

# NM-POCBALL

## Power over Coax Camera Indoor Ball Camera



**B/W** | **Color** | **Day/Night Color**

This general purpose surveillance camera utilizes a built-on 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 rectangular 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, Housing Cap, Elbow Bracket, Locking Ring, Base Plate, PoC Video Encoder, F-Connector).
2. NetMedia PoC Video Decoder and 24V DC 200mA Power Transformer.
3. Mounting Screws and RCA Video Cable.

**Camera Assembly**

Available in UV Paintable White

B/W camera	Color camera	Day/Night Color	Housing
NM-POCBALL-BW	NM-POCBALL-CW	NM-POCBALL-HW	White

**PoC Video Encoder**

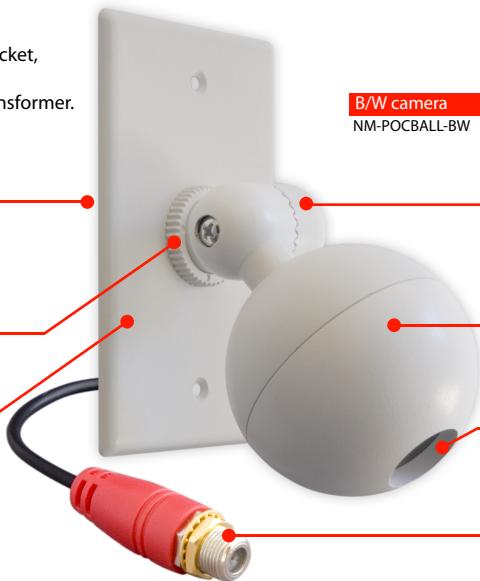
Not shown - Built onto unit, it exchanges power and video with Decoder for One Wire Video™ on coax.

**Locking Ring**

Secures elbow bracket to Base Plate at desired position.

**Base Plate**

Supports PoC Encoder and cable. Mount to rectangular junction box.



**Elbow Bracket**

Adjusts camera angle at Wall Plate, screw, and Housing.

**Housing Cap**

Remove to adjust focus.

**Camera Lens**

Factory set - rotates in either direction to adjust focus.

**F-Connector**

Transmits both power and video across a single coax.

**PoC Video Decoder (Included)**

**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.

### FEATURES

- 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
- Works in low light conditions
- Adjustable camera angles
- Tamper resistant wiring
- Includes power supply
- 1 year limited warranty

### SPECIFICATIONS

	B/W	Color	Day/Night Color
Camera Lens:	3.6mm	3.7mm	3.6mm
Image Sensor:	1/3" CCD	1/4" CCD	1/3" CCD
Resolution:	350 lines	470 lines	470 lines
Field of View:	72° Horizontal	54° Horizontal	72° Horizontal
Min Illumination:	0.7 Lux F2.0	0.5 Lux F1.2	0.3 Lux F1.2
Infrared Sensitivity:	Yes	No	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.		
Housing Size:	2.33" dia.		
Base Size:	4.5" long x 2.75" wide		
Mounting Holes:	3.25" centers		
Assembly Weight:	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 adjust the camera assembly for proper viewing. When satisfied, secure all adjustment points.

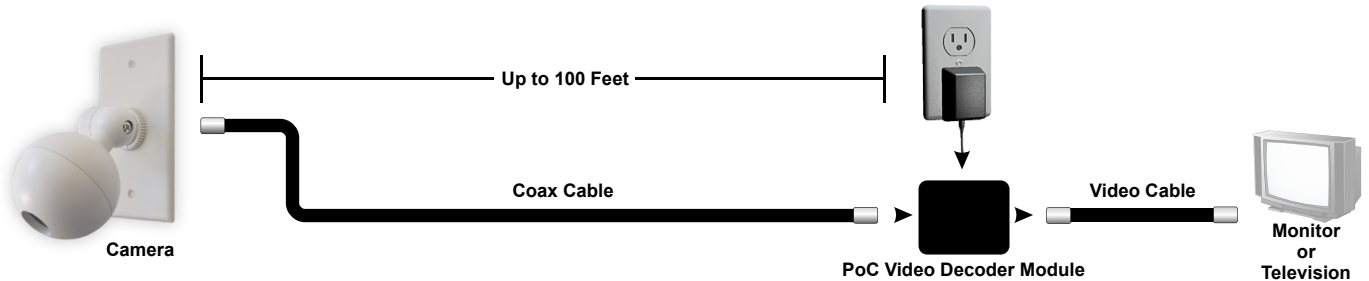


Figure 1 - Connecting the camera to a security monitor or standard television. Use the TV's composite RCA Video In jack and view through its video or line input. The picture will not be available on a channel.

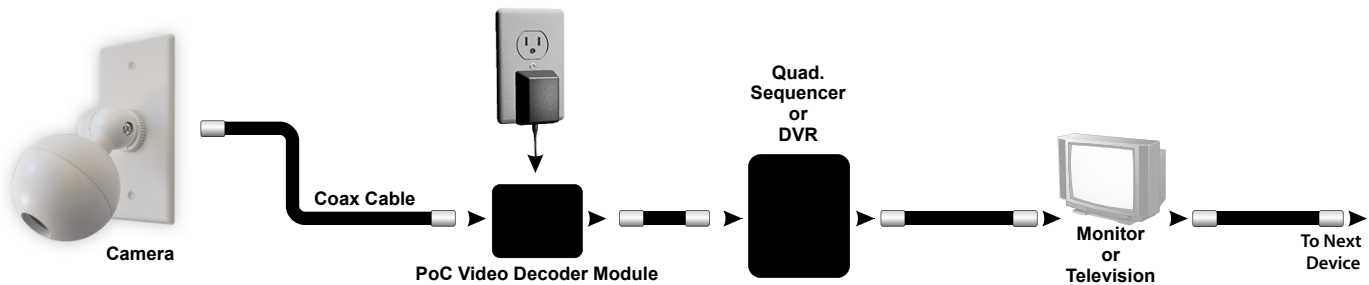


Figure 2 - Connecting the camera to multiple pieces of video equipment. Every piece except the last must have a loopback or video output jack.

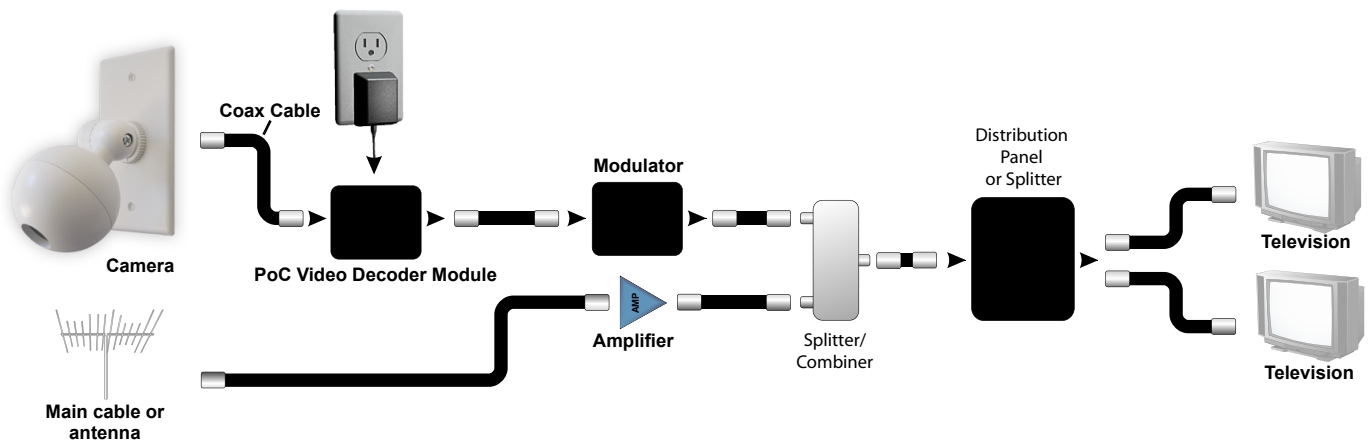


Figure 3 - Connecting the camera to a modulator for whole house distribution and standard television viewing on the modulated channel. The modulator can also be the last piece of equipment in Figure 2.





### 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.  
10940 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-POCBALL-BW    Model: NM-POCBALL-CW    Model: NM-POCBALL-HW

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. 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- 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 iris must decide how much to open for shadow areas or close for light areas. When a picture has both light and shadow, the camera adjusts the iris based on the percentage of each area in the image. If it decides to open more for 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 and see if the iris closes to improve the picture. It is normal though, that as the lighting conditions change throughout the day, so will the camera iris and the picture's dark or 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 iris is opening more for the light areas at the expense of the shadow areas. Try adjusting the image field so that more shadow areas are visible and see if the iris opens to improve the picture. Keep in mind though, 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 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.

