

**Product Specifications**  
**H.265 3 Mega-pixel IR IP Camera**  
**with Remote Focus and Zoom**

**ICA-M4320P**  
Release 1.0

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Change History:

Revision	Date	Author	Change List
Version 1.0	2016/06/24	Keithy	Initial release

Author	Keithy	Editor:	Keithy
Reviewed by:	Jonas	Approved by:	Kent

## 1. PRODUCT DESCRIPTION



### **Suitable for Monitoring All Indoor Areas**

PLANET ICA-M4320P PoE IP Camera delivers excellent picture quality in H.265 3 mega-pixel resolutions at 30 frames per second (fps). Users will benefit from reduced 50% bandwidth and data storage through more efficient video compression.

Incorporating the Sony super low lux CMOS image sensor and 20-meter IR illuminators, which are specially designed for surveillance applications, the ICA-M4320P provides sharp images under all lighting conditions. With the motorized focus/zoom, users can remotely adjust the focus and zoom from the Web interface. Also equipped with a P-Iris, it allows for precise control of exposure, producing images with better clarity and contrast.

Moreover, the built-in PIR motion detection sensor in the ICA-M4320P is helpful to enhance the security level. It is perfect for remote and discreet monitoring of indoor areas such as stores, banks, hotels, office lobbies and warehouses.

### **Clearer Images Delivered but Less Space Taken Up for Compression**

The ICA- M4320P employs the 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.265 offers much higher quality video for less bandwidth. Thus, it can further enhance the overall performance of its IP surveillance system.

### **Passive Infrared (PIR) Sensor**

When people pass by or in an emergency situation, the built-in PIR motion detection sensor in the ICA-M4320P will “detect” and start recording automatically. It is able to detect movement as far as 6 meters away. When a motion is detected in a specified area, the administrator will be alerted via e-mail, and at the same time, the captured images of the situation will be uploaded to a designated storage server via FTP to enable the administrator to instantly view the images.

### **Smart Focus with P-Iris**

The ICA-M4320P comes with the Smart Focus to make installation and adjustment easier by allowing remote focus and zoom adjustment. P-Iris function works by a stepping motor controlled via software to automatically provide the best iris position for the best exposure time in all lighting conditions.

### **Advanced Media Management**

The ICA-M4320P supports a number of advanced features to enhance surveillance flexibility and event management capabilities. The advanced features include 7 configurable regions of privacy mask to protect personal privacy and external ports that allow accessories, such as speakers and microphones, to be added to the camera for two-way audio communication.

### **Flexible Installation and Power Functionality**

Powered from a PoE power sourcing equipment such as PoE switch or PoE injector over a network cable, the ICA-M4320P, 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-M4320P is ONVIF compliant and interoperable with other brands in the market. The ICA-M4320P is indisputably the ideal choice for reliable and high-performance surveillance.

## 2. PRODUCT FEATURES

### ➤ **Camera**

- 1/2.8" Sony Exmor progressive scan CMOS sensor
- 2.8~12 mm vari-focal, P-Iris lens
- Smart Focus for remote and precise focus adjustment
- 0.01 lux minimum illumination at F1.2
- 12 built-in IR illuminators, effective up to 20 meters
- Built-in PIR sensor (covering 6m wide and an obtuse angle of 120 degrees) for thermal and motion detection
- Removable IR-cut filter for Day & Night function

### ➤ **Video and Audio**

- Simultaneous H.265/H.264/M-JPEG video compression
- Simultaneous multi-stream support
- H.264 high profile, main profile and baseline
- Max. resolution of 2048 x 1536 at 30fps
- 3DNR to improve picture quality at low lux
- True WDR enhancement function strengthens visibility under extremely bright or dark environments
- Two-way audio support with enhanced audio quality

### ➤ **Network and Configuration**

- Compliant with IEEE 802.3af PoE interface for flexible deployment
- RTSP, FTP and PLANET DDNS protocols selectable

### ➤ **Easy Installation and Management**

- ONVIF compliant for interoperability
- Intelligent motion, tampering, audio detection alarm
- Digital Input/Output for integration with sensors and alarms
- Easy configuration and management via Windows-based utility or web interface

### 3. PRODUCT SPECIFICATIONS

#### 3.1 Component Specifications

CPU	HS3516D
RAM	256MB
Flash	16MB

#### 3.2 Functional Specifications

<b>Model</b>	ICA-M4320P
<b>Camera</b>	
<b>Image Device</b>	1/2.8" 3 mega-pixel Sony Exmor progressive scan CMOS sensor
<b>Lens</b>	Vari-focal 2.8~12mm, P-Iris <b>Angle of view:</b> Horizontal: 29 ~ 94 degrees Vertical: 23 ~ 72 degrees
<b>Min. Illumination</b>	0.01 lux (color) @ F1.2 0 lux (B/W) @ IR on
<b>IR Illuminations</b>	IR LED x 12, 850nm, Built-in IR illuminators, effective up to 20 meters *The IR distance is based on the environment
<b>PIR Sensor</b>	Covering 6m wide and an obtuse angle of 120 degrees
<b>Effective Pixels</b>	2048 x 1536 pixels
<b>Image</b>	
<b>Video Compression</b>	H.265/H.264/M-JPEG
<b>Video Resolution</b>	2048 x 1536, 1080p, 960p, 720p, 800 x 600, 640 x 480, 640 x 360, 320 x 240, 320 x 180
<b>Frame Rate</b>	Up to 30fps for all resolutions
<b>Bitrate</b>	1024~2000kbps
<b>Shutter Time</b>	1/5~1/10000 sec
<b>Image Setting</b>	AE, AWB 2D noise reduction 3D noise reduction D-WDR/True WDR Brightness, contrast, sharpness, hue, color Anti-False Color Defog Digital Image Stabilization (DIS) BLC Pixel Count Mirror/Flip Privacy mask (7 regions) Text, time and date overlay Overlay image on video
<b>Streaming</b>	Simultaneous multi-profile streaming Streaming over UDP, TCP, HTTP, or HTTPS Controllable frame rate and bandwidth M-JPEG streaming over HTTP (server push)

	Constant and variable bit rate ROI AOI (Higher Quality in AOI area)
<b>Audio</b>	
<b>Audio Streaming</b>	Two-way audio
<b>Audio Compression</b>	RTSP: G.711/G.726
<b>Audio Input</b>	External microphone input
<b>Audio Output</b>	Adjustable audio output gain
<b>Network and Configuration</b>	
<b>Standard</b>	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3af Power over Ethernet
<b>Protocol</b>	IPv4, IPv6, TCP, UDP, HTTP, HTTPS, SMTP, FTP, NTP, DNS, PLANET DDNS, DHCP, Bonjour, UPnP, RTSP, RTP, RTCP, PPPoE, Samba, SNMP, QoS, IEEE 802.1x
<b>Security</b>	Password protection, IP address filtering, HTTPS encrypted data transmission
<b>Users</b>	On-line monitoring of 20 clients at the same time
<b>System Integration</b>	
<b>Application Programming Interface</b>	Open API for software integration ONVIF compliant
<b>Alarm Triggering</b>	PIR, motion detection, tampering, disconnection of network or audio, and external input
<b>Alarm Events</b>	File upload via FTP, Samba or email Notification via email, HTTP, and TCP External output activation Audio alert output ICR On/Off
<b>General</b>	
<b>Power Requirements</b>	12V DC, 1A IEEE 802.3af Class 3
<b>Power Consumption</b>	10W with IR on (12V DC) 10W with IR on (PoE)
<b>Weight</b>	530g
<b>Dimensions (Φ x L)</b>	152 x 109 mm
<b>Emission</b>	CE, FCC
<b>Connectors</b>	10/100Mbps Ethernet, RJ45 1 alarm input and 1 alarm output (terminal block) 12V DC (terminal block) External mic input (terminal block) Audio out (terminal block) Video out (terminal block) Factory default reset button Micro SD slot (max. 32GB, class 10)
<b>Environments</b>	
<b>Cold Boot Temperature</b>	-20 ~ 50 degrees C
<b>Operating Temperature</b>	-30 ~ 50 degrees C
<b>Operating Humidity</b>	20 ~ 80% (non-condensing)

### 3.3 Physical Specifications

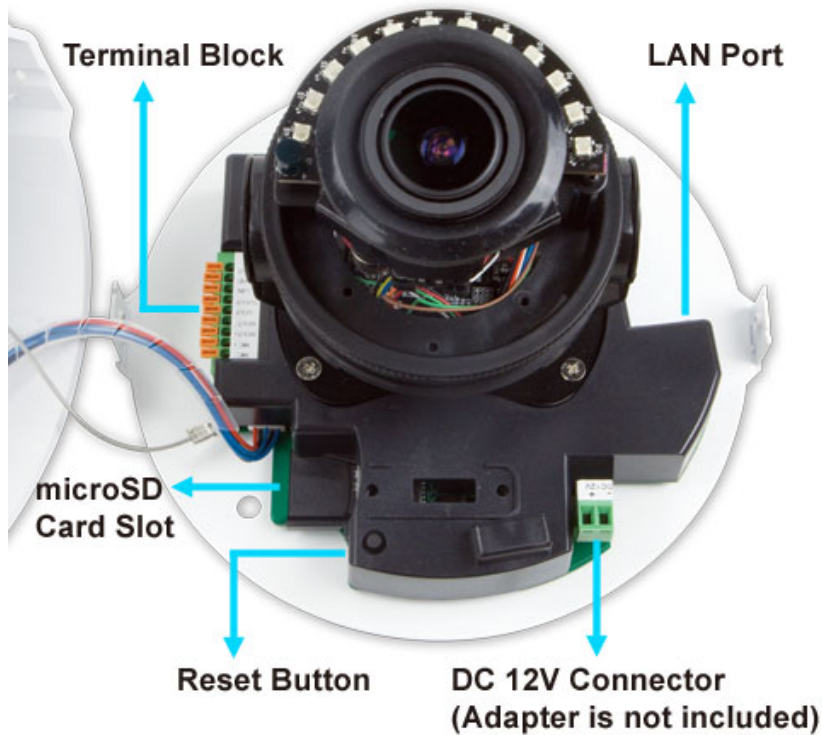
<b>Dimensions (Φ x L)</b>	152 x 109 mm
<b>Weight</b>	530g (gross weight)


➤ **Camera Image**



Item	Description
<b>F2.8~12mm Vari-focal Lens</b>	Keep the lens clean for excellent video quality.
<b>20M IR LED</b>	Emits infrared light to provide light source in dark places
<b>Light Sensor</b>	<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><b>Note</b> 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>
<b>PIR</b>	PIR sensor is used to sense motion or detect whether a human has moved in or out of the sensors range.

➤ **I/O Control Instruction**



Interface	Description
<b>DC 12V Connector</b>	The input power is 12V DC, 1A. The adapter is not included.
<b>LAN Port (RJ-45, PoE)</b>	On board Ethernet port. Connects to a network using a standard Ethernet cable.  <div style="border: 1px solid black; padding: 5px;"> <p> <b>Note</b> ONLY use one power source, either from DC or from 802.3af Power over Ethernet.</p> </div>
<b>MicroSD Card Slot</b>	Insert a memory card (not included) into this slot for local recording purposes.
<b>Reset Button</b>	This button is used to restore all the factory default settings. Restoring the factory default setting will lose the all previous settings included IP address. Restore the device: <ol style="list-style-type: none"> <li>1. Turn off the Camera first.</li> <li>2. Press and hold this button continuously. Power on this camera. Wait until orange LED is turned on, and then release the reset button. It will take about 30 seconds. Once the Camera had been operating again, the device has been restored to default settings.</li> </ol>
<b>Terminal Block</b>	The terminal block includes 1 alarm input port and 1 alarm output port, external mic input, audio out and video out.



### 3.4 Environmental Specifications

#### Temperature

<b>Cold Boot</b>	-20 ~ 50 degrees C
<b>Operating</b>	-30 ~ 50 degrees C

#### Operating Humidity

<b>Operating</b>	20 ~ 80% (non-condensing)
<b>Storage</b>	0 ~ 90% (non-condensing)

### 3.5 Electrical Specification

<b>Device Input Voltage</b>	12V DC, 1A
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### 3.6 Regulatory Compliance

CE, FCC, RoHS, WEEE

### 3.7 Reliability

MTBF > 25,000hrs @ 25 degrees C

### 3.8 Basic Packaging

- 1 x Camera Unit
- 1 x Quick Installation Guide
- 1 x Screw Package

### 3.9 Package Information

<b>Dimensions (W x D x H)</b>	252 x 192 x 140 mm
<b>Weight</b>	870g
<b>Carton Dimensions (W x D x H)</b>	570 x 480 x 340 mm
<b>Carton Weight</b>	7.5kg
<b>Carton Unit</b>	8pcs in one carton

## ***APPENDIX A: Default Setting***

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<b>Default DHCP Client</b>	On
<b>Default IP Address</b>	192.168.0.20 – if no DHCP existed in the network
<b>Default Login User Name</b>	admin
<b>Default Login Password</b>	admin
<b>Search Tools</b>	IP Wizard II