

### BENCH TEST

# Brickcom 360° Network Camera Has Wide Appeal

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**T**HE BRICKCOM N-Series 360° cameras are Brickcom's offerings in the panoramic view camera market. Brickcom has two models in the N-Series, the MD-300Np, which has a 3-megapixel (MP) imager and the MD-500Np that has a 5MP imager. Both models are designed to provide maximum coverage of a location/area from a single lens assembly via their wide angle lens. The cameras are designed to provide 180° viewing across two horizons (vertical & horizontal) from the camera's single lens. This multiviewing angle capability provides the user with several viewing options, which can reduce the number of cameras required to cover a wide area. I have used other cameras that only provide a 180° panoramic view via three-four camera assemblies in one housing; the camera views often don't match up well due to alignment issues with the different imagers in the assembly and can't provide varied multiviews like the Brickcom cameras can.

### Construction

I received the MD-300Np-360P-AL camera for my product review. Both of the N-Series assemblies resemble the various mini domes that are common in today's CCTV market; however, the units are about two-thirds the size of today's fixed dome cameras. Both models are 4¼-inches round, stand 2¼-inches high and have a powder-white case finish. These domes would easily be missed by the average customer walking through a store or parking structure. The N-Series domes are designed to be vandal-resistant and carry an IK10 vandal rating, highest on the EN 62262 standard. The dome cover and camera base assembly are constructed of cast metal and have a solid feel to their design. The flush mounting base for the camera leaves a little to be desired; it is constructed of molded plastic that just seems out of place with the rest of the dome's materials. I would prefer a metal base to accentuate the dome's security design.

The camera is designed to be powered via two sources. As with the majority of IP cameras today, the units can be powered via the assembly's PoE connector or there is a 12VDC power jack where external power can be supplied locally if necessary.



Brickcom MD-300Np-360P 360° Camera

Both models have an operating temperature range of -20° to +50° C (-4° to +122° F), are water resistant and carry an IP67 rating for their enclosures.

The camera assembly has a built-in micro-SD card slot that accepts cards up to 32GB. This allows the camera to store video locally and provide the video management system (VMS) with any lost video images should there be an interruption in the data stream.

The camera also has a built-in video connector that allows the installing technician to use a handheld CCTV monitor to align the camera assembly during installation. This requires a separate video adapter that isn't supplied with the camera but can be ordered if it is required. This installation feature would be nice for the installer as he/she was trying to ascertain if the proposed mounting location was feasible for the field of view that was needed.

### Features

The Brickcom N-Series cameras are designed to provide wide area coverage from a single mounting location. This allows one camera to view multiple areas or provide a digital pan/tilt/zoom (p/t/z) effect in locations where stealth operation may be necessary. Both the 3MP and the 5MP models utilize lenses from ImmerVision that are manufactured using its patented panomorph technology. This technology provides the wide area viewing capability from the camera assemblies during live viewing and subsequent playback. Both cameras are equipped with an ImmerVision Enables 1mm lens with a rated viewing angle of 182° vertical and 182° horizontal for a 360° total viewing area.

The 5MP model has the capability of providing 10 images per second (IPS) when the camera's video stream is set to the highest image level. The camera can be throttled back to reduce the video image size and increase the IPS for the stream if a higher IPS is required. At 4MP the camera can provide 15IPS, at 3MP 18IPS and at 2MP (full HD) 30IPS (or real-time) imaging. The 3MP model can provide 20IPS when set to its highest video

### Brickcom MD-300Np-360P 360° Camera

#### SPECS

- ◆ Network IP camera
- ◆ Designed for wide area/multiple angle coverage

#### PROS

- ◆ Easy to install
- ◆ Small form factor
- ◆ Provides multiple views from one camera assembly

#### CONS

- ◆ Requires proprietary software just to set the IP address

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pet peeves with CCTV manufacturers today.

In order to test this camera, I had to load another software program on my laptop just to configure the camera's IP address. Why all camera manufacturers can't ship a camera from the factory with a default IP address is beyond me. One major manufacturer (Axis) does this and it makes working with its cameras much easier.

Once I had the IP address programmed all I had to do was open my Web browser to the IP address I established and I was able to navigate the camera's graphical user interface (GUI) and play with the different views that are available for use. The interface has four views that are available in the browser: full 360° view, p/t/z, quad and perimeter. The quad option provides the operator with four distinct views that allow for multiple camera views from one unit. As shown in the photo (*left*), one camera can provide wide area coverage of a room.



The Brickcom MD-300Np-360P camera's multiviewing angle capability provides several viewing options, which can reduce the number of cameras required to cover a wide area. The unit resembles standard mini domes, except it's only about two-thirds the size of a standard fixed dome camera.

### Testing

I programmed the MD-300Np's parameters into my base VMS to test the functionality of the camera and to see how the onscreen GUI of my VMS worked compared to the Web-based GUI of the Brickcom software. The functionality of my VMS was comparable to the onscreen capabilities with the Web-based browser for the camera. My VMS allowed me to perform digital zoom and image manipulation with the video stream and I was also able to execute the same functions on the recorded video streams from the software. The overall video image from the 3MP camera was very clear when used in the panoramic and quad modes; however, I did notice some image degradation as I zoomed in on the live and recorded images. The image degradation was nothing like what I have experienced with older IP and analog cameras when attempting to perform digital zoom on my test cameras. The N-Series 3MP camera I was testing provided a wide view of the focal area with clear detail. The photo (*top left*) shows the overall field of view when the digital zoom is set to 180°; the image is bright and provides great detail for the surveillance operator.

### Conclusions

The MD-300Np-360P is a high quality network camera that provides clear images for the user. While this style of camera might not be appropriate for all locations, the use of a wide-angle camera to provide multiple and/or specialized views is expanding in today's market. This product should be categorized primarily as a specialty camera in my estimation, but devices are also becoming more mainstream as time goes by. In those locations where a single camera application with multiple look angles is appropriate the MD-300Np-360P would be excellent. SSI

stream and 30IPS for all other settings.

The N-Series cameras have a built-in microphone for recording audio when allowed and the cameras can be set to provide an alert when a pre-established audio threshold has been measured. The camera assemblies do not have the capability to provide two-way audio as do many other models available today.

The N-Series cameras have the ability to broadcast multiple video streams, which allows the VMS to record one stream at one image rate and display another video stream at a lower image rate to the surveillance operator. This can help keep network traffic down and reduce the operational load on the VMS system if the system can be programmed in this manner.

### Setup

The N-Series cameras must be initially programmed utilizing setup software from Brickcom; to perform this basic task I had to go to Brickcom's Web site and download the version of software that would allow me to configure the IP address of my test camera. On a side note, the fact that you must use proprietary software to perform basic camera programming is still one of my

### VERDICT

FEATURES	1	2	3	4	5
CONSTRUCTION	1	2	3	4	5
SETUP	1	2	3	4	5
PERFORMANCE	1	2	3	4	5
OVERALL	1	2	3	4	5

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