

NM-IPCAM

IP Security Camera Indoor/Outdoor Selectable Resolution



The NetMedia® iViewHD™ Internet Protocol (IP) cameras connect to a Power over Ethernet (PoE) network switch, such as the NetMedia POEmax, for distribution across a local computer network or The Internet. They provide live viewing of their Motion JPEG (MJPEG) images through various web browsers such as Microsoft Internet Explorer, Apple Safari, Mozilla Firefox, and Google Chrome. Live viewing plus recording and playback are also available through Network Video Recorders (NVRs) that support MJPEG video streams and manual/custom/generic camera command strings.

Please visit iViewHD.com for full User Manual and camera firmware updates.

Product Includes:

1. Camera Assembly (Camera, Housing, Housing Cap, Lens, Elbow Bracket, Locking Ring, Base, Gasket, Ethernet Jack, Speaker).

2. Mounting Screws.

* No power supply included, requires separate PoE power source.

Speaker
(Inside) Beeps when powered on.

Elbow Bracket
Adjusts camera angle at base, screw, and housing. Installs in 1/2" junction box covers.

MAC Address
Located on sticker. Provides model information and unique Ethernet ID.



Ethernet Jack
RJ-45 for video and power via PoE network switch.



Camera Lens
F3.2, 59.9° diagonal angle

Housing Cap
Externally threaded to accept 37mm lenses and accessories.

Base, Gasket & Screws
Mounts camera to surface or round 4" junction box.

Locking Ring
Secures elbow bracket to base at desired position.

Housing Available in UV Paintable White:	
Resolution	iViewHD Model
1600x1200	NM-IPCAM-2M
720x536	NM-IPCAM-D1

FEATURES

- 2M: Up to Two Megapixel 1600x1200 image
- D1: Up to 720x536 High Resolution D1 image
- Variable resolution down to 160x120
- IEEE 802.3af Power over Ethernet (PoE) operation
- Electronic exposure and white balance
- Up to 4 IP addresses - DHCP, Link Local, 2 Static
- Tough billet aluminum housing
- Weather resistant enclosure
- Mounts to standard electrical fixtures
- Accepts photo lens accessories
- Internally routed tamper resistant wiring
- FCC Class B and CE certification
- One year limited warranty

SPECIFICATIONS

Camera Lens:	F3.2, 59.9° diagonal
Image Sensor:	Two Megapixel (2Mp) 1/4" CMOS
Output Connector:	TCP/IP Power over Ethernet RJ-45
Supported Formats:	Motion JPEG (MJPEG), Still JPEG
2M Supported Resolutions:	1600x1200-160x120 + SXGA, XGA, SVGA, XD1, VGA, QVGA, CIF
D1 Supported Resolutions:	720x536-160x120 + VGA, QVGA, CIF
Power Requirement:	Power over Ethernet (PoE) 2.5 Watts
External Accessory Threads:	37mm x .75 pitch
Housing Size:	2.13" dia. x 3" long
Base Size:	4.5" dia., .75" high, 1/2" hole
Mounting Holes:	3.5" centers
Weight:	1 lb. (subject to change without notice)

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IPCAM

Quick Setup Procedures:

1. Mount base to desired surface using included hardware. Readjust camera angles once image is available through browser.
2. Connect Ethernet Jack to Power over Ethernet (PoE) network switch or injector that also connects to computer network.
3. To find the camera on your network, open the iViewFind utility available from iViewHD.com downloads or open a computer browser that supports Bonjour (mDNS) such as Apple Safari.
4. View image or change camera settings such as resolution and compression if desired. Press Save Parameters button to make new settings the default.
5. Connect to an NVR for recording and playback as directed by its product manufacturer using iViewHD's IP address, iViewHD's port (default 80), and iViewHD's minimum get image command string:
<http://IP-Address/image.cgi?CAPTURE=YES&STREAM=1&COMMAND=>
6. See the User Manual for complete instructions and additional methods of locating the camera.

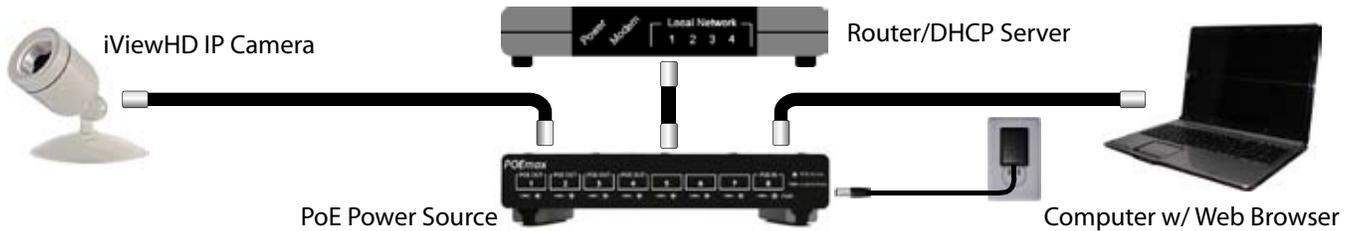
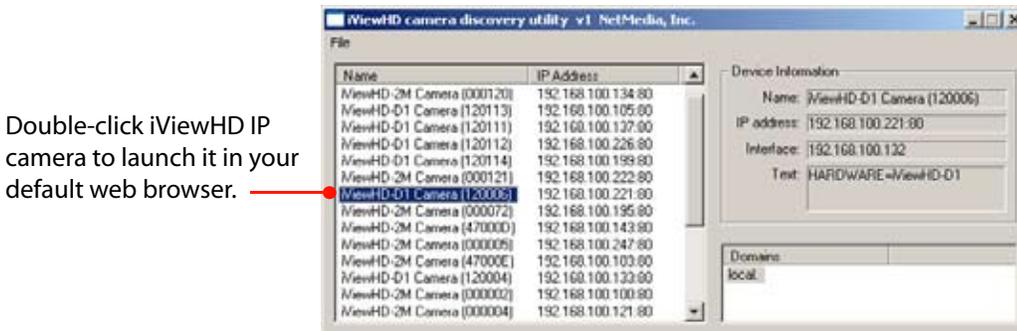


Figure 1 - Connect IP camera to PoE network device such as NetMedia POEmax switch for power and computer connectivity.



Double-click iViewHD IP camera to launch it in your default web browser.

Figure 2 - Running the iViewFind utility to find your iViewHD IP camera and display it with a web browser.



Figure 3 - iViewHD Image page for viewing camera output and adjusting, saving, and restoring camera settings.





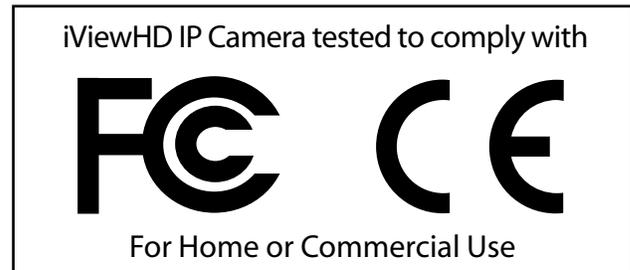
FCC Information (U.S.A.):

Important: This product, when installed as specified, meets FCC requirements. Modifications not expressly approved by NetMedia may void your authority, granted by the FCC, to use the product. Failure to follow all installation instructions could void your FCC authorization to use the product in the USA.

FCC Compliance Information Statement

(Declaration of Conformity Procedure)

We,
NetMedia, Inc.
10940 N. Stallard Pl.
Tucson, AZ 85737
(520-544-4567)
declare under our sole responsibility that the following products,



Type of Equipment: Internet Protocol Camera

Model: NM-IPCAM-2M Model: NM-IPCAM-D1

to which this declaration relates are in conformity with the Title 47 of the US Code of Federal Regulations, Part 15 covering Class B digital devices.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Warning

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- * Reorient or relocate the receiving antenna.
- * Increase the separation between the equipment and receiver.
- * Connect the equipment to a different outlet on a circuit other than the one the receiver is connected to.
- * Consult the dealer or an experienced radio/TV technician for help.

CE-Mark Warning

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

One Year Limited Warranty

NetMedia, Inc. warrants this product to be free from defects in materials and workmanship under normal use and service for One Year from the date of purchase or NetMedia will repair or, at its option, replace the defective product. Please keep your purchase receipt. In the unlikely event that you need warranty service, call NetMedia at 1-520-544-4567 for a Return Material Authorization (RMA) number. Then, return the product, with the RMA number clearly marked on the package, by a traceable method with freight pre-paid and accompanied by a copy of the purchase receipt to:

Attn: Customer Service, NetMedia, Inc. 10940 N. Stallard Place, Tucson, AZ 85737-9527

No expressed or implied warranty is made for any defects in this product which result from accident, abuse, failure to operate the product in accordance with relevant instructions, neglect, immersion in or exposure to chemicals or liquid, extreme climate, excessive wear and tear and defect resulting from other extraneous causes such as unauthorized disassembly, repair and or modification. Any implied warranty arising from the sale of this product, including implied warranties of merchantability and fitness for a particular purpose, are limited to the warranty stated above. NetMedia shall not be responsible for any loss, damages or expenses, whether direct, consequential or incidental that arise from the use or inability to use this product. Some states do not allow limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

Frequently Asked Questions

Q- How do I update the firmware or web pages in my camera?

A- Download and unzip the latest version from iViewHD.com. Select the camera's Update tab. Browse to and select the unzipped files (Firmware first, Website second) on your computer then press Update iViewHD.

Q- Where do I get the full iViewHD User Manual?

A- The User Manual is available for viewing and downloading from the iViewHD.com website. It contains more detailed information about the camera's controls, web pages and commands along with helpful information regarding networks and finding the camera with or without Bonjour.

Q- Where can I get more help for setting up my camera or putting it on The Internet?

A- The iViewHD user forum at <http://www.netmedia.com/forums> provides an environment where users and developers share knowledge for implementing, supporting and improving the product and its features.

Q- How do I make my camera settings the default ones on startup?

A- The Save Parameters button will make your settings active when the camera starts. The Restore Parameters button will reload your saved settings. Reloading a new firmware or website version, pressing the Set to Factory Defaults button (Admin Page), or using the camera Reset Button will erase your saved settings.

Q- Why does my frame rate automatically change and how can I maximize it?

A- There is a camera frame rate and a browser frames-per-second (fps) rate. The camera rate is how fast it can produce an image. It is primarily affected by light conditions, resolution, and compression. The fastest rate is "Best for Day" but it requires bright light. In addition, the camera may automatically change to "Best for Night" under certain conditions such as UXGA mode. The fastest camera rate is achieved with bright light (Best for Day), low resolution (< VGA), and high compression (> 20). The browser fps rate reflects the camera rate plus computer and browser speed, plus network speed, plus network bandwidth. Large amounts of network data transfer from this camera, other cameras, and other network devices will drastically reduce bandwidth. The fastest browser fps is achieved with a fast camera frame rate across fast, high bandwidth local network equipment to fast computers.

Q- Why does Internet Explorer seem slower than other browsers?

A- Internet Explorer must use the Adobe Flash plugin to display Motion JPEG images whereas the other browsers support MJPEG directly. The extra Flash processing slows down browser performance. The Opera browser does not require Flash but it displays better with the Flash option.

Q- How can I control the camera settings through an NVR or custom web page?

A- iViewHD accepts HTTP commands that may be used with NVR software or custom web pages to control the operation of the camera. These commands are case sensitive. See the User Manual for more information including the complete command list. The general form of the HTTP command string is as follows:

<http://IP-Address/image.cgi?CAPTURE=YES/NO&STREAM=0/1&COMMAND=commands>

- **IP-Address** is the IP-Address or the Bonjour (if installed) name of the camera.
- **YES/NO** is either the word YES or NO and is used to indicate if an image is to be CAPTURED after the commands that follow are processed. Usually you set this to YES to begin capturing video or still pictures. You would set this to NO if you just want to change some camera parameter without receiving an image. This is useful if you are changing parameters while another computer is capturing images.
- **0/1** is either the number 0 or 1 and indicates if images are to be streamed or not. A 0 means only a single JPEG image is to be returned while a 1 means that multiple JPEG (MJPEG) images are to be returned/streamed.
- **commands** is a list of commands separated by commas described below. The COMMAND= parameter should always be present even if there are no commands included afterwards. Some example commands are:
 - COMP: 0..45 Compression level (Default 11)
 - 0 is lowest compression (best image quality) - large file size
 - 45 is highest compression (worst image quality) - small file size
 - MODE: UXGA, SXGA, XGA, SVGA, VGA, QVGA, QQVGA or CIF - or numeric corresponding value 0..8 (Default XD1)

UXGA 0 - 1600x1200	SXGA 1 - 1280x960	XGA 2 - 1024x768
SVGA 3 - 800x600	XD1 4 - 720x536	VGA 5 - 640x480
QVGA 6 - 320x240	QQVGA 7 - 160x120	CIF 8 - 400x298
 - RATE: 0..2 (default varies based on resolution and compression)
 - 0 - Best for Night
 - 1 - Better for Night
 - 2 - Best for Day

This example streams images at QVGA resolution with compression level 6 and Better for Night frame rate:

[/image.cgi?CAPTURE=YES&STREAM=1&COMMAND=MODE:XD1,COMP:6,RATE:1](http://image.cgi?CAPTURE=YES&STREAM=1&COMMAND=MODE:XD1,COMP:6,RATE:1)