Product Specification

2 Mega-Pixel Wireless Fisheye IP Camera

ICA-HM830W

Version 2.0

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Change History:

Revision	Date	Author	Change List
Version 2.0	2013/03/25	Brandon	Initial release

Author	Brandon	Editor:	Brandon
Reviewed by:	Jonas	Approved by:	Tom

1. PRODUCT DESCRIPTION

Small Wireless Panoramic Camera for Exceptional surveillance

The PLANET ICA-HM830W 2 Mega-Pixel Wireless Fisheye IP Camera supports H.264 and M-JPEG compression formats and delivers excellent picture quality in up to 1600 x 1200 pixels at 15 frames per second (fps). Incorporating the professional 2 MP-resolution sensor, the ICA-HM830W provides high quality images and panorama function with quad view to enable images of monitoring and recording from four different angles to be displayed simultaneously. It offers 180° panoramic view by wall mount installation or 360° surround view in deployment of ceiling / table mount. Therefore, users do not need to install multiple IP cameras and hence save tremendous installation and maintenance cost. Moreover, the unique design makes it the ideal solution to surveillance applications in boutiques, stores or restaurants.

See More of What You Value with 360º Surround View

Furthermore, the ICA-HM830W is a fisheye camera that allows you to monitor all angles of a location using just one camera and thus save lots of traditional mechanical Pan/Tilt maintenance cost. The distorted hemispherical image of the fisheye camera will be converted into the conventional rectilinear projection. Without installing any software, you can watch live view and utilize functions such as motion detection and Camera tampering through the Web interface using an IE browser. Distortion correction fixes the camera video so you can use e-PTZ to zoom in, zoom out, and pan across your camera's video and survey a large area easily

Day & Night functionality

The ICA-HM830W features an automatic, removable infrared-cut filter, which enables the camera to provide color video when there is sufficient light, and black/white video in dark conditions. The camera is able to maintain clear images 24 hours a day.

Advanced event management

The ICA-HM830W provides surveillance functions including DI/DO alarm, Micro SD card support for local storage, and 2-Way audio that enables audio communication between local and remote ICA-HM830W sites by connecting the external microphone and speaker. It can also be applied in video conferencing via its 2-Way audio features.

High Quality Streaming via 11n Wireless Connectivity

The ICA-HM830W adopts IEEE 802.11n wireless technology to communicate at maximum wireless signal rate and ensures secure transmission with WEP and WPA encryptions. It allows you to stream high quality video to remote sites and mobile devices. A Site Survey feature also allows you to view and connect to nearby wireless networks with ease It also includes 64-CH central management software for ease of maintenance and remote monitoring. The ICA-HM830W is indisputably the top choice for reliable and high

performance surveillance.

2. PRODUCT FEATURES

➢ **Camera**

- Fish-Eye Lens to bring 360° /180° panoramic wide angle view
- 1/3” 2Mega-Pixel progressive scan CMOS sensor
- Unique Fish-Eye hardware correction technology
- 3.0 lux Minimum Illumination at F2.0
- 9 different video modes including digital PTZ function
- Maximum resolution 1600 x 1200
- Removable IR-cut Filter for Day & Night Function

➢ **Video / Audio**

- H.264 and M-JPEG video compression simultaneously
- Simultaneous multi-stream support
- Up to 15fps for 1600 x 1200 resolutions
- Two-way audio support with enhanced audio quality

➢ **Network and Configuration**

- IEEE 802.11b/g/n wireless LAN with WEP and WPA encryption
- Auto MDI/MDI-X supported
- UPnP® support for network setup & configuration
- RTSP / UPnP / 3GPP / HTTPS protocols selectable

➢ **Easy Installation & Management**

- Advanced e-PTZ, including preset point
- 10 motion detection areas / E-mail and FTP alert
- Micro SD card local video recording supported
- Digital Input/Outputs for integration with sensors and alarms
- Cam Viewer 3 Central management software supported

3. PRODUCT SPECIFICATION

3. 1 COMPOMENT

CPU	Maxim 3500
RAM	DDR-2 128MB
Flash	2GB
LAN Chipset	Realtek RTL8201
Wireless Chipset	Ralink RT5390U SOC
Audio Chipset	Wolfson WM8750

3. 2 FUNCTIONAL SPECIFICATIONS

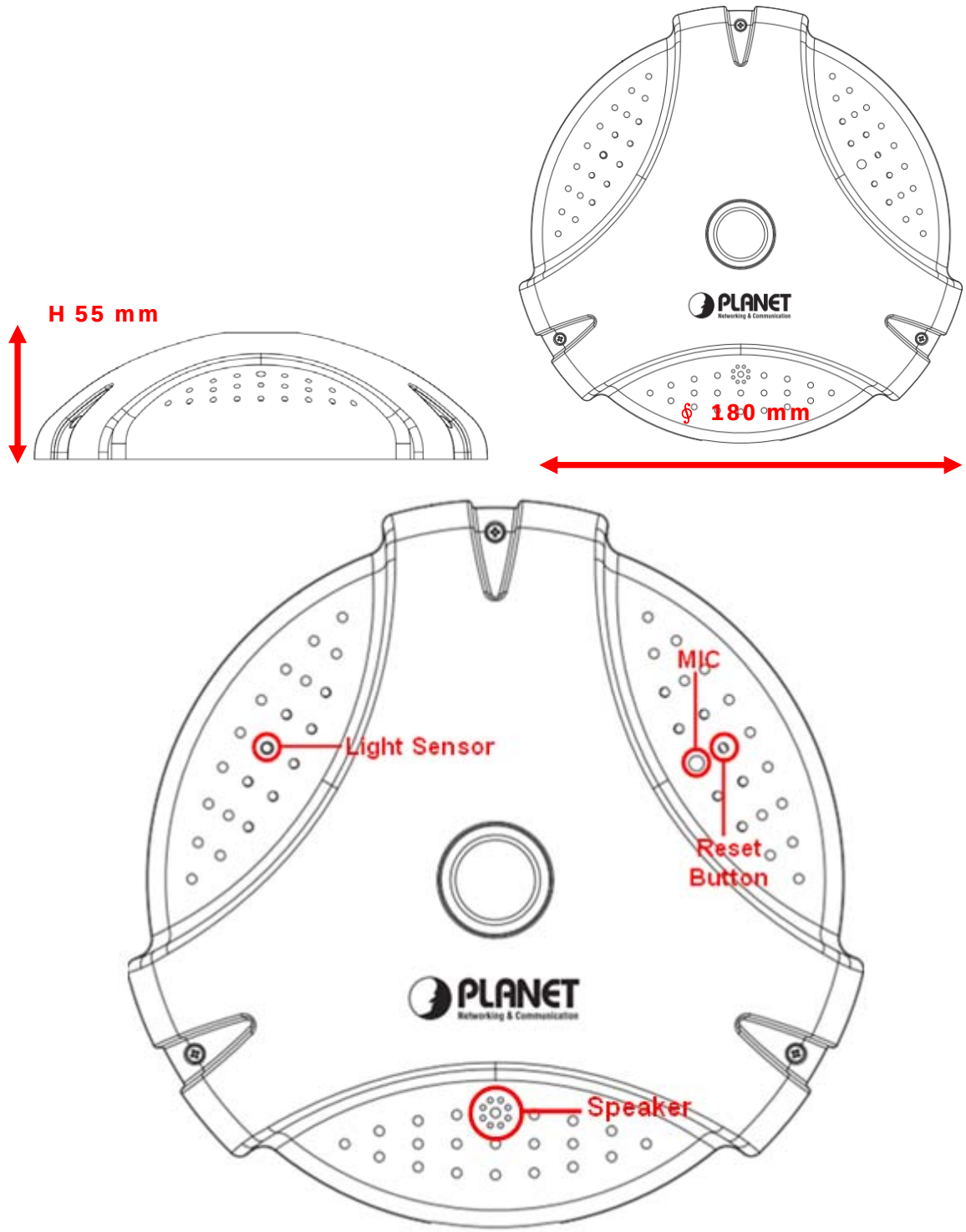
Product	ICA-HM830W 2 Mega-Pixel Wireless Fish-eye IP Camera
Camera	
Image Device	1/3" 2 mega progressive scan CMOS image sensor
Lens	FOV=185°(D/H/V), F=2.0, f=1.25mm Mechanical IR Cut Filter Angle of view : 360 degrees view angle
Min Illumination	3.0 lux @ F2.0
Effective Pixels	1600 x 1200 pixels (4:3)
Video	
Video Encoder	H.264 / M-JPEG
Video Resolution	**UXGA mode** H.264: 1600 x 1200 / 800 x 600 / 640 x 480 M-JPEG: 800 x 600 / 640 x 480 **720P mode** H.264: 1280 x 720 / 800 x 450 / 720 x 405 / 640 x 360 M-JPEG: 1280 x 720 / 800 x 450 / 720 x 405 / 640 x 36
Frame Rate	Up to 15fps for UXGA resolutions
Image Setting	Brightness, Hue, Saturation, Contrast, Sharpness, Exposure, White balance Control, Text, Time and Date Overlay
Streaming	Streaming over UDP, TCP, or HTTP M-JPEG streaming over HTTP (server push) Controllable frame rate and bandwidth Constant and variable bit rate (M-JPEG / H.264)
Rate Control	CBR (Constant Bit Rate) VBR (Variable Bit Rate)
UI Layout	Quad view (4R) 360° source image (1O) 360° table view (1O table) 180° double broad view (2P) 180° double table broad view (2P table) 360° source view with 3 PTZ (1O3R) 360° broad view with 2 PTZ (1O2R) 180° source view with 3 PTZ (1P3R) 180° broad view with 2 PTZ (1P2R)
Audio	
Audio Streaming	2-way Audio
Audio Compression	RTSP: G.711 64kbps
Microphone	Built-in Microphone

Speaker	Built-in speaker
Network and Configuration	
Network Standard	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.11b/g/n
Network Protocol	HTTP, HTTPS, TCP/IP, IPv4, UDP, SMTP, FTP, DHCP, DDNS, NTP, DNS, ARP, RTSP, RTP, Bonjour, UPnP, Samba
Antenna connector	1x2db Dipole Antenna
Frequency	2.4GHz
RF Transmission Power	OFDM: 13 dBm CCK: 17 dBm
Output Power	11n: 12dBm(default) +/- 1dBm 11g: 14dBm(default) +/- 1dBm 11b: 17dBm(default) +/- 1dBm
Data Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: up to 150Mbps
Security	Password Protection , Https encryption , User accesslog
Users	Depending on streaming data rate used
System Integration	
Application Programming Interface	Open API for software integration
Alarm Triggers	Intelligent video motion detection
Alarm Events	File upload via FTP, e-mail or Micro SD card Notification via e-mail
Environment	
Power Requirements	12V DC, 2A
Power Consumption	5W (12VDC)
Operating Temperature	0 ~ 50 degrees C
Operating Humidity	20 ~ 80% (non-condensing)
Weight	365g
Dimensions (Φ x H)	180 x 55 mm
Emission	CE, FCC
Connectors	10/100 Mbps Ethernet, RJ-45 DC power jack Terminal block for 1 alarm input and 1 output Audio in Audio out Micro SD/SDHC card (Max 32GB, Class 6) Factory default reset button

3.3 PHYSICAL SPECIFICATION

Dimension	180 mm x 55 mm (∮ x H)
Weight	365 g (gross weight)

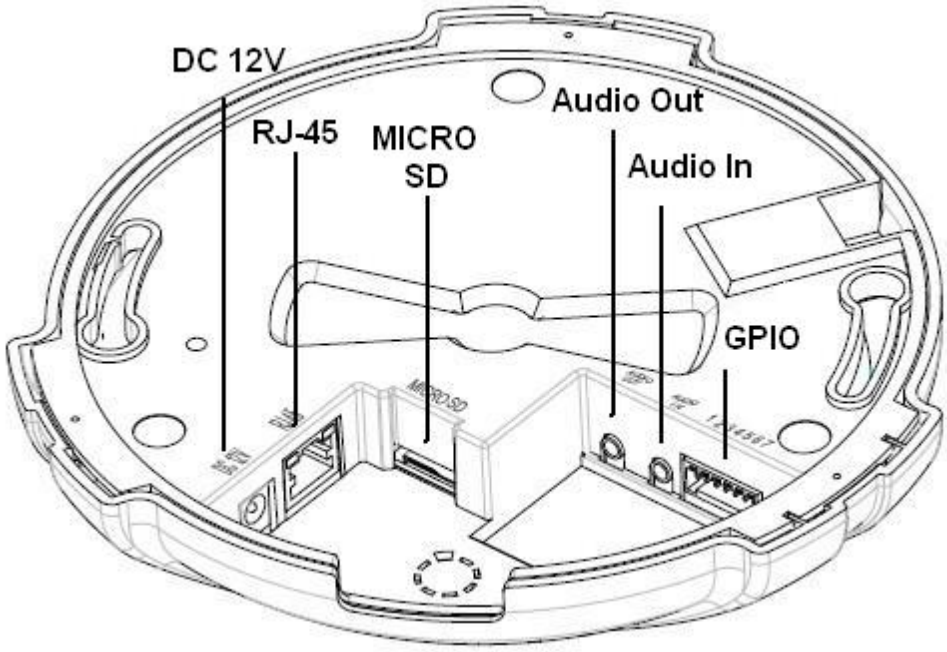
➢ **Front Panel**



Interface	Description
Light Sensor	The Light sensor is for detect IP Camera environment illuminant, and if IP Camera in the dark/night environment that will let IR cut filter off for clearly night view.
MIC	The IP Camera has built-in an internal microphone. This microphone is hidden in the pinhole located on the front panel.
Reset Button	This button is hidden in the pinhole. Please refer to the user's

	manual for more information.
Speaker	The IP Camera has built-in an internal speaker. This speaker is hidden in the pinhole located on the front panel.

➢ **Bottom Panel**



Interface	Description
Power Jack	The input power is DC 12V.
RJ-45 LAN socket	Connect to PC or Hub/Switch. For connect to 10Base-T Ethernet or 100Base-TX Fast Ethernet cabling. This Ethernet port built N-Way protocol can detect or negotiate the transmission speed of the network automatically. Please use CAT-5 cable to connect the Network Camera to a 100Mbps Fast Ethernet network switch or hub.
Micro SD Card Slot	The IP Camera has built-in a Micro SD card slot accepts Micro SD memory card for image / video event recording.
Audio Out	Connect a loud speaker to the IP Camera. This is for voice alerting and two-way audio.
Audio In	Connect a microphone to the IP Camera.
GPIO	The 7 pin terminal block includes 4 input ports and 1 output ports.

➢ **Terminal block for I/O connectors**

Name	Pin	Function
GND	1	Four sets of Digital Input, DI1 until DI4; the internal device is also photo-coupled electrical relay. In practice, the external device can be simply an On/Off switch. Four sets of On/Off switch can be connected as different trigger source.
Digital input 4	2	
Digital input 3	3	
Digital input 2	4	
Digital input 1	5	
DO_NO	6	Digital output implementation; Pin6 to COM (Pin7) is a Photo-coupled relay on Normal Open status. External device can directly connect to the terminals. However the current that will go through the 2 nodes must not exceed 130mA. An external "Relay" can also be connected to the terminals as an implementation. In this case, current (or/and voltage) limitation is specified by the external Relay.
DO_COM	7	

3.4 ENVIRONMENTAL SPECIFICATION

Temperature

Operating	0 ~ 50 degree C
Storage	-10 ~ 70 degree C

Operating Humidity

Operating	20 ~ 80% (non-condensing)
Storage	20 ~ 90% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

Device Input Voltage	12V DC / 2A	
Power Adapter	Power Input	100~240, 50-60Hz, 0.5A Switching Power Supply

3.6 REGULATORY COMPLIANCE

FCC, CE, RoHS, WEEE

3.7 RELIABILITY

MTBF> 50,000hrs @ 25 Degree C

3.8 BASIC PACKAGING

IP Camera unit x 1
Power Adapter x 1
Quick Installation Guide x 1
User's Manual CD x 1
Wall Mount Kit x 1
GPIO Connector x 1

3.9 PACKAGE INFORMATION

Dimension	291 x 207 x 93 mm (W x D x H)

Weight	873g
Carton Dimension	605 x 430 x 307 mm (W x D x H)
Carton Weight	12 kg
Carton Unit	12 pcs in one carton

APPENDIX A: DEFAULT SETTING

Default DHCP Client	On
Default IP Address	192.168.0.20 – if no DHCP existed in the network
Default Login User Name	admin
Default Login Password	admin
Search Tools	IPInstaller