Day & Night function

▶ **Video and Audio**

- Simultaneous H.264(+)/H.265/ MJPEG dual-stream video encoding
- Simultaneous multi-stream support
- H.264/H.265/M-JPEG baseline profile, main profile or high profile options
- Max. resolutions of 2304 x 1296 at 20fps
- WDR (50dB) enhancement function strengthens visibility under extremely bright or dark environments
- 3DNR to improve picture quality at low lux
- One-way audio support
- Image adjustment options
 - Day and night mode
 - Image Adjustment
 - Exposure Settings
 - Backlight Settings
 - Day and night switch
 - White Balance
 - Video Adjustment
 - Image Enhancement
 - Defog Model
- OSD Settings
- Motion detection, video tampering
- 3 configurable regions of privacy mask to protect personal privacy
- ROI (Region of Interest)

▶ **Power over Ethernet**

- Compatible with IEEE 802.3af Power over Ethernet PD for flexible deployment

▶ **Network Configuration and Management**

- IPv4 DHCP Client and IPv4 Static IP Address management
- PLANET DDNS and Easy DDNS, FTP, SMTP, P2P, Cloud, RTSP Encryption and IPEYE available options
- ONVIF compliant for interoperability
- SNTP Network Time Protocol/synchronize with computing time
- Schedule power rebooting
- System log

- User management options for various authorities:
 - Admin
 - Operator
 - Guest
- System maintenance
 - Firmware upload/download via HTTP
 - Configuration upload/download through web interface
 - Hardware-based reset button for resetting to factory default
- Easy configuration and management via Windows-based software or web interface
- PLANET Search Tools utility and Professional Video/Central Management Software

▶ **Case and Installation**

- IP67-rated metal housing for rigorous environment
- Waterproof and dustproof designs
- -20 to 60 degrees C operating temperature
- Plug and Play installation

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

IP Camera SoC	Hi3516EV200
Sensor	F23

3.2 FUNCTION SPECIFICATIONS

Product	ICA-4280		
Camera			
Image Sensor	1/2.9" Full HD CMOS Sensor		
Lens	Focus Length: 3.6mm Focus Control: Fixed Lens Type: Fixed Pixels:3MP Angle of view: Horizontal: 75 degrees Vertical: 58 degrees		
Min. Illumination	0.01 lux (color) @ F1.2 2lux (B/W) @ IR on		
IR Illuminations	Built-in smart IR illuminators, effective up to 25 meters *The IR distance is based on the environment		
Effective Pixels (H x V)	1920 x 1080		
Power over Ethernet			
PoE Standard	IEEE 802.3af PoE PD		
Image			
Video Compression	H.264(+)/H.265/JPEG/MJPEG		
Video Resolution	Item	Main Stream	Sub Stream
	H.264/H.264+	2304 x 1296 1920 x 1280	720 x 480
	H.265	1280 x 720	
	MJPEG	1920 x 1080	
Frame Rate	Up to 15~30 fps for all resolutions		
Bitrate	32~16384kbps		
Shutter Time	Auto: PAL 1/25-1/10000 sec; NTSC 1/25-1/10000 sec		
Image Setting	Day and night mode Image Adjustment Exposure Settings Backlight Settings Day and night switch White Balance Video Adjustment Image Enhancement Defog Model OSD Settings (Text, time and date overlay and overlay image on video) Motion detection 3 configurable regions of privacy mask to protect personal privacy		
Streaming	Streaming over UDP, TCP, HTTP, or HTTPS Controllable frame rate M-JPEG streaming over HTTP (server push) Constant and variable bit rate ROI (Region of Interest)		
Audio			
Audio Streaming	One-way audio		
Audio Compression	G.711A/G.711U		
Audio Input	External microphone input		
Networking & Configuration			
Standards Compliance	IEEE 802.3 10BASE-T		

	IEEE 802.3u 100BASE-TX IEEE 802.3af Power over Ethernet
Protocol	IPv4 DHCP Client and IPv4 Static IP Address management PLANET DDNS and Easy DDNS, FTP, SMTP, P2P, Cloud, RTSP Encryption and IPEYE
Security	User Management options for various authority - Admin - Operator - Guest
Users	On-line monitoring of 16 clients at the same time
Web Brower	IE8~11, Google Chrome, Firefox , Mac Safari
APP	YES (Android, IOS with P2P QR code)
Language	Chinese Simplified, Chinese Traditional, English, Bulgarian, Polish, Arabic, German, Russian, French, Korean, Portuguese, Japanese, Turkish, Spanish, Hebrew, Italian, Nederlands, Czech, Vietnamese
System Integration	
Application Programming Interface	ONVIF compliant
Alarm Triggering	Motion detection
Alarm Events	SMTP, FTP, Cloud(Google, Dropbox)
Hardware Specification	
Power Requirements	12V DC, 0.75A IEEE 802.3af
Power Consumption	8W (IR on)
Dimensions (Φ x L)	93 x 74 mm
Weight	400g
Reset Button	YES
LED	14μ x 18pcs
Connector	10/100Mbps Ethernet, waterproof/dustproof RJ45 connector DC power jack RCA audio in (white)
Enclosure	IP67 metal case
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class B, CE

3.3 PHYSICAL SPECIFICATIONS:

Dimensions (Φ x L):

93 x 74 mm

Weight:


400g

Camera Outlook:



LED Definition:

■ **System**

Item	Function
Lens	Keep the lens clean for excellent video quality.
IR LED	Emits infrared light to provide light source in dark places.
Light Sensor	<p>Detects the illumination level or the place where this IP camera is installed, and switches IR LEDs on when it's required.</p> <div style="border: 1px solid black; padding: 5px;">  <p>Note When IR LEDs are switched on, this IP camera will switch to black and white video mode to enhance video quality. Do not cover light sensor or else this IP camera will work in black and white mode only.</p> </div>

3.4 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: -20°C ~60 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -20°C ~60 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATIONS

Power Requirements: 12V DC, 0.75A Power Adapter

IEEE 802.3af PoE In

Power Consumption:

LOADING	IR (On)
INPUT	
12V	8 watts/27BTU

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class B, CE

3.7 RELIABILITY

MTBF > 50,000Hrs @ 25 degrees C

3.8 BASIC PACKAGING

- The IP Camera x 1
- Quick Installation Guide x 1
- Screw Package x 1
- Waterproof Connector Package x 1
- Drill Template x 1

3.9 PACKING INFORMATION

Box Dimensions (W x D x H)	110 x 110 x 85 mm
Weight (gross weight)	0.36kg
Carton Dimensions (W x D x H)	460 x 390 x 360 mm
Carton Weight (total)	18kg
Quantity	50pcs in one carton