



NVT NV-32PS42-PVD

SPECS

- ◆ Allows analog cameras to be run over Cat-5 cable
- ◆ Provides power, video and data distribution from a single point

PROS

- ◆ Easy and intuitive to set up
- ◆ Solid construction
- ◆ Installer friendly with helpful diagnostics and detachable mains power cord

CONS

- ◆ Rear rack-mount bracket should be included

NVT NV-32PS42-PVD Brings Analog Cameras Into IP World

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The NVT StubEQ product line allows an integrator to universally run Cat-5 (or better) cable to analog cameras, providing an upgrade path for IP cameras in the future without replacing infrastructure. Hubs are available in eight-, 16- and 32-channel configurations, and each unit allows for a common interface for a number of cameras, sending out pan/tilt/zoom data and power and receiving analog video signals. They actively condition the video signal received from each camera (via a companion balun at the camera end), equalize it to compensate for line loss and some types of interference, and provide transient protection. Cameras can be run up to 1,500 feet with minimal loss in video quality; if greater distances are required, NVT has other products that are more suitable. We tested the 32-channel model, but all units are electronically identical, save for the dual analog video outputs on the eight- and 16-channel versions, and only a single power transformer in the eight-channel model.

Construction

The NV-32 is a beast. At just over 24 pounds in a 1RU chassis, care must be taken in handling it. Construction was extremely solid, with a very rigid chassis, no doubt enhanced by the 18 screws used to hold the top panel to the bottom tray. In tabletop configuration, the stick-on rubber feet can be applied, and a set of front rack-mount brackets are also provided. When rack mounting, we strongly recommend it be supported from the rear as well, and NVT has an optional rear-mount bracket available. We question

providing the front bracket without the rear for all but the lighter (13-pound) eight-channel unit. An optional wall-mounting bracket is provided too.

Opening the unit up showed solid construction, with a well thought-out layout considering the amount of components contained in this, the largest unit. The only design flaw we noted was the use of hot glue to support four pairs of capacitors to the bottom of the chassis (*see photo*). The capacitors had broken loose, secured to each other but not to the chassis. Operationally this had no impact, and it is possible the glue was there to keep them secure during shipment.

We also noted that, after removing the top cover (with those 18 screws), the screw-hole pattern was perfectly symmetrical. This meant the cover could easily be reinstalled backwards. Doing so would severely impact ventilation, as the vent holes would be reversed, placing them over the backplane and not the higher current circuitry. While there are no user-serviceable parts inside, it is not uncommon for folks to open up a product if something goes wrong, and this problem could be easily remedied by altering the screw-hole pattern providing ventilation holes on both the front and back of the top cover, or simply indicating which side is the "front" of the panel with a sticker.

A two-foot patch cable is included for each video output. We were pleasantly surprised at the quality of these cables, which included molded strain reliefs and were extremely flexible.

EDITOR'S NOTE: Welcome to the first installment of SSI's Bench Test! In the security industry, people tend to make product purchase decisions based on datasheets and relationships. While this can address the theoretical product capabilities question and provide you with a good idea as to how manufacturers will support their products (based on experience), it really doesn't speak to the merits of the products themselves. In creating the Bench Test product review section (and the expanded version available at securitysales.com), the goal is to change that.

Reviews will focus on product features, usability, construction and ease of installation, as these intangibles are often difficult for an integrator or end user to impart from a datasheet. The intent is to answer the question, "Do I want to use this product?" and explain why. You're not going to see a lot of negative reviews here, but that doesn't mean it's not objective. If a tested product does not appear to be up to its purpose or promise, it will not be included. Speaking of objectivity, as with most editorial content within SSI, these reviews are not influenced by outside parties. Products are evaluated and reviews written by R. Grossman and Associates Inc. (RG&A), an independent consulting firm specializing in electronic security projects and products whose principal, Bob Grossman, is a long-time SSI contributor. RG&A routinely evaluates products for use on projects it specifies, and this forum is an extension of that effort.

SSI's BENCH TEST

Features

The front panel of the NV-32 looks more like a network switch or PoE injector than a UTP hub, and NVT made good use of the available real estate. Each of the RJ45 connections includes two bi-color LED indicators, with the left one indicating video and the right showing power status. There's a diagnostic level to these LEDs, with indications for good video, poor video that cannot be equalized, signal present without video, or no signal (off). Similarly, the power LED can detect continuity errors as well as proper operation. There's a power-on-self-test (POST) that verifies that you don't have a burned out LED.

On the back, there are BNC outputs for video, RJ45 jacks for telemetry data inputs, a detachable power cord, power switch and a fuse holder with a spare fuse. The bottom of the unit has a main power switch (120V/240V) and a guide to the different power connector requirements for a variety of countries making this truly an international unit. We particularly like the detachable power cord. Many competing units use external power supplies, which can make installation difficult as they need to be secured to power strips and can block adjacent outlets.

Setup

Setup was very simple, and we tested the units with both NVT



The use of hot glue to secure capacitors to the bottom of the NV-32PS42-PVD's chassis kept the components secured to each other but not the chassis. Operationally this had no impact, and the glue may have been there to keep them secure during shipment.

baluns (power, video, data) and those from other manufacturers. Compatibility was not an issue; we did not see a difference in video quality between the NVT baluns and those from other makers. We connected various inputs of the NV-32 to cameras from American Dynamics (SpeedDome p/t/z) and Pelco, and the outputs to an Intellex DVR, an Axis encoder, and directly to a monitor. Tests were run over 1,000 feet of Cat-5e cable. Lighting conditions were simulated (indoor) and varying (outdoor).

Testing

The NV-32 was tested with inbound video utilizing the aforementioned setup and the lighting was turned up and down to cause the IR cut filter of the SpeedDome to repeatedly activate. The SpeedDome was also put into motion and set into patterns and presets to observe any video problems. All through the testing the video appeared acceptable, especially considering the low lighting conditions in the testing location. The video remained functional and no tearing or problems were noted, even when the only ambient light came from the test monitor.

Conclusions

The NVT NV-32 performed within its rated specifications and no problems were noted during the testing. The unit was intuitive to install and there were no functional problems noted during setup and connection. The automatic equalization worked flawlessly, despite our attempts to "trick" it with varying light levels. While there are other similar products out there, we know of none that have a better combination of features and implementation that exceed what the NV-32 has to offer. SSI

VERDICT

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SETUP 1 2 3 4 5

PERFORMANCE 1 2 3 4 5

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