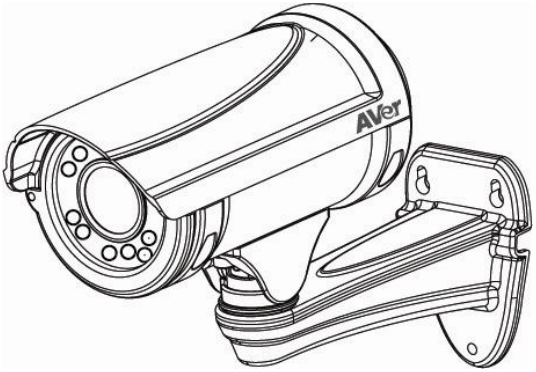
www.aver.com



AVer Bullet type Camera

Installation Guide

Table of Contents

IMPORTANT SAFEGUARD **1**

PACKAGE CONTENTS **2**

THE FOLLOWING ITEMS ARE INCLUDED IN THE PACKAGE. **2**

OPTIONAL ACCESSORIES **2**

BULLET IP CAMERA PARTS **3**

MOUNTING THE IP CAMERA **4**

DEPLOYING NETWORK 4

Network Connection via Ethernet Switch 4

Power over Ethernet Connection 5

CONNECTING EXTERNAL DEVICES TO I/O TERMINAL BLOCK 6

POWER LED 6

INTERNAL CONNECTION DIAGRAM OF DI/DO 6

MOUNTING THE IP CAMERA 7

FOCUSING THE IP CAMERA WITH BNC MONITOR 8

INSERT MICROSD CARD TO SYSTEM 9

HARDWARE RESET **10**

TECHNICAL SPECIFICATIONS **11**

FB2027-1 / FB2027-2 11

FB2027-3/ FB3027 15

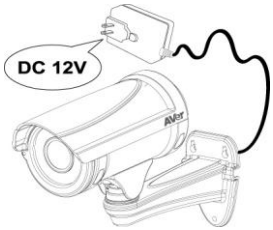
COPYRIGHT **19**

NOTICE **19**

WARNING **19**

GOVERNING LAW AND YOUR RIGHTS **20**

Important Safeguard



Do not use power supply with different voltage other than DC12V/PoE.



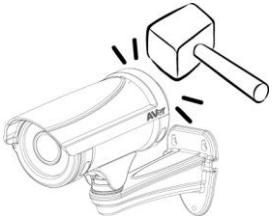
Do not submerge the unit in the water.



Unplug the power of this unit as soon as smoke or unusual odor is detected.



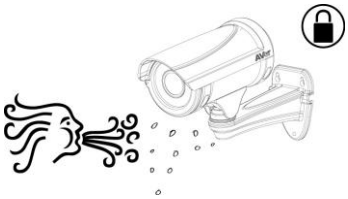
Unplug the power supply before cleaning. Use only a lens cleaning cloth and never use benzene, thinner, or other solvent for cleaning.



Do not attempt to service this unit by yourself. Always refer all servicing to qualified service personnel.



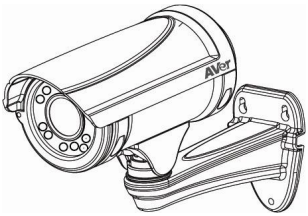
Do not place the unit in unsteady surface and also do not drop the unit.



Keep the IP camera housing close and prevent the dust from getting in the housing.

Package Contents

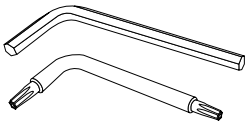
The following items are included in the package.



AVer bullet type camera



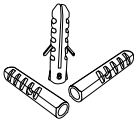
Software & Manual CD



2 L-type Wrenches

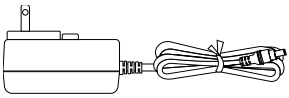


3 Screws



3 Plastic Anchors

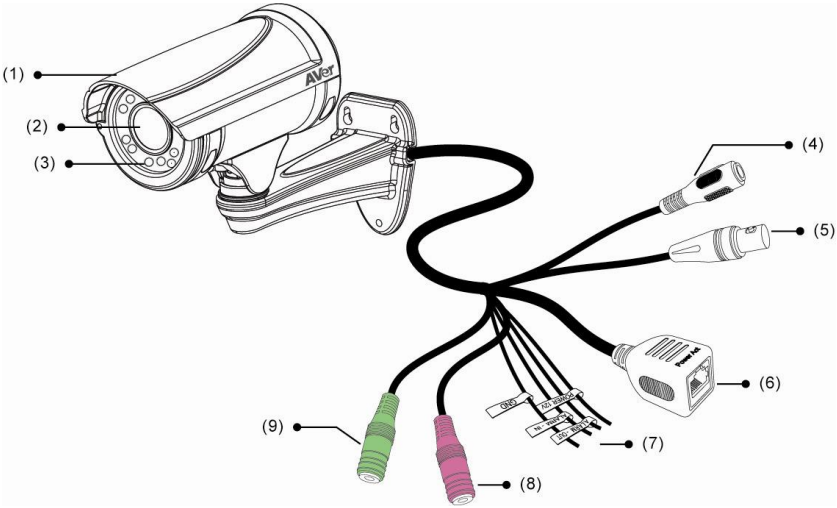
Optional Accessories



Power Adapter (12V, 2A) and Power cord

* The power adapter will vary depending on the standard power outlet of the country where it is sold. Depending on your package the power adapter maybe included.

Bullet IP Camera Parts



No.	Function	No.	Function
(1)	Sun Shield	(6)	RJ45 Ethernet Jack
(2)	Camera Lens	(7)	I/O cable
(3)	Light Sensor	(8)	Phone Jack (Audio In)
(4)	Power Jack	(9)	Phone Jack (Audio Out)
(5)	BNC Jack (Video Out)		

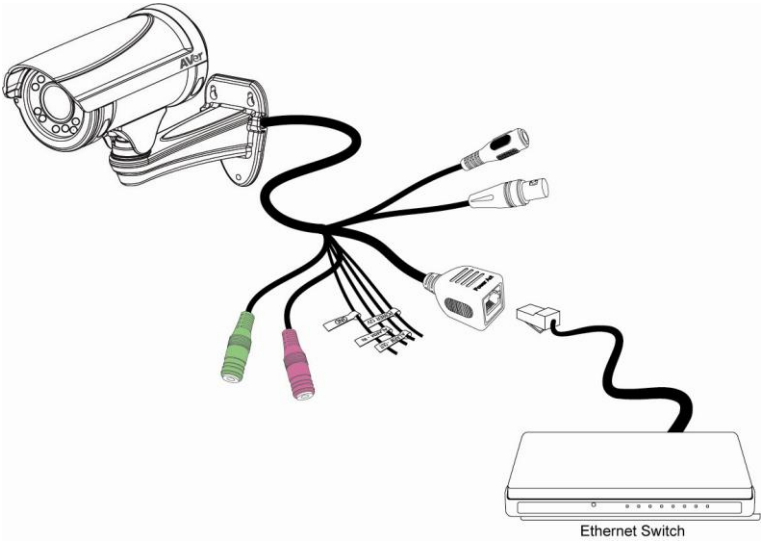
Mounting the IP Camera

This section provides useful tips on how to adjust the IP camera to meet your needs.

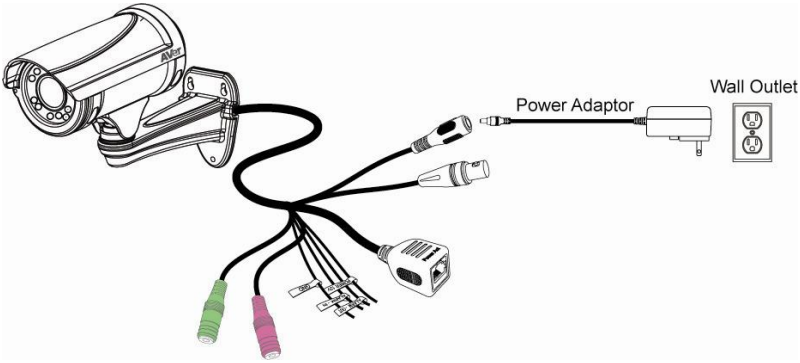
Deploying Network

Network Connection via Ethernet Switch

- **Connect the RJ45 cable from the Ethernet switch to RJ45 Ethernet jack of camera**



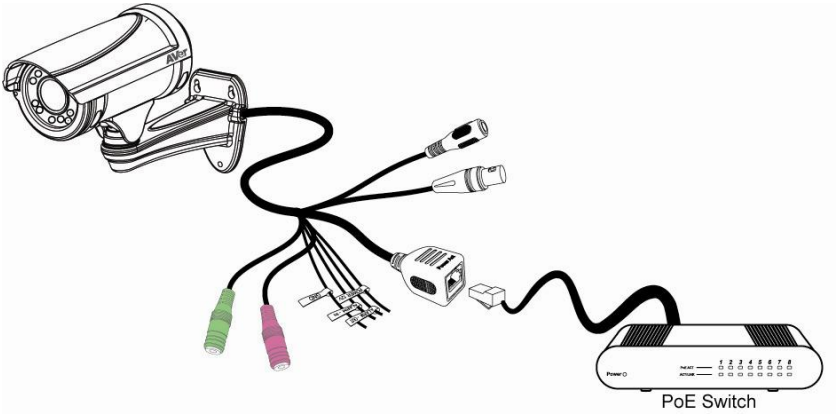
- **Connect the power adapter to power jack of camera.**



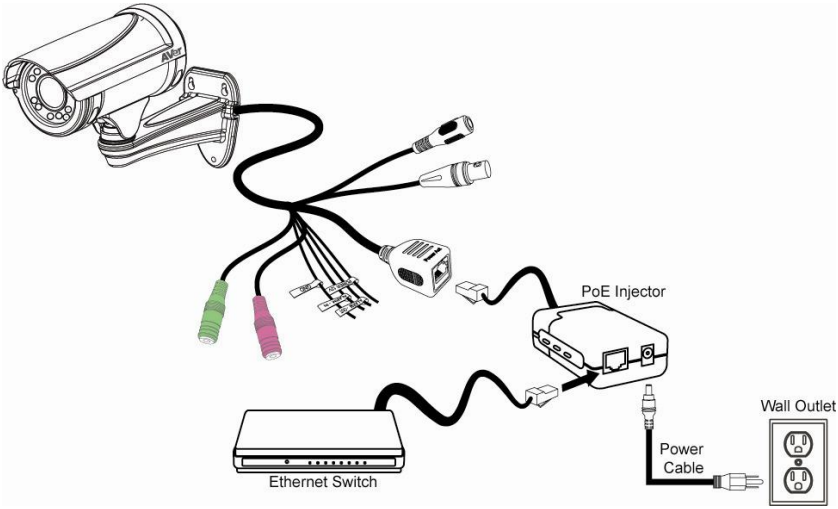
Power over Ethernet Connection

Bullet type camera is fully complies with PoE standard. It allows you to use PoE enabled switch or PoE injector to transmit data and power thru single Ethernet cable.

- **PoE Enabled Switch Connection Diagram**



- **PoE Injector Connection Diagram**



Connecting External Devices to I/O Cable

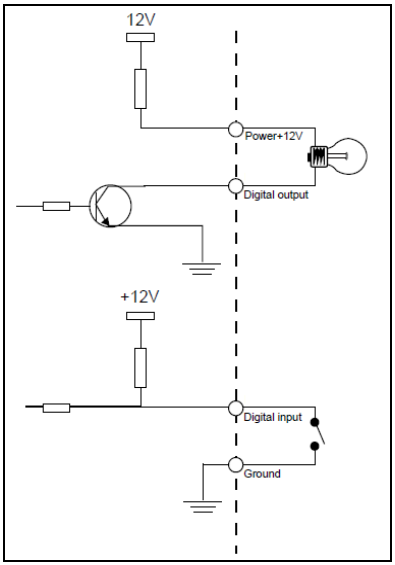
No.	Function
(1)	Power 12V
(2)	Digital Output
(3)	Digital Input
(4)	Ground

[Note] Maximum power output is 12V/100mA

Power LED

LED	Status
Steady Red	Heating
Blinking Green	System working
Steady Green	Booting
	Firmware updating
No Light	Power off

Internal Connection Diagram of DI/DO

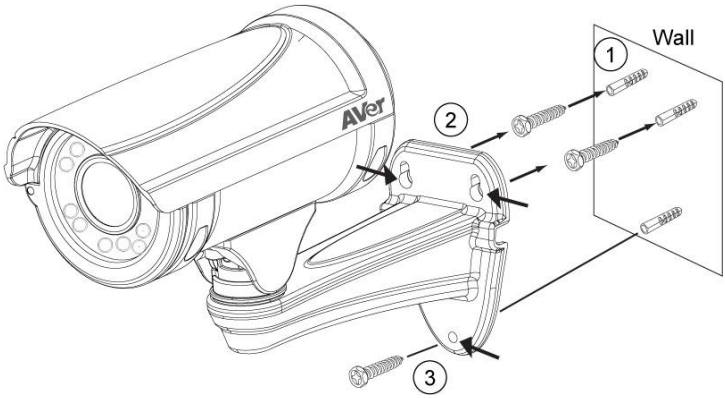


Mounting the IP Camera

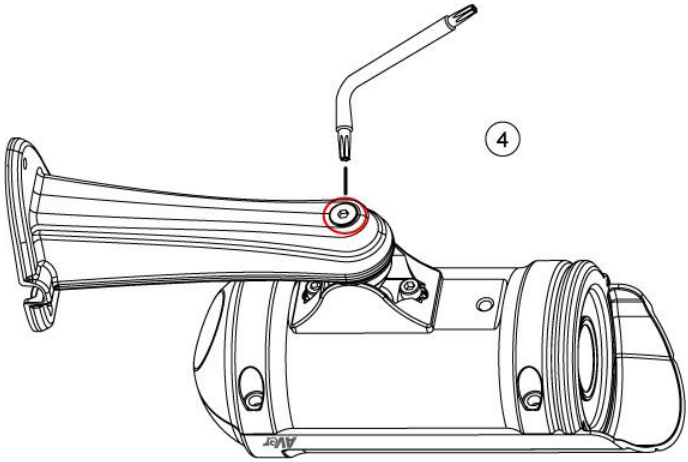
① Insert the 3 plastic anchors in the wall. Then, screws the 2 screws into the 2 top of plastic anchors and do not fasten the screws; leave some space to allow IP camera to hook on the screws.

② Hook the IP Camera on the screws that are screwed on top of 2 plastic anchors. Then, fasten the screws.

③ Secure the last screw at bottom hole of IP camera.



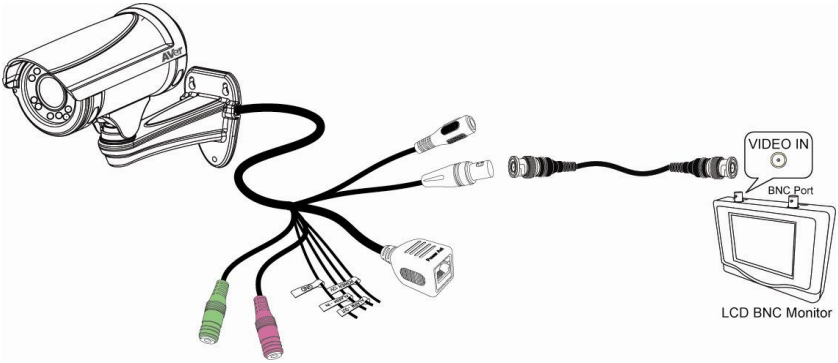
④ Use the torx pin head bolt to lose the screw under the stand to adjust the angel of IP camera. After adjusting, use the torx pin head bolt to fix the IP camera.



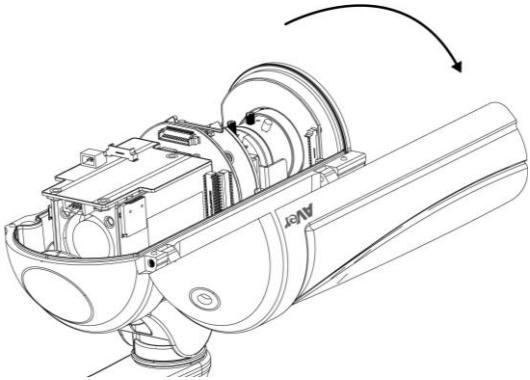
Focusing the IP Camera with BNC Monitor

The IP camera is supported with BNC analog video out jack which allows you to connect an analog display devices such as an LCD BNC monitor for you to adjust the camera focus and zoom.

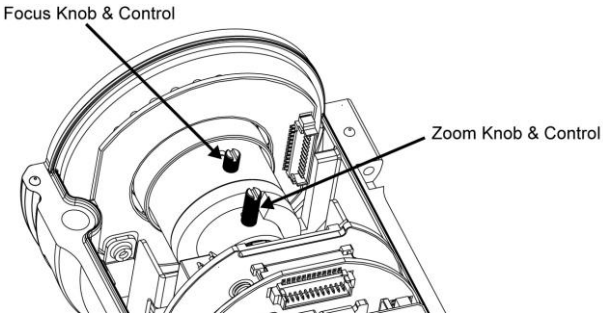
1. Connect the LCD BNC monitor to the BNC jack.



2. Open the IP camera case.

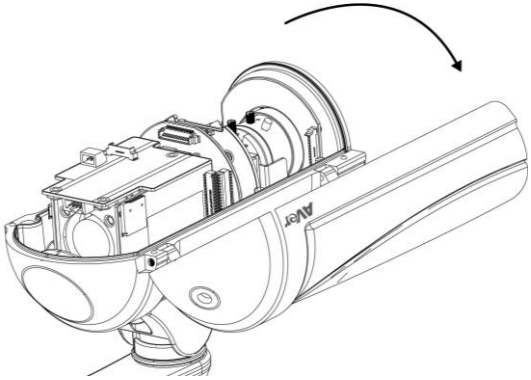


3. Slightly loosen the focus and zoom control knobs and adjust the focus and zoom range. Slightly tighten the focus and zoom knobs once you are done adjusting.

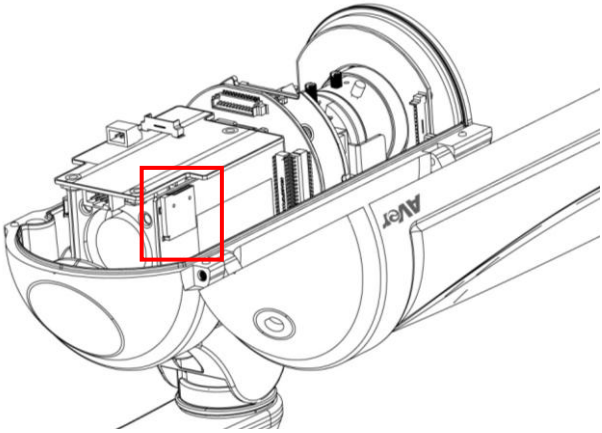


Insert microSD Card to System

1. Open the IP camera case.



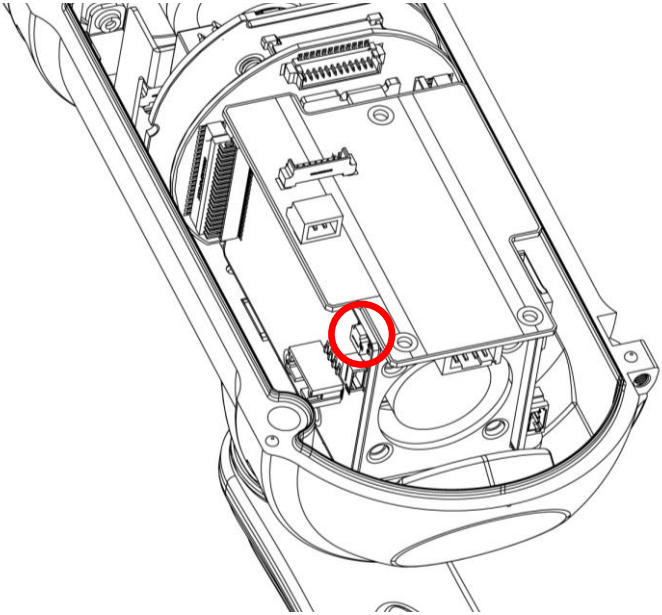
2. Insert microSD card



[Note] We recommend to use industrial grade microSD card (support operating temp from -40°C to 85°C) for extreme temperature condition.

Hardware Reset

1. Open the IP camera case.
2. Short PJ1 pins around 10 seconds.



WARNING!!

This will cause all the configuration settings back to factory default.

Technical Specifications

■ FB2027-1 / FB2027-2

Model	FB2027-1	FB2027-2
Lens spec.	**PTN-2M4016IR**	**PTN-2M6016IR**
Lens type	fixed focal Lens (Board Mount M12 P0.5)	
F/no	F1.6	
Iris type	Fixed	
Focal length	4.0mm	6.0mm
View Angle	H 62.4° V 46.5°	H 46.8° V 34.7°
Camera image		
Min. illumination	1 Lux in day mode (IR off) 0.15 Lux in night (IR off) 0 Lux in night mode (IR on)	
Built-in LED	Yes	
IR distance	30M	
Built-in mechanical ICR	Yes	
Auto IRIS	Yes	
Video		
Compression	H.264/MPEG-4/MJPEG	
Max. resolution	1920 x 1080	
Frame rate	1920 x 1080 @ 30fps	
H.264/MPEG-4 bit rate mode	VBR, 5 levels CBR, 64/128/512/768Kbps & 1/2/3/4/6/8/10/12Mbps	
MJPEG quality	5 levels	
Regional of Interest	Yes	
Smart Stream	Yes, 5 windows	
Image orientation	mirror, flip	
Motion Detection zones	3	
Privacy mask areas	3	

Model	FB2027-1	FB2027-2
Video		
BLC	Yes	
D-WDR	Yes	
De-noise	2D/3D	
Day & night function	Auto/Manual/Schedule	
ePTZ	Yes	
Audio		
Encoder	G.711 (μ-law)/G.726 (bit rate 16K~64bps) /AAC audio compression	
Streaming	2-ways audio	
Microphone	External microphone input	
Network		
Protocols	TCP/IP (IPv4/IPv6), HTTP, HTTPS, UPnP, SMTP, FTP, DHCP, NTP, DDNS, PPPoE, Samba, QoS, SNMP(V1/V2c/V3), 802.1X	
Ethernet	10/100 Base-T, RJ45 connector	
ONVIF	V2.X (Profile S), conformance test V12.06	
Security	Password protection/IP Filter	
Users	up to 10 users simultaneously	
Event		
Profiles	32 sets	
Triggers	Alarm Interval, Motion Detection Region, Digital Input SD Card, Network	
Actions	Trigger: Digital Output, Alarm Audio Send out video clip: FTP, NAS, SD card Send out snapshot / log: FTP, NAS, SD card, mail	
Interface		
Digital input/output	1/1	
BNC Video output	Yes	
Built-in storage option	Micro SDHC & SDXC card (64GB max.)	

Model	FB2027-1	FB2027-2
Interface		
Built-in microphone	N/A	
External microphone input	Yes	
External Audio output	Yes	
General		
Power supply	DC 12V(2A)/PoE	
Power consumption	**PoE (TYP.):** 6.4W (LED/Heater off) 10.6W (LED on, Heater off) 18.5W (LED off, Heater on) 19.7W (LED/Heater on)	
	DC-IN (TYP.): 4.6W (LED/Heater off) 8.2W (LED on, Heater off) 14.6W (LED off, Heater on) 15.7W (LED/Hearer on)	
PoE	PoE Class 4 (IEEE802.3at)	
Dimensions	200 mm x 82.1 mm x 82.2 mm (L x H x W) w/o bracket	
Net weight	1110g	
Temperature and humidity	-15°C~45°C, 20%~90% Cold Start -25°C~45°C, 20%~90% Operating	
IP Rating	IP67	
Software Requirement		
OS	Windows® XP/7/8	
Browser	IE 8/9/10 (Full Function), Chrome, Firefox and Safari (Basic Function)	
Firmware remote upgrade	Yes (via HTTP)	
Bundle Software		
VMS (NXU Lite)	Free up to 32CH	
IPCAM Utility	Yes	

Model	FB2027-1	FB2027-2
Warranty		
Main body	2 years	
Accessories	1 year	

■ FB2027-3/ FB3027

Model	FB2027-3	FB3027
Lens spec.	**PTK-2M2812N14IR**	
Lens type	vari-focal Lens (Board mount, M14)	
F/no	F1.4	
Iris type	DC Iris	
Focal length	2.8~12mm	
View Angle	H 97°(W)~28.7°(T) V 61.2°(W)~21.6°(T)	
Camera image		
Min. illumination	1 Lux in day mode (IR off) 0.15 Lux in night (IR off) 0 Lux in night mode (IR on)	
Built-in LED	Yes	
IR distance	30M	
Built-in mechanical ICR	Yes	
Auto IRIS	Yes	
Video		
Compression	H.264/MPEG-4/MJPEG	
Max. resolution	1920 x 1080	2048 x 1536
Frame rate	1920 x 1080 @ 30fps	2048 x 1536 @ 20fps (Wide Angle) 1920 x 1080 @ 30fps (Normal mode)
H.264/MPEG-4 bit rate mode	VBR, 5 levels CBR, 64/128/512/768Kbps & 1/2/3/4/6/8/10/12Mbps	
MJPEG quality	5 levels	
Regional of Interest	Yes	
Smart Stream	Yes, 5 windows	
Image orientation	mirror, flip	

Model	FB2027-3	FB3027
Video		
Motion Detection zones	3	
Privacy mask areas	3	
BLC	Yes	
D-WDR	Yes	
De-noise	2D/3D	
Day & night function	Auto/Manual/Schedule	
ePTZ	Yes	
Audio		
Encoder	G.711 (μ-law)/G.726 (bit rate 16K~64bps) /AAC audio compression	
Streaming	2-ways audio	
Microphone	External microphone input	
Network		
Protocols	TCP/IP (IPv4/IPv6), HTTP, HTTPS, UPnP, SMTP, FTP, DHCP, NTP, DDNS, PPPoE, Samba, QoS, SNMP(V1/V2c/V3), 802.1X	
Ethernet	10/100 Base-T, RJ45 connector	
ONVIF	V2.X (Profile S), conformance test V12.06	
Security	Password protection/IP Filter	
Users	up to 10 users simultaneously	
Event		
Profiles	32 sets	
Triggers	Alarm Interval, Motion Detection Region Digital Input, SD Card, Network	
Actions	Trigger: Digital Output, Alarm Audio Send out video clip: FTP, NAS, SD card Send out snapshot / log: FTP, NAS, SD card, mail	

Model	FB2027-3	FB3027
Interface		
Digital input/output	1/1	
BNC Video output	Yes	
Built-in storage option	Micro SDHC & SDXC card (64GB max.)	
Built-in microphone	N/A	
External microphone input	Yes	
External Audio output	Yes	
General		
Power supply	DC 12V(2A)/PoE	
Power consumption	**PoE (TYP.):** 6.4W (LED/Heater off) 10.6W (LED on, Heater off) 18.5W (LED off, Heater on) 19.7W (LED/Heater on)	
	DC-IN (TYP.): 4.6W (LED/Heater off) 8.2W (LED on, Heater off) 14.6W (LED off, Heater on) 15.7W (LED/Hearer on)	
PoE	PoE Class 4 (IEEE802.3at)	
Dimensions	200 mm x 82.1 mm x 82.2 mm (L x H x W) w/o bracket	
Net weight	1110g	
Temperature and humidity	-15°C~45°C, 20%~90% Cold Start -25°C~45°C, 20%~90% Operating	
IP Rating	IP67	
Software Requirement		
OS	Windows® XP/7/8	
Browser	IE 8/9/10 (Full Function), Chrome, Firefox and Safari (Basic Function)	
Firmware remote upgrade	Yes (via HTTP)	

Model	FB2027-3	FB3027
Bundle Software		
VMS (NXU Lite)	Free up to 32CH	
IPCAM Utility	Yes	
Warranty		
Main body	2 years	
Accessories	1 year	

COPYRIGHT

© 2013 AVer Information Inc. All rights reserved.
All rights of this object belong to AVer Information Inc. Reproduced or transmitted in any form or by any means without the prior written permission of AVer Information Inc. is prohibited. All information or specifications are subject to change without prior notice. “AVer” is a trademark owned by AVer Information Inc. Other trademarks used herein for description purpose only belong to each of their companies.

NOTICE

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCE ONLY.

WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.



THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

Limited Warranty

AVer Information, Inc. (“AVer”) warrants that the applicable product (“Product”) substantially conforms to AVer’s documentation for the product and that its manufacture and components are free of defects in material and workmanship under normal use. “You” as used in this agreement means you individually or the business entity on whose behalf you use or install the product, as applicable. This limited warranty extends only to You as the original purchaser. Except for the foregoing, the Product is provided “AS IS.” In no event does AVer warrant that You will be able to operate the Product without problems or interruptions, or that the Product is suitable for your purposes. Your exclusive remedy and the entire liability of AVer under this paragraph shall be, at AVer’s option, the repair or replacement of the Product with the same or a comparable product. This warranty does not apply to (a) any Product on which the serial number has been defaced, modified, or removed, or (b) cartons, cases, batteries, cabinets, tapes, or accessories used with this product. This warranty does not apply to any Product that has suffered damage, deterioration or malfunction due to (a) accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification or failure to follow instructions included with the Product, (b) misapplication of service by someone other than the manufacturer’s representative, (c) any shipment damages (such claims must be made with the carrier), or (d) any other causes that do not relate to a Product defect. The Warranty Period of any repaired or replaced Product shall be the longer of (a) the original Warranty Period or (b) thirty (30) days from the date of delivery of the repaired or replaced product.

Limitations of Warranty

AVer makes no warranties to any third party. You are responsible for all claims, damages, settlements, expenses, and attorneys' fees with respect to claims made against You as a result of Your use or misuse of the Product. This warranty applies only if the Product is installed, operated, maintained, and used in accordance with AVer specifications. Specifically, the warranties do not extend to any failure caused by (i) accident, unusual physical, electrical, or electromagnetic stress, neglect or misuse, (ii) fluctuations in electrical power beyond AVer specifications, (iii) use of the Product with any accessories or options not furnished by AVer or its authorized agents, or (iv) installation, alteration, or repair of the Product by anyone other than AVer or its authorized agents.

Disclaimer of Warranty

EXCEPT AS EXPRESSLY PROVIDED OTHERWISE HEREIN AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, AVER DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO THE PRODUCT, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION, SATISFACTORY QUALITY, COURSE OF DEALING, TRADE USAGE OR PRACTICE OR THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT OF THIRD PARTY RIGHTS.

Limitation of Liability

IN NO EVENT SHALL AVER BE LIABLE FOR INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, DATA, REVENUE, PRODUCTION, OR USE, BUSINESS INTERRUPTION, OR PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES ARISING OUT OF OR IN CONNECTION WITH THIS LIMITED WARRANTY, OR THE USE OR PERFORMANCE OF ANY PRODUCT, WHETHER BASED ON CONTRACT OR TORT, INCLUDING NEGLIGENCE, OR ANY OTHER LEGAL THEORY, EVEN IF AVER HAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. AVER'S TOTAL, AGGREGATE LIABILITY FOR DAMAGES OF ANY NATURE, REGARDLESS OF FORM OF ACTION, SHALL IN NO EVENT EXCEED THE AMOUNT PAID BY YOU TO AVER FOR THE SPECIFIC PRODUCT UPON WHICH LIABILITY IS BASED.

Governing Law and Your Rights

This warranty gives you specific legal rights; You may also have other rights granted under state law. These rights vary from state to state.