Interactive Services - Outdoor Camera

IS-OC-1000

User Guide

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Chapter 1

Introduction

This Chapter provides an overview of the Outdoor Network Camera's features and capabilities.

Congratulations on the purchase of your new Outdoor Network Camera. The Outdoor Network Camera is a **Water/Dust Proof** device, which is used for home monitoring and security.

Package Contents

The following items should be included:

- The Outdoor Network Camera Unit
- Antenna
- Power Adapter
- A Stand
- Default kit

If any of the above items are damaged or missing, please contact your dealer immediately.

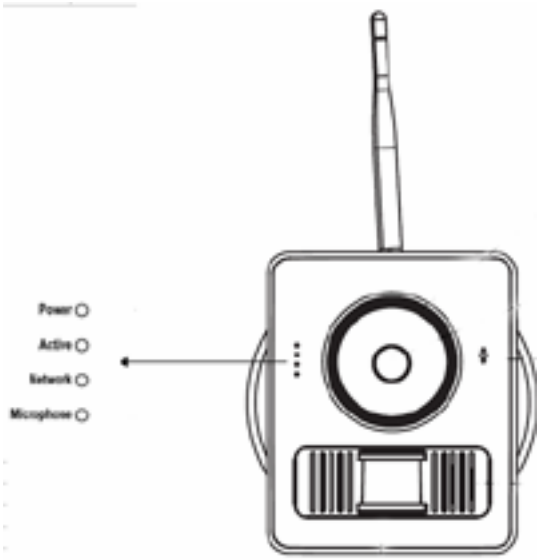
Features

- Support Dust Proof and Water Proof IP65
- Provide MPEG4 Simple Profile (up to 30fps) and Motion-JPEG video streams simultaneously (up to 30fps)
- Streaming resolution at VGA (640x480), QVGA (320x240) and QQVGA (160x120).
- Support Day /Night mode by auto IR switcher as well as 8 IR LED
  Low Light Sensitivity is 0.5 Lux without IR LED
  Low Light Sensitivity is 0.1 Lux with IR LED
- Support H/W Motion Detection by PIR Sensor.
- Support full duplex bi-directions audio with Echo Cancellation function
- Support IEEE 802.11b/g.
- Support Motion Detection by analyzing the video stream.
- Support user-defined HTTP CGI for the HTTP notification action.
- Image controls：AWB (Auto-White-Balance), AGC (Auto-Gain-Control), Contrast, Sharpness, Brightness, Image Quality, Time Stamp and Text Overlay, image flip and mirror control.
- Alarm Event includes File upload via FTP, HTTP, email notification and FTP event recording.

LEDs

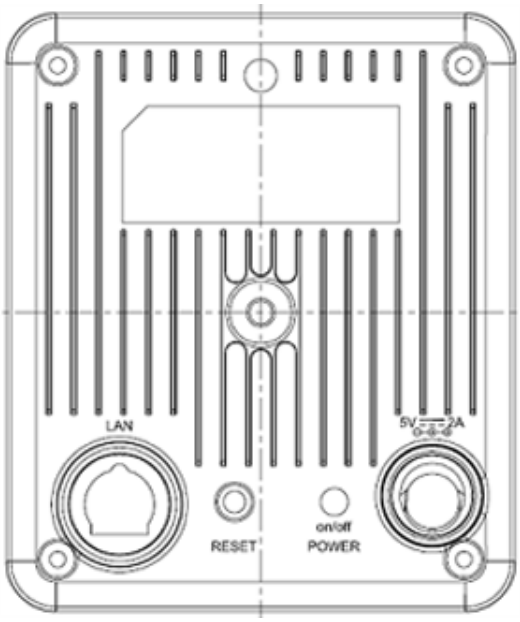
Front-mounted LEDs

The Outdoor Network Camera has 4 LEDs.



Power	• **On** (Green)- Power On • **Off** - Power Off • **Flashing** - The device is rebooting.
Active	• **Off** - No user is viewing the camera. • **Blinking** - User(s) is viewing the camera.
Network / WPS	• **On** (Green)- LAN connection established. • **Off** - Wireless or LAN is not connected. • **Flashing** (Green) - Data is being transmitted or received via the corresponding LAN (hub) port. • **On** (Amber)- If the LED is on, the WPS is not processing successfully. • **Flashing** (Amber) - WPS function is being processed.
Microphone	• **On** - Microphone function is enabled. • **Off** - Microphone function is disabled.

Rear Panel



LAN Port	Use standard LAN cables (RJ45 connectors) to connect your PCs to these ports.
RESET	Click this button to setup WPS Auto mode and pin mode, or reset all setting to factory default. After Reset switch is pressed, system will take following actions: • Press once (less than 3 seconds) under Wireless connection, system will be in WPS PBC model (Auto mode). • Press and hold over 3 seconds (less than 10 seconds) under Wireless connection, system will be in WPS PIN code mode (8 digital, generated from last 3 byte of MAC address) • Press and hold over 10 seconds, reset to manufacturer default value and reboot.
POWER Switch	Push the button down to power on the device
Power Port	Connect the supplied power adapter here.

Chapter 2

Initial Installation

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This Chapter covers the software installation of the Outdoor Network Camera.

Requirements

- Network cables. Use standard 10/100BaseT network (UTP) cables with RJ45 connectors.

Procedure

1. Choose an Installation Site

Select a suitable place to install the Outdoor Network Camera.

2. Connect LAN Cables

Use standard LAN cables to connect devices to the LAN port on the Outdoor Network Camera.

4. Power Up

Connect the supplied power adapter to the Outdoor Network Camera. Use only the power adapter provided. Using a different one may cause hardware damage.
Push the *Power* switch down to turn on the device.

5. Check the LEDs

- The *Power* LED should be ON.

- The *Network* LED should be ON (provided the PC is also ON.)

Chapter 3

Specifications

This Chapter provides specifications for the Outdoor Network Camera.

Hardware features

Feature	Description	
CPU	SC1100, ARM9 based, 32bit-192Mhz base clock Hardware MPEG-4 SP/MJPEG Encoders	
Flash ROM	4 Mbytes	
SDRAM	32 Mbytes SDRAM	
LAN	DM9102H, Ethernet 10/100BaseT, Auto-MDIX,	
WiFi	IEEE 802.11b/g standard	
	Max 50m line of sight, with no interference	
	External Antenna with 4.2dBi, water proof	
Indicators	Power	Green
	Active	Green
	Network	Green/ Amber
	Microphone	Green
Connectors	Ethernet, RJ45 connector	
	Reset Button, Tack switch	
	Power on/off button	
	DC Power,	
External Power Adapter	5V/2A, 10W, 100~240 VAC, Switching 2.5mm Phone Jack, 180 Degree	
Power Consumption	Estimated 5W	
Audio		
Microphone/Speaker	Bi-directional, built in mic and speaker	
Codec	G.726 (ADPCM)/G7.11 (PCM)	
Audio option	Software controlled on/off via web interface and firmware	
	Audio recoding/playback	
Built-in Speaker	8 ohm, 1.5W	

Built-in Microphone	6mm, – 40 dB + 3db, >55dB
Image Sensor	
Image Sensor	Omni Vision **OV7740** 1/5" CMOS Sensor, Effective Pixels 640x480 (6µm x6µm pixels)
Lens	F2.0 @ f1.8 Fixed Focus lens (board lens, 3P), 50cm infinity, 60 view angle
Viewing Angle	60^0 Viewing Angle

Software features

Operating System	
OS	Linux Operating System
Management interface	Web based user interface
DHCP	Client
Protocol Support	TCP/IP, HTTP, HTTPS, IPv4, RTSP/RTP, RTCP, QoS, DHCP, NTP, FTP, SMTP, DNS, DDNS, UPnP, IGMP, ICMP, iControl API protocol compatible
Video	
Video Compression	• MPEG4 • MJPEG
Resolution	• 640x480 (VGA) • 320x240 (QVGA, system default) • 160x120 (QQVGA)
Frame Rate	• MPEG4 max. 30fps • MJPEG max. 30fps
3GPP	• 160x120@15fps, M-PEG4 for mobile phone viewing
Digital Zoom	• 4x
Security	• Password Protection, HTTPS encryption, IP address filtering, user access log
Video verification	• Time Stamp • Text Overlay, 20 characters

Browser Support	Internet Explorer 6 and above
ActiveX Support	ActiveX 8.0 and above
Audio	
Audio Compression	G.726 (16/32 Kbps), G.711 (64 Kbps)
Sampling Rate	8 KHz
Events	
Internal Motion Detection	On board video pixel motion detection
Trigger	PIR trigger HTTP trigger Motion Detection
Triggered Action	File upload via FTP, HTTP and email notification, FTP event recording support, PIR trigger,
Pre/Post Alarm	Yes, configurable
E-Mail	Client, For event trigger alert notification

Regulatory

Regulatory	
Water-Proof	IP65
EMI / EMC	FCC, CA, RoHS, WEEE
Safety	UL2044

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with
instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your
authority to operate the equipment.

FCC RF Radiation Exposure Statement:
1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment
should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

IEEE 802.11b or 802.11g operation of this product in the Canada is firmware-limited to channels 1 through 11.

RSS-GEN 7.1.4:
User Manual for Transmitters with Detachable Antennas The user manual of transmitter devices equipped with detachable antennas shall contain the following information in a conspicuous location:

This device has been designed to operate with the antennas listed below, and having a maximum gain of [4.2] dB. Antennas not included in this list or having a gain greater than [4.2] dB are strictly prohibited for use with this device. The required antenna impedance is [50] ohms.

Industry Canada - Class B

This digital apparatus does not exceed the Class B limits for radio noise emissions

from digital apparatus as set out in the interference-causing equipment standard

entitled “Digital Apparatus,” ICES-003 of Industry Canada.