



## Model NV-218A-PVD

### Video Transceiver



### Features:

- Power-Video-Data (PVD™) signals are routed via UTP and RJ45 or screwless terminal block for organized pass-through of inputs/outputs
- Mini-coax pigtail supports in-camera mounting in most dome cameras
- Use with NVT's PVD™ Power Supply Hubs and Cable Integrators
- Up to 3,000ft (1km) with a NVT DigitalEQ™ Hub or active receiver, (see Power Distance Chart)
- Up to 1,500ft (460m) with a NVT StubEQ™ Hub
- Frequency response DC to 10MHz (see Recommended Distance Chart)
- Exceptional interference rejection
- Built-in transient protection
- Limited lifetime warranty

The NVT Model NV-218A-PVD Video Transceiver with Power and Data is a passive (non-amplified) device that allows the transmission of real-time monochrome or color video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported.

This new product incorporates the transceiver engine of NVT's popular NV-214A-M video transceiver with the added value of Power and Data connections to and from the camera. Power, Video and Data are routed via UTP and RJ45 or screwless terminal block inputs/outputs. Used at the camera, the passive NV-218A-PVD has a 9" mini-coax pigtail lead for direct video output connection from the camera. Along side this coax lead are two sets of screwless terminal blocks for quick pass through connections for your camera's Power and Data. On the "house" or output side of the product you have the option of using convenient screwless UTP connectors or the more efficient RJ45.

The unparalleled interference rejection and low emissions of the NV-218A-PVD allow video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant. The NV-218A-PVD carries a limited lifetime warranty and is UL and cUL listed.

### Network Video Technologies

4005 Bohannon Drive • Menlo Park, CA 94025 • USA  
(+1) 650.462.8100 • FAX (+1) 650.326.1940  
nvt.com • www.nvt.com/email



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### Technical Specifications

#### WIRE DISTANCE (Power Distance Chart)

Supply voltage, wire resistance and minimum camera operating voltage determine the maximum camera distance. Examples assume a minimum 21VAC at the camera:

Fixed Camera 24VAC only, used with NV-216A-PV		
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	21 VAC	21 VAC
B&W Camera, 2.4 W		
2-pair 24 AWG	789ft (240m)	1,840ft (561m)
2-pair 23 AWG	994ft (303m)	2,320ft (707m)
Color Camera, 4.8 W		
2-pair 24 AWG	393ft (120m)	916ft (279m)
2-pair 23 AWG	495ft (151m)	1,155ft (352m)
Color Camera, 7.2 W		
2-pair 24 AWG	262ft (80m)	612ft (186m)
2-pair 23 AWG	331ft (101m)	771ft (235m)

Fixed Dual Voltage 24VAC/12VDC Camera with NV-216A-PV		
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	14 VAC	14 VAC
B&W Camera, 2.4 W		
2-pair 24 AWG	1,753ft (534m)	2,454ft (748m)
2-pair 23 AWG	2,210ft (674m)	3,094ft (943m)
Color Camera, 4.8 W		
2-pair 24 AWG	874ft (266m)	1,223ft (373m)
2-pair 23 AWG	1,102ft (336m)	1,542ft (470m)
Color Camera, 7.2 W		
2-pair 24 AWG	583ft (178m)	816ft (249m)
2-pair 23 AWG	735ft (224m)	1,029ft (314m)

P/T/Z 24VAC Camera used with NV-218A-PVD		
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	21 VAC	21 VAC
P/T/Z Camera, 21 W		
2-pair 24 AWG	90ft (27m)	210ft (64m)
2-pair 23 AWG	113ft (35m)	265ft (81m)

Fixed 12VDC Camera used with NV-226J-PV		
Power Supply Voltage	24 VAC	28 VAC
B&W Camera, 2.4 W		
2-pair 24 AWG	1,586ft (748m)	2,220ft (677m)
2-pair 23 AWG	1,999ft (609m)	2,799ft (853m)
Color Camera 4.8 W		
2-pair 24 AWG	795ft (242m)	1,113ft (339m)
2-pair 23 AWG	1,002ft (306m)	1,403ft (428m)

Notes: Actual distance will depend on the camera's inrush and operating current, minimum operating voltage, and the wire's environmental temperature. Please consult NVT Customer Support for further information.

Wire should be category rated Unshielded Twisted-Pair (UTP) cable. Low voltage camera power, video, and RS-422 or RS-485 telemetry may be sent within the same wire bundle. Do not run 24VAC or 28VAC in the same wire bundle with analog telecom signals. However you may share the same wire/cable tray.

An online wire Power Distance Calculator is available at [www.nvt.com](http://www.nvt.com) under Product Support.

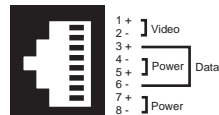
#### VIDEO

Frequency response	DC to 10 MHz
Attenuation	0.5 dB typ
Common-mode / Differential-mode rejection	
50 KHz to 10 MHz	60 dB typ

#### Impedance

Coax, male BNC	75 ohms
UTP, Screwless terminal block	100 ohms
UTP RJ45 Data Connector	100 ohms

#### RJ45 PINOUTS



#### WIRE TYPE

Network Wiring	One Unshielded Twisted Pair
	Terminal Block 24-16 AWG (0.5-1.31mm)
	RJ45 24-22 AWG (0.5-0.64mm)
Category Type	2 or better
Impedance	100 ± 20 ohms
DC Loop Resistance	52 ohms per 1,000ft (18 ohms per 100m)
Differential Capacitance	19 pF/ft max (62 pF/m max)

#### ENVIRONMENTAL

Temperature	-22 to +167°F (-30 to +75 °C)
Humidity (non-condensing)	0 to 95%
Transient Immunity	per ANSI / IEEE 587 C62.41

#### MECHANICAL

Body Length	1.50in (38mm)
Body Depth	0.85in (22mm)
Body Height	1.54in (39mm)
Pigtail Length	9in (228mm)
Product Weight	2.0oz (60g)
Packaged Weight	0.18lb (82g)

#### REGULATORY



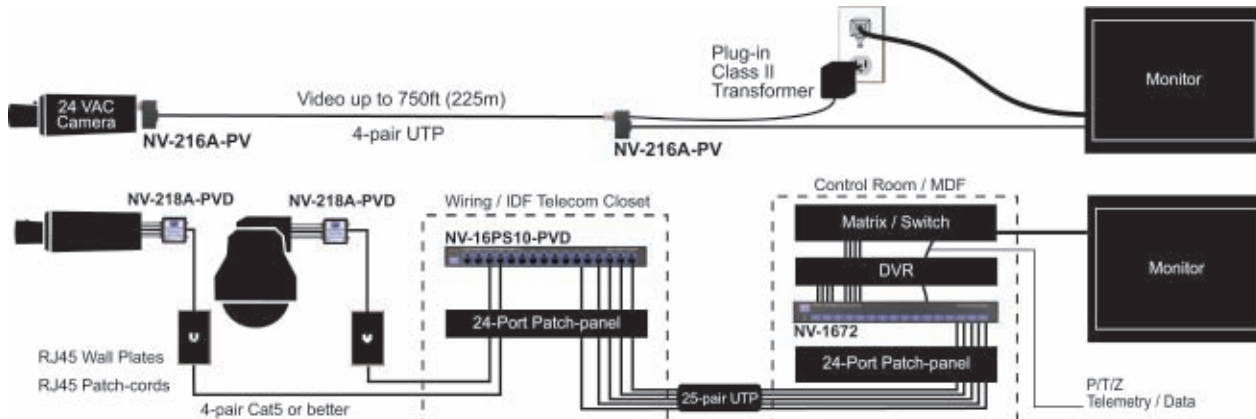
Specifications subject to change without notice.



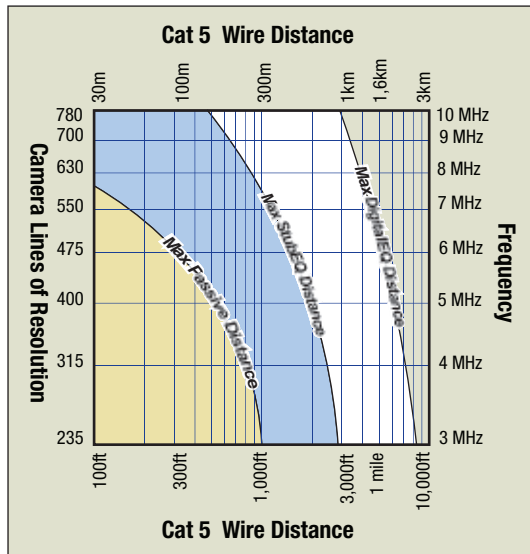
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### Typical Application



### Distance Recommendations



#### Good

##### Passive Transceivers & Hubs

- UTP transmission 0-750ft (225m)
- No power required
- Built in transient protection
- Lifetime warranty

#### Best

##### DigitalEQ Hubs

- UTP Transmission 0-3,000ft (1 Km)
- Fully automatic 4-band equalization
- Automatic polarity reversal
- 2 or 4 BNC outputs per channel (16- & 8-port models)
- Built-in "at-a-glance" diagnostics
- Built-in ground lifting
- Built-in transient protection
- 2ft (60cm) coax cables included
- Lifetime warranty

#### Better

##### StubEQ Hubs

- UTP Transmission 0-1,500ft (460m)
- Fully automatic 2-band equalization
- Built-in ground lifting
- Built-in transient protection
- Compact rack mount design
- Lifetime warranty

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