



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

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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:

P/T/Z 24VAC Camera		NV-218A-PVD	
Power Supply Voltage	24 VAC	28 VAC	
Minimum Voltage at Camera	21 VAC	21 VAC	
P/T/Z Camera 1,000 mA, 21 W			
2-pair 24 AWG	90ft (27m)	210ft (64m)	
2-pair 23 AWG	113ft (35m)	265ft (81m)	

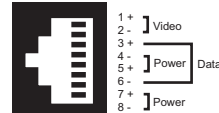
Fixed 12VDC Camera		NV-218A-PVD	
Power Supply Voltage	12 VDC	12 VDC	
Minimum Voltage at Camera	11.5 VDC	11.5 VDC	
B&W Camera 200 mA, 2.4 W			
2-pair 24 AWG		23m (75ft)	
2-pair 23 AWG (Cat6)		29m (94ft)	
Color Camera 400 mA, 4.8 W			
2-pair 24 AWG		11m (37ft)	
2-pair 23 AWG (Cat6)		14m (47ft)	
Color Camera 600 mA, 7.2 W			
2-pair 24 AWG		8m (25ft)	
2-pair 23 AWG (Cat6)		10m (31ft)	

Notes: Wire should be Cat5 or better/ low voltage camera power, video and RS-422 or RS-485 data may reside within the same wire bundle, however do not run 24 or 28VAC within the same wire bundle as other telecom or datacom signals.

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

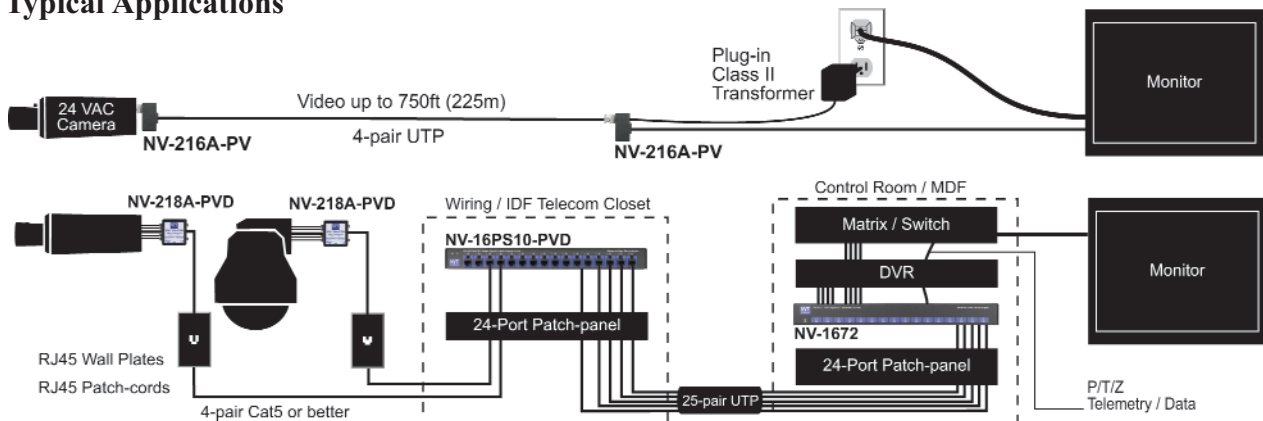
Body Length	1.50in (38mm)
Body Depth	0.85in (22mm)
Body Height	1.54in (39mm)
Pigtail Length	9in (228mm)
Weight	2.0oz (60g)

REGULATORY



Specifications subject to change without notice.

Typical Applications



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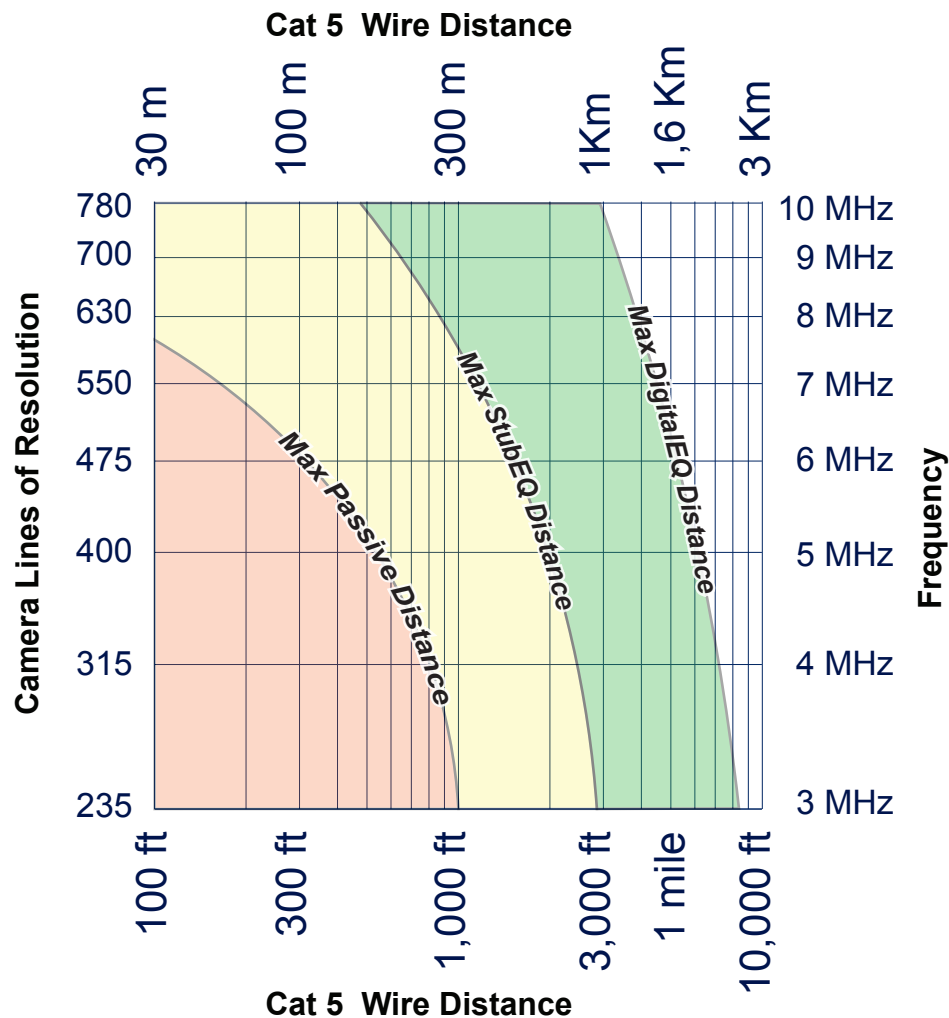
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Network Video Technologies

Security Industry Leader

Distance Recommendations



Good

Passive Transceivers & Hubs

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

Better

StubEQ Hubs

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

Best

DigitalEQ Hubs

- UTP Transmission 0-3,000 ft (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
- 2 ft (60 cm) coax cables included
- Lifetime warranty