

Product Specification

802.11n Mega-Pixel CMOS PT IP Camera

ICA-M220W

Version 1.0

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Change History:

| Revision | Date | Author | Change List |
|-------------|------------|----------|-----------------|
| Version 1.0 | 2008/10/28 | Kai Chiu | Initial release |

| | | | |
|--------------|-----------|--------------|----------|
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| Reviewed by: | John Sung | Approved by: | Tom Shih |

1. PRODUCT DESCRIPTION

The PLANET ICA-M220W, built-in high performance 1.3Mega-Pixel CMOS sensor delivers MPEG-4 and M-JPEG dual codec video compression with high quality image at maximum 1280x1024 resolutions. And this allows up to 16 users to access simultaneously.

The ICA-M220W, Pan/Tilt internet camera, offers pan range of 350-degrees and tilt range of 120-degrees to control over TCP/IP networks. The ICA-M220W can send video and audio via the internet to a web browser anywhere in the world.

The ICA-M220W is compliant with the latest wireless interface IEEE 802.11n and also backward compatible with IEEE802.11b/g. It provides data encryption (WEP / WPA / WPA2) to bring ultimate data security level and is WPS function supported to help users to connect their AP which supports WPS function. No any settings required, user just pushes the WPS button on both devices, and the wireless connection will be created automatically.

The ICA-M220W takes surveillance to use 2-way audio. It can remotely talk to anyone at ICA-M220W site when adding a speaker on ICA-M220W.

2. PRODUCT FEATURES

- 1.3Mega-Pixel CMOS sensor built-in
- Offers pan range of 350-degrees and tilt range of 120-degrees to control over network
- 2-Way audio with built-in microphone and additional external speaker
- Plug-N-Watch is able to simplify system integration in existing network environment
- Easy configuration: Network administrators can configure and manage via Windows-based utility or web interface
- DDNS, PPPoE and FTP uploading supports more alternatives in surveillance network
- Motion Detection: the motion detection feature can monitor any suspicious movement in specific area
- Supports 3 video resolutions: MPEG-4: XGA (1024 x 768), VGA (640 x 480), and QVGA (320 x 240)
M-JPEG: SXGA (1280 x 1024), VGA (640 x 480),and QVGA (320 x 240)
- Anti-flicker function, eliminates flash caused by fluorescent lights, 50 / 60Hz selectable
- Supports UPnP, Windows XP (and above), automatically detects the IP camera in network neighborhood
- Sends captured picture and video by Email or FTP when motion is detected
- Built-in real-time clock, date and time information will be recorded with every captured picture / video clip
- Supports up to 16 users with different passwords for each user
- WEP / WPA / WPA2 Wireless data encryption (wireless model)
- Supports WPS function (wireless model)
- Supports SD card to save local recording video and image
- Cam Viewer - Central management software supported

3. PRODUCT SPECIFICATION

3. 1 COMPONENT

CPU: Prolific PL-1029

RAM: HIRA P2V28S40CTP (128Mb) x 2

Flash: MX 29LV320CBTC (32Mb)

LAN: Realtek RTL8139DL

WLAN : Ralink RT2860/RT2820

Sound Chipset: Realtek ALC202A

4. 2 FUNCTIONAL SPECIFICATIONS

| Video Specification | |
|--|--|
| Image Sensor | 1/4" Color CMOS image sensor |
| Lens | 4.8 mm, F1.8 |
| Scan Method | Progressive |
| Sensibility | 1 Lux |
| Signal to Noise | More than 50 dB |
| Video Encoder | MPEG-4 and M-JPEG dual code |
| Rate Control | CBR(Constant Bit Rate) / VBR(Variable Bit Rate) |
| Video Resolution | 30fps @ 640 x 480, 320 x 240, 160 x 120 15fps @ 1024 x 768 (MPEG-4) 15fps @ 1280 x 1024 (M-JPEG) |
| Image Control | AGC, AWB, AES |
| Color | Digital 24bit |
| View Angle | Horizontal: 36 Degree / Vertical: 28 Degree |
| P/T Range | Pan: 350 degree Tilt: 120 degree |
| P/T Speed | 5 levels speed adjustable Fastest (1) = 36.393 Degree/sec Slowest (2) = 0.212 Degree/sec |
| Motion Detection | 3 area definable |
| Audio Specification | |
| Audio Codec | G.726 |
| Audio I/O | Audio in: Internal microphone / Audio out: External Speaker |
| Wired Network and Configuration | |
| Network Interface | 1 x RJ-45 |
| Network Standard | IEEE 802.3/IEEE 802.3u |
| Browser / Software | Microsoft © Internet Explorer 6.0 or later, Cam Viewer Lite/Pro |
| Network Protocol | TCP/IP, HTTP, SMTP, FTP, NTP, DNS, DDNS, DHCP, UPnP, PPPoE |

| Wireless Network | |
|-----------------------------------|--|
| Wireless Standard | IEEE 802.11b / 802.11g / 802.11n (draft 2.0) |
| Wireless Data Rate | 11b: 1/2/5.5/11Mbps 11g: 6/9/12/24/36/48/54Mbps 11n (20MHz): MCS0-15, 32 with Half Guard Interval Support (up to 144Mbps) 11n (40MHz): MCS0-15, 32 with Half Guard Interval Support (up to 300Mbps) |
| Frequency | 2.4GHz - 2.484GHz |
| RF Chain | 2T3R mode |
| RF Modulation | 11n: OFDM with BPSK, QPSK, 16-QAM, 64QAM 11g: OFDM with BPSK, QPSK, 16-QAM, 64QAM 11b: BPSK, QPSK, CCK |
| Wireless Encryption | WEP 64/128-bit, WPA-PSK, WPA2-PSK, Cisco CCX Support |
| Operating Mode | Infrastructure, Ad-Hoc Mode |
| Antenna Type | 2 x 3 dBi (Max) Dual detachable diversity antenna |
| Antenna Connector | Reversed Polarity SMA Male |
| Output Power | 802.11b mode: 17.5+/-2dBm 802.11g mode: 14+2/-1dBm 802.11n mode: 14+2/-1dBm |
| Receiver Sensitivity | 11M : -90dBm 54M : -79dBm 300M : -68dBm |
| Wireless Operating Range | Open Space : 100 ~ 300m Inndoors : 35 ~ 100m |
| Wireless Power Impedance | 802.11b -- Peak Output Power: 18dBm @ Nominal Temp Range 802.11g -- Peak Output Power: 15.5dBm @ Nominal Temp Range 802.11n -- Peak Output Power: 15.7dBm @ Nominal Temp Range |
| Environment Specifications | |
| Power Requirement | 12V DC, 1A |

3.3 PHYSICAL SPECIFICATION

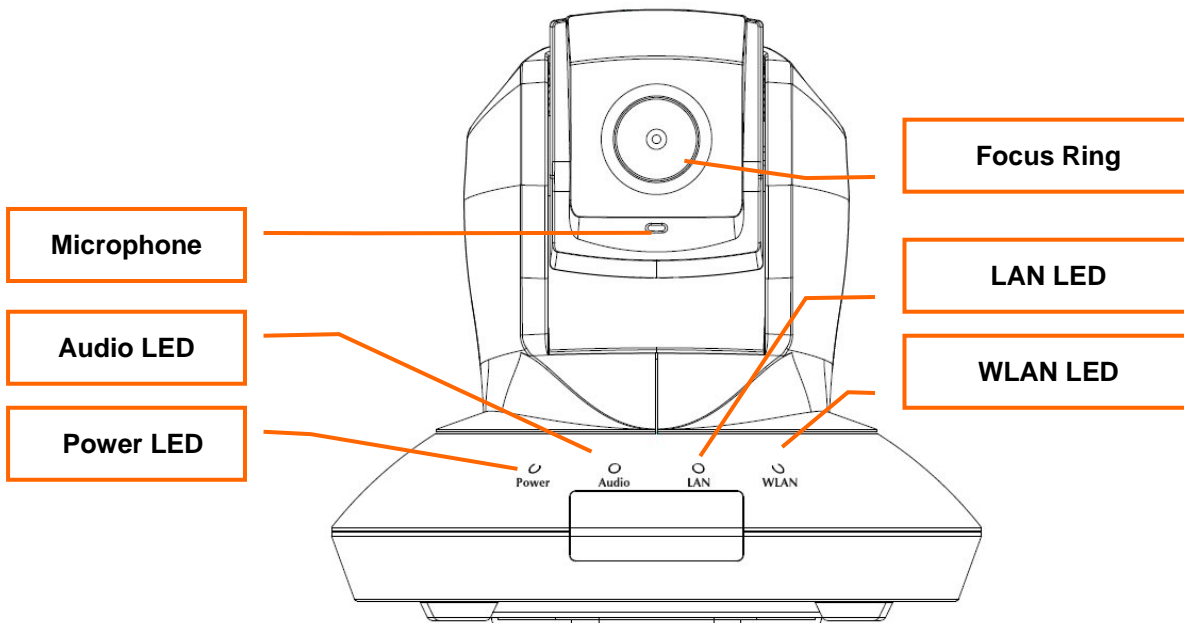
Dimension (mm)

108 x 112 x 108 mm (W x D x H)

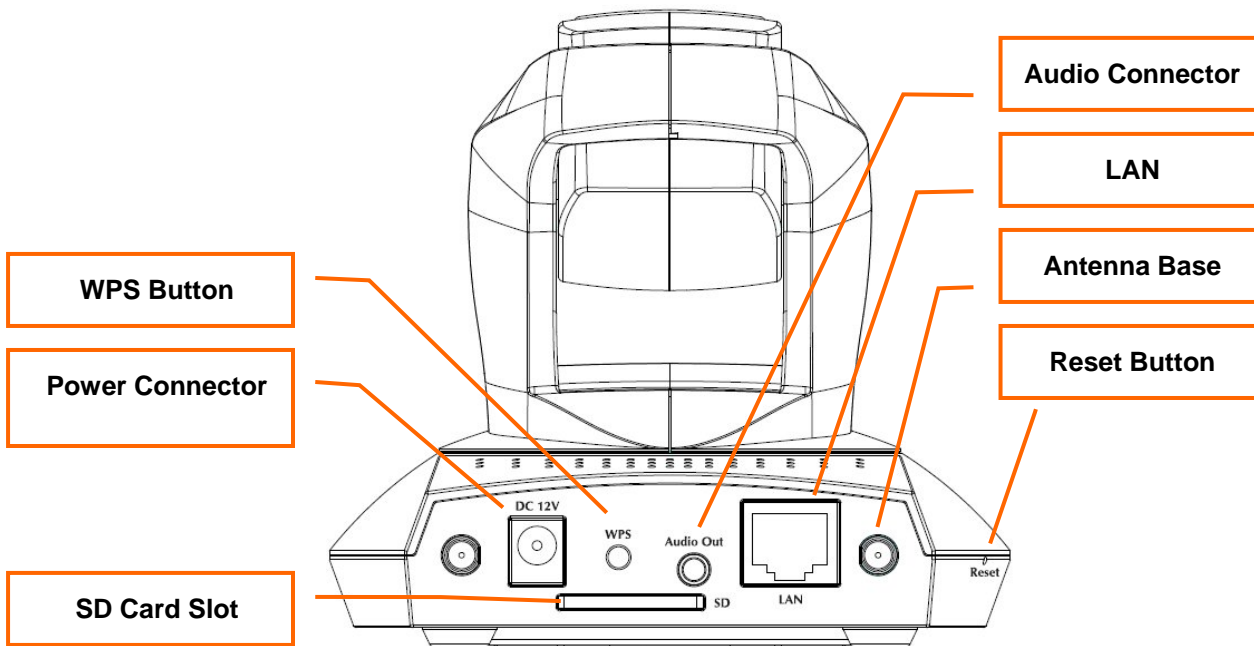
Weight

350 g (gross weight)

Front Panel



Rear Panel



Button Description

| Button | Function |
|--------|--|
| WPS | Press the WPS button, machine will start WPS function to build connection between wireless network clients and this wireless router. |
| Reset | Press the button with pen nib and hold for 8 seconds to reset the camera settings to factory default value |

Physical Interfaces

| Connector | Function |
|--------------|--|
| LAN | This is a RJ-45 connector for connections to 10/100 Base-TX Ethernet cabling and built N-Way protocol can detect or negotiate the transmission speed of the network automatically. |
| Audio Out | Audio-Out allows device to output audio or alerting sound. |
| SD Card Slot | Accepts SD / SD-HC memory card for image / video storage supports maximum up to 8GB SD-HC class 2 |
| Antenna Base | Allows device connects to the supplied antenna. |
| Power | The input power is 12VDC, 1A. |
| Microphone | The Camera has built-in an internal microphone. This microphone is hidden in the pinhole located on the front panel. |

LED Indicators

| LED | Color | STATE | MEANING |
|-----------|-------|----------|--|
| PWR | Green | On | Device power on |
| | | Off | Device power off |
| LAN / ACT | Green | Blinking | Packets are transmitting or receiving |
| | | On | Link is established |
| | | Off | LAN is disconnected |
| WLAN | Green | Blinking | WPS be searching or data transmission through the Wireless interface |
| | | Off | Wireless interface is no function |
| Audio | Green | Blinking | Audio-Out is working |
| | | On | Audio-In is enable |
| | | Off | Audio-In is disable |

3.4 ENVIRONMENTAL SPECIFICATION

Operating Temperature

0 ~ 50 degree C

Operating Humidity

10 ~ 80% (non-condensing)

3.5 REGULATORY COMPLIANCE

FCC, CE, PCT

3.6 BASIC PACKAGING

Camera unit x 1

Power Adapter x 1

Accessories Package x 1

CD Disk x 1

Quick Installation Guide x 1

3.7 PACKAGE INFORMATION

Dimension

300 x 173 x 132 mm (W x D x H)

Weight

1020 g