

MegaPixel IP Outdoor Rugged Dome

(with DC 12V / PoE)

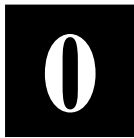
ACM-7411 series

Ver. 081016

Hardware User's Manual



www.acti.com



PRECAUTIONS

1. Read these instructions

All the safety and operating instructions should be read before the product is operated.

2. Heed all warnings

All warnings on the product and in the instruction manual should be adhered to.



The symbol indicates the following items, please carefully read the description next to each symbol.

- a. Failure to follow the safety instruction given may directly endanger people, cause damage to the system or to other equipment.
- b. The requirements to make this device work, including hardware, computer settings, network settings, and operation procedures.
- c. The tips to make using this device easier, more convenient and more efficient.

3. Servicing

Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Trademarks

All names used in this manual for hardware and software are probably registered trademarks of respective companies.

Liability

Every care has been taken during writing this manual. Please inform your local office if you find any inaccuracies or omissions. We cannot be held responsible for any typographical or technical errors and reserve the right to make changes to the product and manuals without prior notice.

FCC/CE Regulation

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses,

and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Table of Contents

0	<i>PRECAUTIONS</i>	<i>0-1</i>
	Trademarks	0-1
	Liability	0-1
	FCC/CE Regulation	0-1
1	<i>INTRODUCTION</i>	<i>1-1</i>
1.1	Package Contents	1-1
1.2	Features and Benefits	1-2
1.3	Safety Instructions	1-4
1.4	Physical Description	1-6
2	<i>Installation Procedure</i>	<i>2-9</i>
2.1	Connect the IP Outdoor Rugged Dome	2-9
2.1.1	Remove the cover	2-9
2.1.2	Insert the cable	2-10
2.1.3	Connect cables to connectors	2-10
2.1.4	LED Description	2-11
2.2	Mount the IP Outdoor Fixed Dome (Surface)	2-12
2.3	Mount the IP Outdoor Fixed Dome (Flush)	2-13
2.4	Mount the IP Indoor Fixed Dome (Wall)	2-14
3	<i>Adjust the camera</i>	<i>3-15</i>
3.1	Adjust zoom and focus	3-15
3.2	Adjust camera functions	3-15
4	<i>Product Specification</i>	<i>4-16</i>

1

INTRODUCTION

1.1 Package Contents

CAM-7411 series
(DC12V / PoE)



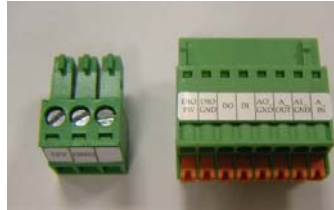
Power Adaptor (Option)



Product CD



Terminal Blocks for Power, DI/O & Audio



Warranty Card



Accessory



1.2 Features and Benefits

This IP device is a cutting-edge digital video transmission device. It can compress and transmit real time images with outstanding images quality (SXGA, 1280x1024) at reasonable bandwidth through a standard TCP/IP network. That is because it is Ethernet ready and has the powerful ARM9 SoC with excellent system performance to offer dual streams of MPEG4/MJPEG, and both formats offer megapixel resolution. In addition, with these powerful hardware platform, excellent SDK support and powerful respective apparatuses (e.g. the transcoder), this IP device is your best choice building up either conventional IP surveillance system or intelligent IP surveillance system.

- **MPEG-4/MJPEG Dual Streaming**

With excellent system performance, MPEG-4/MJPEG are supported. It brings superior image quality not only 30 frame per second in full D1 resolution, but also offers up to 7 frames per second in SXGA (1280x1024).

- **Automatic Frame Rate Control**

This IP device supports automatic/manual streaming frame rate control, especially for multiple clients' concurrent access the same video stream in different network bandwidth.

- **Digital Time Code Embedded**

The "Digital Time Code Embedded" function is to embed the recording time in the MPEG bit stream. Therefore, each image frame has its respective time when it was recorded. It is very useful when users want to find the video at an exact time or between a certain time intervals.

- **DDNS Supported**

This IP device supports DDNS (Dynamic Domain Name Server), users can set this IP device at a virtual domain name (such as cam1.Taipei.xxx) at dynamic IP. Everyone can use the virtual domain name to view the video anywhere that has the access to the internet.

- **Build-in Hardware Motion Detection**

No more external motion sensors are required. Each IP device can be set up to 3 detection areas. By tuning the object size and sensitivity, it is very reliable to fit into your environment. Besides, hardware motion detection

delivers better sensitivity and responds faster than software motion detection.

- **Bundle Powerful Surveillance Software**

To extend the capabilities of this IP device, a powerful surveillance program is included in the package and is very free to use. Users can easily utilize the existing PC to be a digital video recorder. Schedule recording and manual recording keep every important image recorded in the local hard disk. Reliable and accurate motion detection with instant warning makes you responsive in every condition. Quick and simple search and playback function lets you easily find the images you want.

- **Software Development Kit Support**

This IP device can be integrated or controlled by user's application program through the Streaming Library or ActiveX control. With its high level programming interface, software developer's time and efforts to is highly reduced.

1.3 Safety Instructions

- **Don't use the power supply with other voltages**

This device is likely to be damaged or damage other equipments / personnel, if you use a power supply with different voltage than the one included with this device. All warranty of this product will be voided in the situations above.

- **Don't open the housing of the product**

- **Cleaning**

Disconnect this video product from the power supply before cleaning.

- **Attachments**

Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

- **Don't use accessories not recommended by the manufacturer**

- **protected from weather**
- **Servicing**

Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

- **Damage Requiring service**

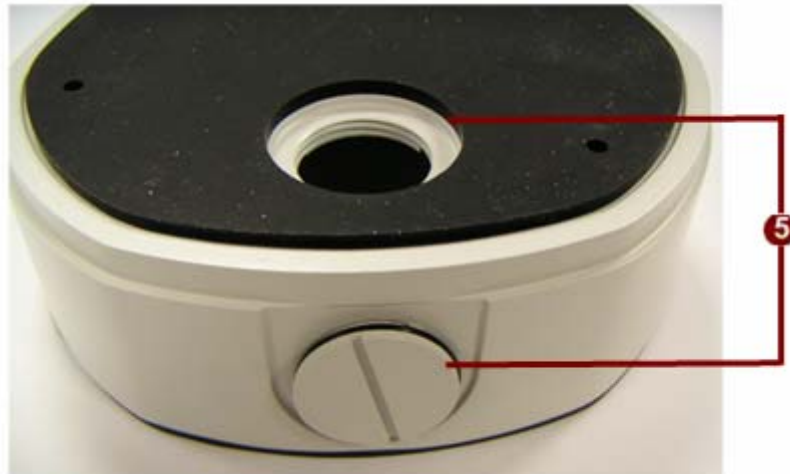
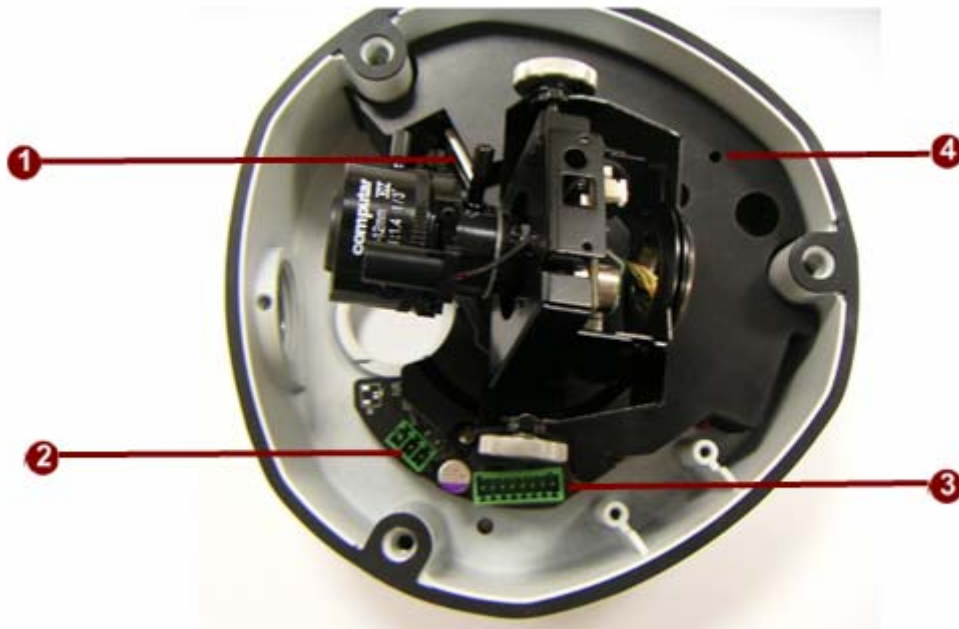
Disconnect this video product from the power supply immediately and refer servicing to qualified service personnel under the following conditions.

1. When the power-supply cord or plug is damaged.
2. If liquid has been spilled, or objects have fallen into the video product.
3. If the video product has been exposed to rain or water directly.
4. If the video product does not operate normally by following the operating Instructions in this manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment . Other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.

- **Safety Check**

Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

1.4 Physical Description



1. Ethernet Port

The IP device connects to the Ethernet via a standard RJ45 connector. Supporting NWAY, this IP device can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet).

2. Power Input

If your power input is DC12V. Please follow the description on the connector to connect to power.



PIN	NAME	DESCRIPTION
1	12V	DC Power Input
2	GND	Ground Pin

3. Power Input Audio & DIO input/output



PIN	NAME	DESCRIPTION
1	DIO PW	DC12VIN
2	DIO GND	DGND
3	DO	DO1_TO_OUTSIDE
4	DI	DI1_FROM_OUTSIDE
5	AO_GND	DGND
6	A_OUT	Audio_OUT_LR
7	AI_GND	DGND
8	A_IN	Audio_IN

4. Reset Button

Step 1: Switch off IP device by disconnecting the power cable

Step 2: Press and continue to hold the Reset Button. Reconnect the power cable while continuing to hold the reset button.

Step 3: Keep holding the reset button depressed around 6 seconds, release the reset button. The unit will start up with factory default settings.




5. Conduit Hole

These conduit holes are used for cables to go through.

2

Installation Procedure

There are three types of installation of this IP outdoor rugged dome series.

	Surface mount	Flush mount	Wall mount
Pictures			
Optional Bracket required		•	•

The mounting procedure can be divided into two parts,

1st: Connect the IP outdoor rugged dome series

2nd: Mount the IP outdoor rugged dome series

2.1 Connect the IP Outdoor Rugged Dome

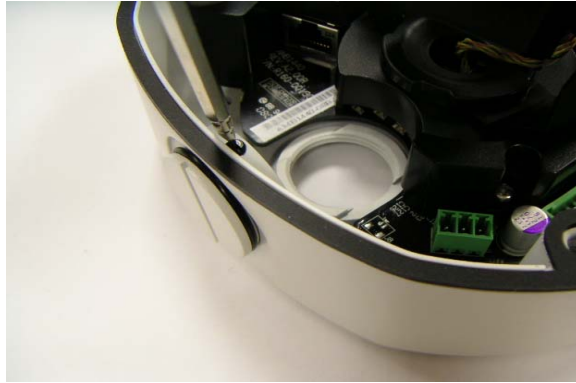
2.1.1 Remove the cover

Remove the dome cover with special hex wrench in the accessory bag.



2.1.2 Insert the cable

There are two conduit holes, one is at the dome bottom and the other one is at the side of rugged dome with plug. Remove the plug if your cable will go through the one at the side of rugged dome



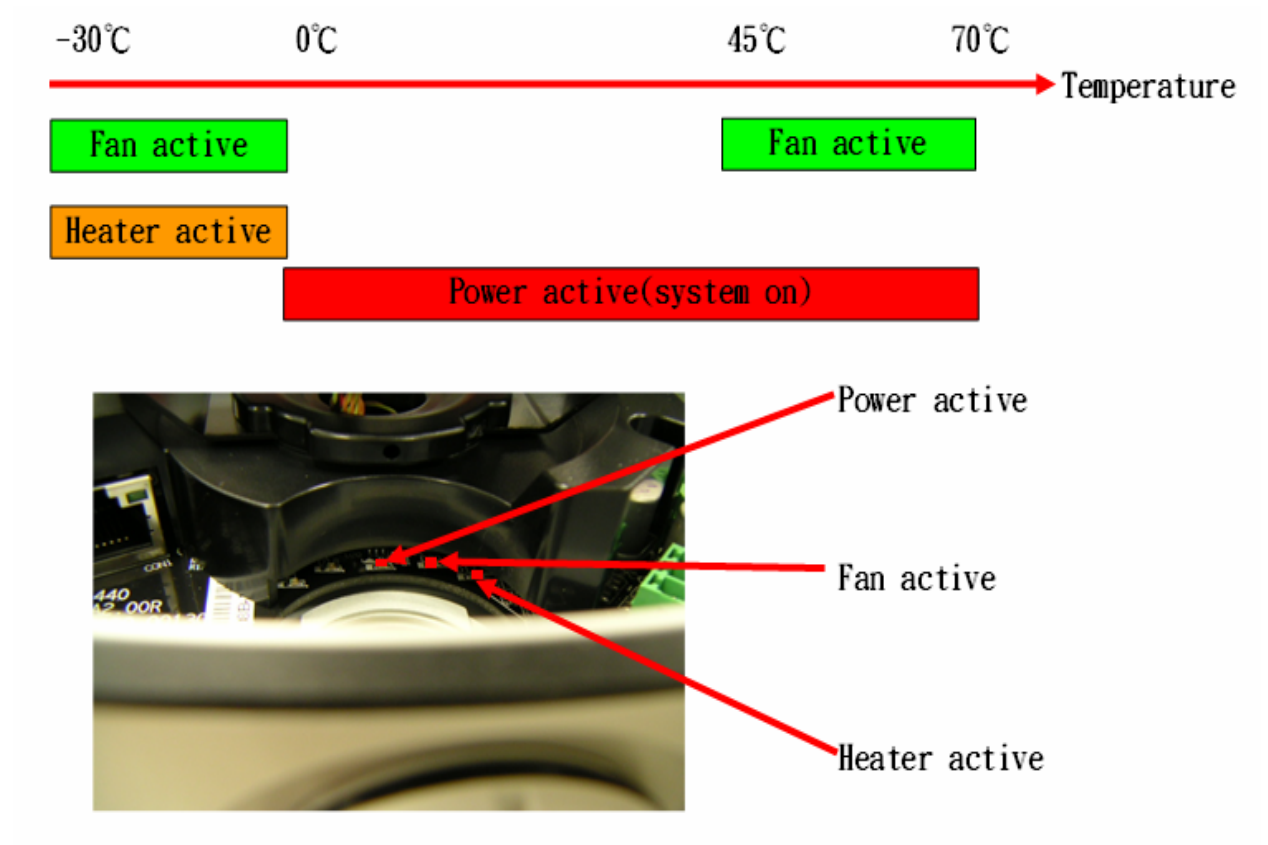
2.1.3 Connect cables to connectors

Please follow the instruction at Chapter 2: Physical Description, for how to connect to each connector.

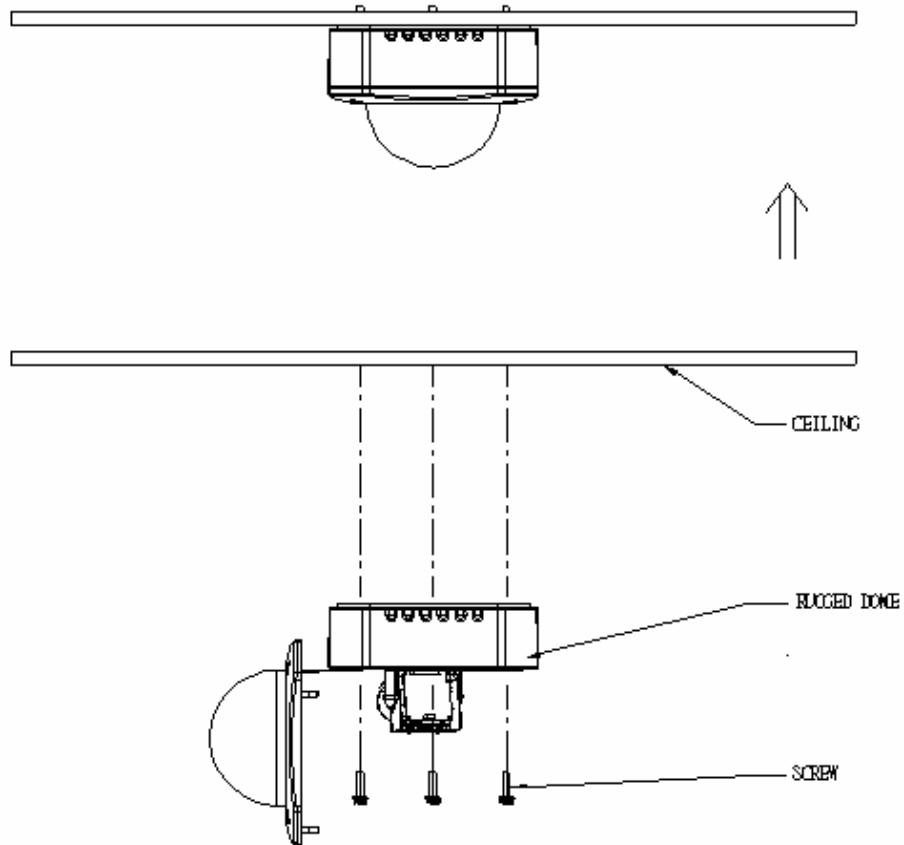


2.1.4 LED Description

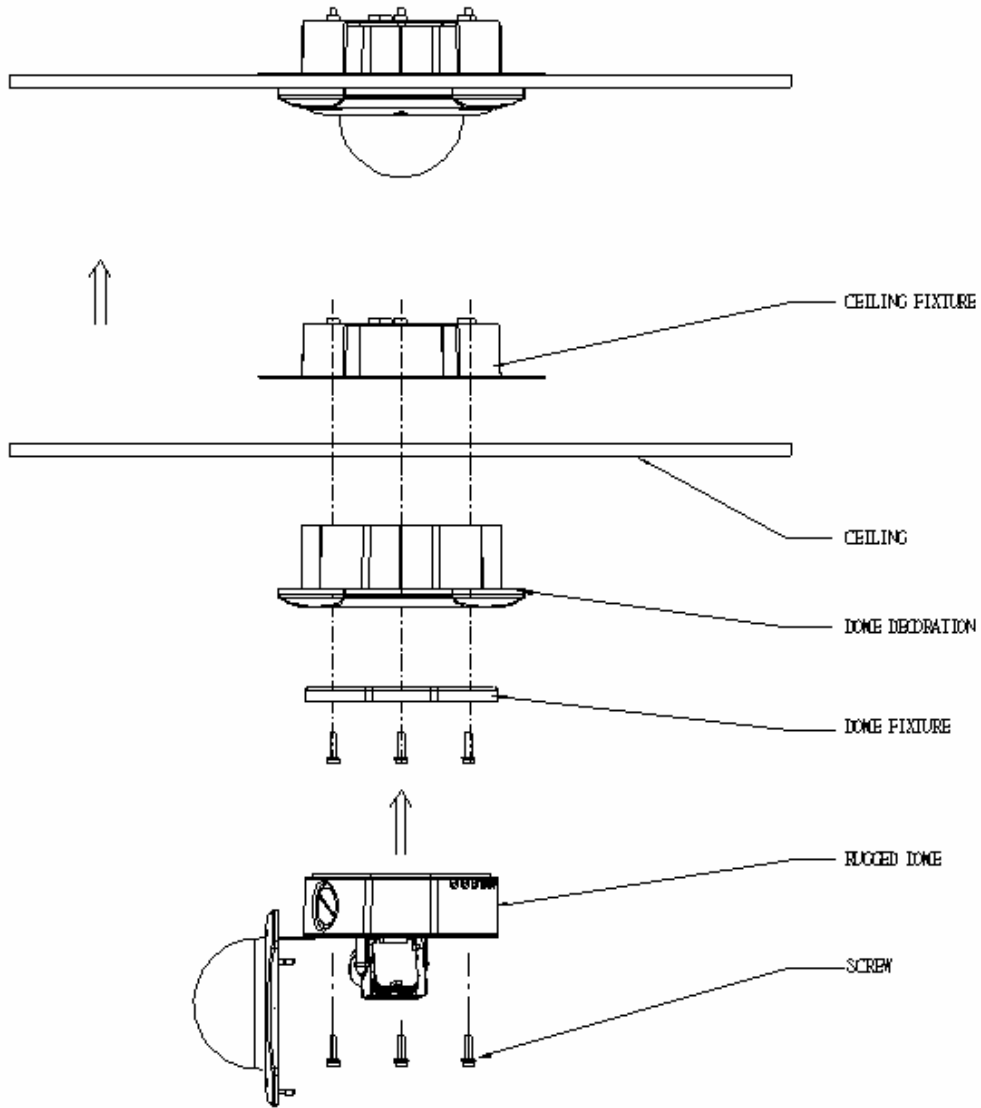
There are three LEDs in the system. They are indicators for power, fan and heater respectively. According to operating temperature, the different LED will be lighted for different situation.



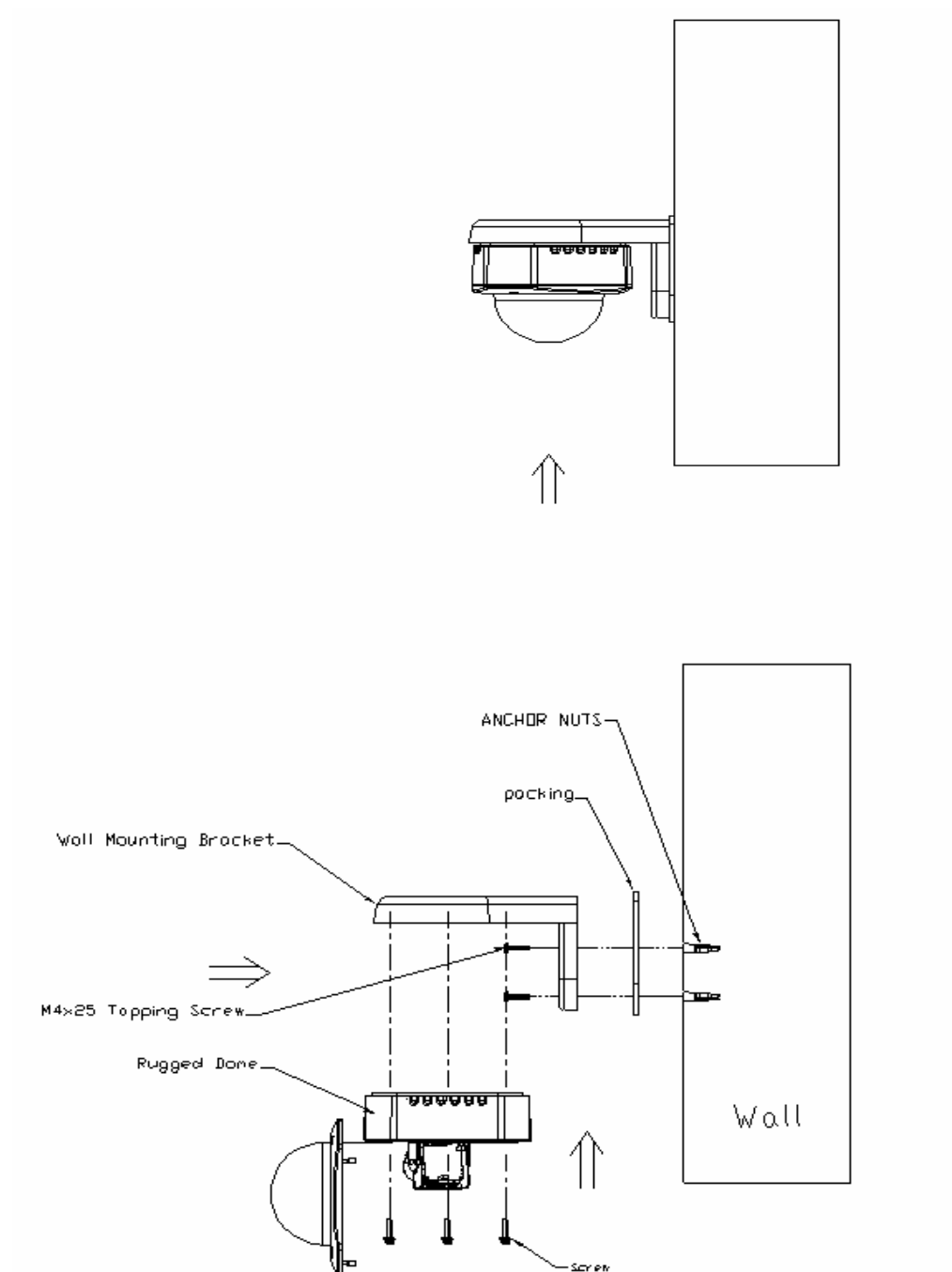
2.2 Mount the IP Outdoor Fixed Dome (Surface)



2.3 Mount the IP Outdoor Fixed Dome (Flush)



2.4 Mount the IP Indoor Fixed Dome (Wall)



3

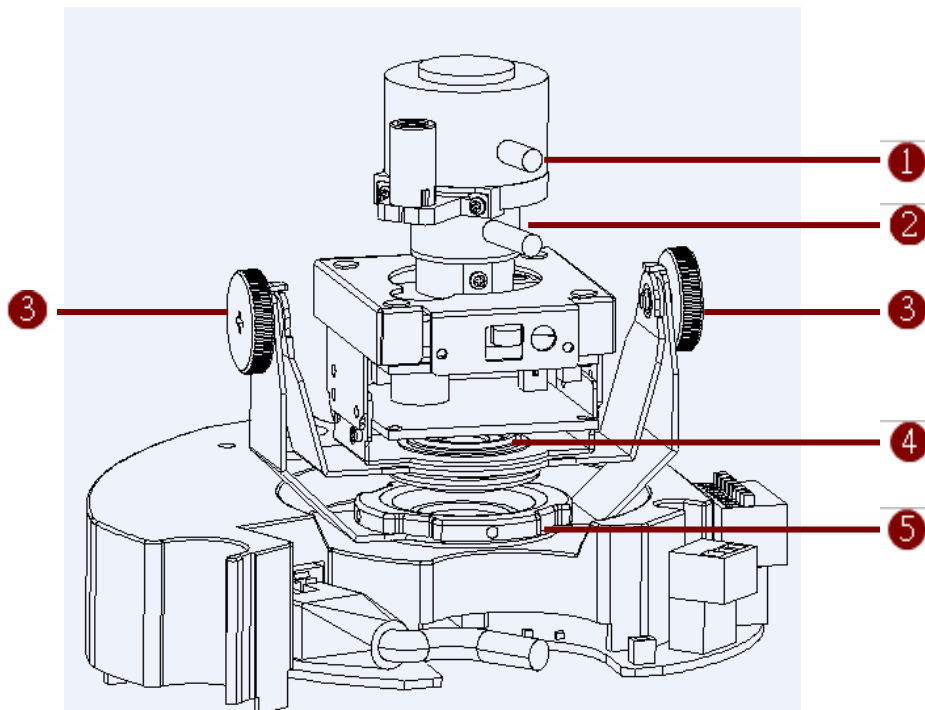
Adjust the camera

3.1 Adjust zoom and focus

Please adjust the camera direction first. Then move the focus and the zoom lever at the picture 1 to adjust the zoom and the focus. Fix the zoom and focus after adjusting.

3.2 Adjust camera functions

Refer to picture 1 for what can be adjusted and how to adjust.



Picture 1

1. focus lever
2. Zoom lever
3. Tilt adjustment screw
4. Image adjustment axis
5. Pan adjustment screw

4

Product Specification

		ACM-7411
Image	Device	Micron Progressive Scan CMOS
	Size	1/3 inch
	Pixels - Effective	1280 x 1024
Min. scene Illumination	Color	Color mode automatically switched to B/W mode under 4 Lux
	B/W	0.05 Lux at F1.0 (2400°K, 30 IRE)
	CDS Sensor	Yes
	IR Sensitivity	from 700nm to 1100 nm
Lens	Lens	f3.3~12mm / F1.6
	Viewing Angle	89.8° ~ 23.9° (Horizontal)
Camera Angel Adjustmeny	X (Panning)	0° ~360°
	Y (Tilting)	0° ~180°
	Z (Rotating)	0° ~360°
Synchronization	Sync. System	Internal
Day/Night Functions	Mechanical IR Cut Filter	Yes
	Motion Detection	Yes (3 Windows)
Functions	Electronic shutter	1/5 ~ 1/2,000 sec. (60Hz) 1/5 ~ 1/2,000 sec. (50Hz)
	Flickerless	1/120 sec. (60Hz) 1/100 sec. (50Hz)
	BLC	Yes
	AGC	Automatic (User definition)
	White Balance	6 Modes (AUTO,INDOOR1,INDOOR2,OUTDOOR1,OUTDOOR2, HOLD CURRENT,MANUAL) Configurable
	S/N Ratio	Better than 44 dB
Video Compression	Compression	MPEG-4 SP ,MJPEG selectable
	Picture Resolution	SXGA (1280x1024) HD 720 (1280x720) VGA (640x480) QVGA (320x240) QQVGA (160x112)
	Image Frame Rate	SXGA at 8 fps HD720 at 10 fps VGA at 30 fps QVGA at 30 fps QQVGA at 30 fps
	Audio Input	8kHz, Mono, PCM
Audio Output	Compression	8kHz, Mono, PCM
	Audio Line Output	Unbalanced, 1.4Vp-p, 1Vrms, terminal block
Alarm	Digital Input	1, terminal block
	Transistor Ouput	1, terminal block
External I/O	Reset Button	Factory Default
	LED	System Status
Casing	IP66 Rated	Weatherproof casing with IP66 standard
	Vandal Proof	Vandal proof supports, durability up to 619.3 KgF
	Mount Types	Surface / Flush / Wall
Network	Ethernet	Ethernet(10/100 Base-T), RJ45 Connector
	Protocol	TCP, UDP, IP, HTTP, DHCP, PPPoE, RTP, RTSP,FTP,SMTP,DNS,DDNS,NTP,ICMP,IGMP,ARP,3GPP
Software	Web Browser	Microsoft Internet Explorer 6.0 or above
	SDK	ActiveX control, C SDK
	Security	Password Protection: Configured by the Administrator
Operating	Temperature	-30°C~50°C (-22°F~122°F) for DC 12 V; -5°C ~ 50°C (7°F~122°F) for PoE
	Power Requirement	PoE(IEEE802.3af) with Class 3 3.4W (DC 12 V) w/o Heater & Fan
Power	Power Consumption	13.2W (DC 12 V) w/ Heate ON & Fan ON 4.4W (PoE) w/o Heater & Fan
	Dimensions (WxHxD)	151.69mm x 114.9 mm (6.0" x 4.5")
Physical	Weight	1040 g