

# NM-POCVCAM

## Power over Coax Camera Indoor/Outdoor Weather Resistant



### Varifocal Color

The NetMedia POCVCAM Varifocal color camera manually zooms from 3.3mm to 8.0mm in focal length to meet a variety of surveillance requirements. It utilizes a built-in NetMedia Power over Coax (PoC) Video Encoder and external PoC Video Decoder to exchange power and video across a single coax cable, such as RG6. There is no need to run multiple cables to the camera location! It mounts to a typical round 4 inch junction box and is viewed with a security monitor or television. To view the camera on a single standard television, use the TV's composite RCA Video Input jack.

#### Product Includes:

1. Camera Assembly (Camera, Housing, Varifocal Lens, Lens Casing, Elbow Bracket, Locking Ring, Base, Gasket, PoC Video Encoder, F-Connector).
2. NetMedia PoC Video Decoder and 24V DC 200mA Power Transformer.
3. Mounting Screws and RCA Video Cable.

#### Housing

Available in white: NM-POCVCAM-DW  
Connects to Lens Casing at this point.

#### PoC Video Encoder

Built into camera - exchanges power and video with Decoder for One Wire Video™ on coax cable.

#### Elbow Bracket

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

#### F-Connector

Transmits both power and video across a single coax.

#### F-Connector

Connects to camera F-Connector with a single coax such as RG6.

#### Power Input

Connects to 24V DC wall transformer (included) and AC outlet.

#### RCA Video Out

Connects to viewing device such as monitor, DVR, TV, or modulator.



#### Varifocal Lens

Not shown - manually adjust focus, iris, and zoom (focal length 3.3mm to 8.0mm).

#### Lens Casing

Remove to access Varifocal Lens. Threaded to accept external 37mm lenses and accessories.

#### Base, Gasket & Screws

Mount to round 4" junction box.

#### Locking Ring

Secures elbow bracket to base at desired position.

#### PoC Video Decoder



#### Focus Adjustment

Sharpen image after setting zoom.

#### Zoom Adjustment

Zoom in (T) or out (W) as desired.

## FEATURES

- 3.3mm to 8.0mm zoom lens
- PoC Video Encoder built into camera
- Includes PoC Video Decoder module
- One Wire Video™ Installation
- Uses one coax cable to camera
- Excellent image quality
- Tough billet aluminum housing
- Internally routed cables
- Mounts to standard electrical fixtures
- Mounts directly to walls and ceilings
- Works in low light conditions
- Adjustable camera angles
- Tamper resistant wiring
- Includes power supply
- One year limited warranty

## SPECIFICATIONS

Camera Lens:	3.3mm to 8.0mm Varifocal
Image Sensor:	1/3" CCD
Resolution:	540 lines
Field of View:	77° to 35° Horizontal
Min Illumination:	0.1 Lux
Infrared Sensitivity:	Yes
Camera/Decoder Cable Connector:	Female F-Connector
Camera/Decoder Cable Type:	Coax: RG6 quad shield recommended
Camera/Decoder Cable Distance Range:	Up to 100'
Camera/Decoder Video Signal:	Proprietary
PoC Decoder Video Output:	Composite
PoC Decoder Video Output Connector:	Female RCA
PoC Decoder Power Input:	24V DC, 200mA
PoC Decoder Power Connector:	5.5mm OD, 2.1mm ID, center positive
PoC Decoder Size:	3.2" long, 2.2" wide, 0.9" thick
PoC Decoder Weight:	3 oz.
External Accessory Threads:	37mm x .75 pitch
Assembly Size:	2.3" dia. x 4.2" long
Mounting Holes:	3.5" centers
Assembly Weight:	1 lb.

## Day/Night Color

3.3mm to 8.0mm Varifocal
1/3" CCD
540 lines
77° to 35° Horizontal
0.1 Lux
Yes
Female F-Connector
Coax: RG6 quad shield recommended
Up to 100'
Proprietary
Composite
Female RCA
24V DC, 200mA
5.5mm OD, 2.1mm ID, center positive
3.2" long, 2.2" wide, 0.9" thick
3 oz.
37mm x .75 pitch
2.3" dia. x 4.2" long
3.5" centers
1 lb.

(subject to change without notice)

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**DO NOT CUT OR SPLICE THE CAMERA'S CABLES. MODIFYING THE UNIT IN ANY WAY WILL VOID THE WARRANTY.**

## Installation Procedures:

1. Connect a coax cable (RG6 recommended) to the F-connectors of the camera and Video Decoder. Each Camera/Decoder pair needs a dedicated point-to-point wiring circuit. **Do not connect the Camera/Decoder coax to video distribution equipment! Doing so could damage this product and/or the other attached devices!**
2. Connect a video cable from the viewing device (monitor, Quad, DVR, modulator, etc.) to the Decoder's RCA Video Out Connector. Simple adapters, such as RCA to BNC, may be used where appropriate.
3. Connect the 24V DC 200mA Power Transformer from an AC outlet to the Decoder's Power Input Connector.
4. Mount the base to the junction box (not included) and direct the camera assembly towards the intended viewing area. Remove the Lens Casing and adjust the zoom, iris, and focus of the Varifocal Lens for proper viewing. When satisfied, secure all adjustment points.

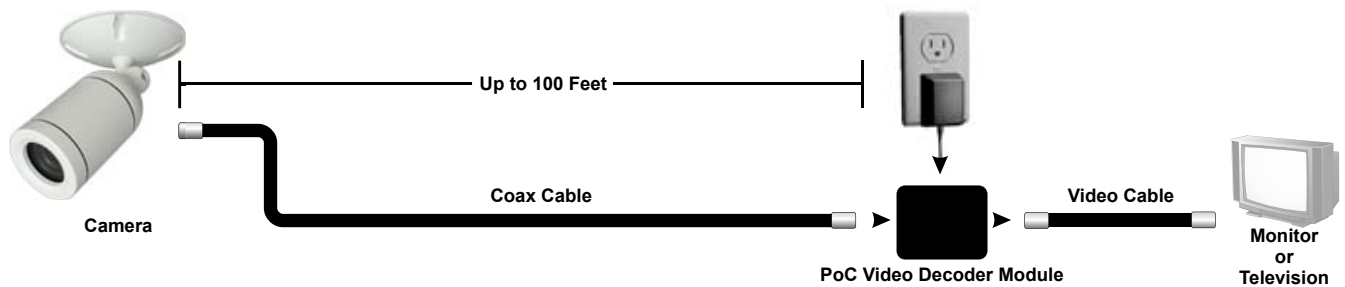


Figure 1 - Connecting the camera to a security monitor or standard television. Use the TV's composite RCA Video In jack and view through its video or line input. The picture will not be available on a channel.

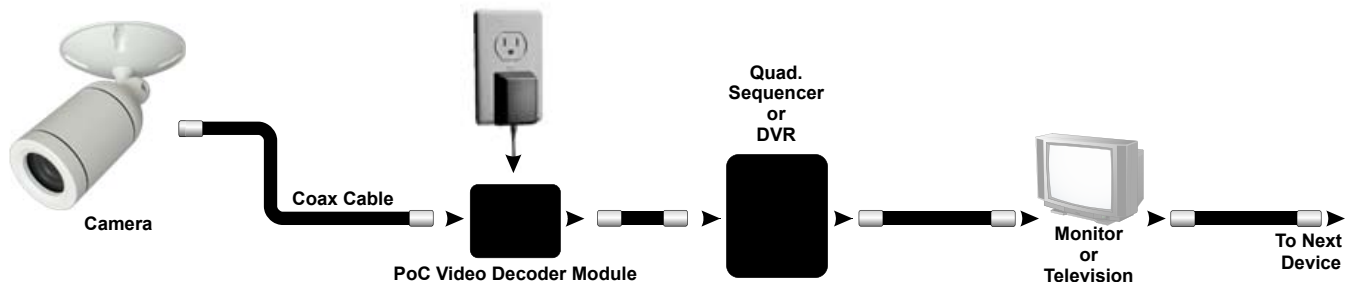


Figure 2 - Connecting the camera to multiple pieces of video equipment. Every piece except the last must have a loopback or video output jack.

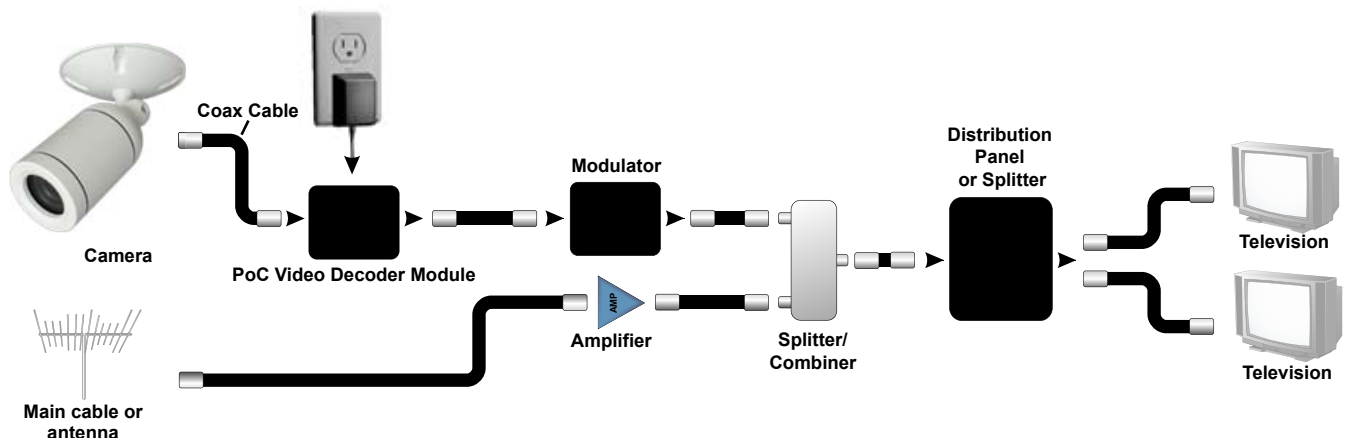


Figure 3 - Connecting the camera to a modulator for whole house distribution and standard television viewing on the modulated channel. The modulator can also be the last piece of equipment in Figure 2.

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# Power over Coax Camera

Indoor/Outdoor Weather Resistant



## FCC Information (U.S.A.):

Important: This product, when installed as specified below, 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.

### Security Cameras:

FCC compliance requires that the Camera lens cover and Video Decoder module end caps be fastened whenever the unit is in operation.

### Compliance Information Statement (Declaration of Conformity Procedure)

We,  
NetMedia, Inc.  
10956 N. Stallard Pl.  
Tucson, AZ 85737  
(520-544-4567)  
declare under our sole responsibility that the following products,

Type of Equipment: Power over Coax Security Camera

Model: NM-POVCAM-DW

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.

NOTE: 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.

## 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. 10956 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- Can I connect the camera coax to video distribution equipment?

A- **NO! Do not connect the F-Connector coax of the camera or Decoder to other video equipment! Doing so could damage this product and/or the other attached devices!** The Decoder outputs DC voltage on the coax that other equipment may not be prepared to handle. Each camera and Decoder pair needs a dedicated point-to-point circuit; nothing else can share the coax. Also, the camera itself will not work properly with RF splitters, diplexers, and amplifiers. The RCA Video Out jack of the Decoder can connect to composite video equipment such as monitors, TV's, DVR's, and modulators.

### Q- How can I see the camera on my TV without using an expensive security monitor?

A- The composite video signal from the PoC Decoder can be plugged directly into one television's RCA Video Input jack and viewed when that TV is switched to the proper input. Another option is to feed the Decoder signal into a modulator. A modulator, such as NetMedia's MM70, changes the video to a UHF or Cable channel and allows the signal to be distributed to all your TV's along with the existing antenna/cable/satellite service.

### Q- Is there some way I can get One Wire Video™ over coax with other cameras?

A- Yes, the NetMedia PoC Video Encoder and Decoder can be purchased as a set, NM-POCSET, for use with popular 12V DC cameras. The Encoder will accept the camera's composite video signal and output about 150mA of regulated 12V DC power.

### Q- Why do the light areas of the picture look washed out?

A- The camera's automatic electronic shutter (AES) must decide how to adjust itself according to the brightness of the scene. When a picture has both light and shadow, the camera adjusts itself based on the percentage of each area in the image. If it decides to favor the shadow portions then the light areas will be overexposed. In addition, cameras that are designed for low light or infrared sensitivity typically favor the shadow areas and look more washed out under bright conditions. Try adjusting the image field so that more light areas are visible. The Varifocal Lens also has a manual Iris Adjustment; try closing it in increments, as the AES compensates, until a satisfactory image is achieved. It is normal though, that as the lighting conditions change throughout the day, the camera's automatic re-adjustments will impact the picture's dark and light areas.

### Q- Why are the shadow areas too dark to see much detail?

A- This is like the washed out question above except opposite. In this case, the camera's automatic electronic shutter (AES) is favoring the light areas at the expense of the shadow areas. Try adjusting the image field so that more shadow areas are visible. The Varifocal Lens also has a manual Iris Adjustment; try opening it in increments, as the AES compensates, until a satisfactory image is achieved. It is normal though, that as the lighting conditions change throughout the day, the camera's automatic re-adjustments will impact the picture's dark and light areas. Also keep in mind that the camera still does need some kind of light in order to see. If necessary, add some lighting to the dark area to improve visibility.

### Q- Will the camera work at distances beyond 100 feet?

A- Though we do not recommend or support doing so, some people find that the camera functions satisfactorily at distances greater than 100 feet. At that range, the video quality degrades as the cable length increases but until the power gives out over the next few hundred feet, it may still be acceptable for your application.

### Q- What do the switches inside the "D" Day/Night camera adjust?

A- The Day/Night camera comes with a switch connected inside to adjust some of its performance characteristics. The switch functions are listed in Figure 5. The default settings (All OFF) are usually best but adjusting these may be helpful under certain conditions. The AGC switch will force the camera to remain in color mode instead of changing into black and white mode when the light level drops below its normal crossover threshold.



Switch 1: BLC  
Switch 2: AES  
Switch 3: AGC  
Switch 4: Unused  
Default: All OFF

Figure 4 - Day/Night Camera Switches

### Q- What is the difference between Power over Coax and modulated devices?

A- Both are similar because they enable One Wire Video™ using a single coax. They differ though in their type of video output signal. Our modulated devices, such as the RM70 (which supplies remote power for popular 12VDC cameras), output a TV channel that requires a TV tuner to view. This is handy for distributing the signal to all the TV's with the same coax, splitters, and amplifiers that transmit the local antenna, cable, or satellite signal. It is more inconvenient though, for using the signal with equipment that does not have a tuner such as a security DVR or Quad screen display. Our PoC modules and cameras output a composite video signal that is directly compatible with such equipment. Whole house distribution can still be accomplished with PoC by modulating the output of the DVR or Quad.