



Quality video over ordinary telephone wire...®

Model NV-213A & NV-213A-M Video Transceiver



Features:



- ▶ Full-motion monochrome or color video at distances up to 1,000ft (300m) when used with a NV-213A(-M), NV-413A, NV-813A, NV-1613A or NV-3213A**
- ▶ Up to 3,000ft (1 km) with active receivers
- ▶ Supports "up-the-coax" type control signal up to 1,000ft (300m)
- ▶ No power required
- ▶ Exceptional interference rejection
- ▶ Built-in transient protection
- ▶ Male BNC on the NV-213A-M allows connection directly to the camera
- ▶ Compatible with qualified UTP cameras
- ▶ Up to 10 NV-213As may be rack mounted using the NV-RM8/10 Rack Panel Kit
- ▶ Limited lifetime warranty

** For Digital Recording applications, it is recommended that Passive to Passive transmission (Example: NV-213A to NV-213A) distances be limited to no more than 750 ft. For distances greater than 750 ft. please use an NVT Active Receiver product.

The NVT Model NV-213A and NV-213A-M Video Transceivers are passive (non-amplified) devices that allow the transmission of real-time monochrome or color video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported.

Up-the-coax type signal may be sent over the same wire pair. Used as a receiver, the NV-213A is fully compatible with qualified cameras that are equipped with an NVT twisted-pair output.

The unparalleled interference rejection and low emissions of the Model NV-213A(-M) 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. With built-in transient protection, damaging voltage spike problems are eliminated.

Network Video Technologies
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Technical Specifications

Video

Frequency response	DC to 5 MHz
Attenuation	0.5 dB typ
Common-mode / Differential-mode rejection	
15 KHz to 5 MHz	60 dB typ
Impedance	
Coax, female or male BNC	75 ohms
UTP, Terminal Block	100 ohms

Power

No external power required

Environmental

Temperature	-20 to +75 C
Humidity (non-condensing)	0 to 95%
Transient Immunity	6,000 V 1.2µs x 50µs
per ANSI / IEEE 587 C62.41 B3	3,000 A 8µs x 20µs
when ground screw terminal is bonded to earth-ground	

Wire Type

Network Wiring	One Unshielded Twisted Pair
	24-16 AWG (0,5-1,31mm)
Category Type	2 or better
Impedance	100 ± 20 ohms
DC Loop Resistance (24AWG)	52 ohms per 1,000 ft
	(18 ohms per 100 m)
Differential Capacitance	19 pF/ft max
	(62 pF/m max)
Wire Length	See chart below

Mechanical

Dimensions, excluding connectors	3.00 x 1.54 x 1.10in (76 x 39 x 28mm)
Weight	4.0 oz (100 g)
Material	Black ABS
Mounting	Two 0.175 in (4,4mm) diameter holes
	2.5in (63,5mm) apart
<i>Up to ten NV-213As can be mounted to an NV-RM 8/10 Rackmount Panel</i>	

Product Selection Chart

Specifications subject to change without notice.

Distance	Transmitter Model	Ext. Power Required	Receiver Model	Ext. Power Required	Ground Lifting	Transient Protection	P/T/Z Control
0 to 500ft (0 to 150m)	NV-212A Video TransceiverNo or Qualified OEM Camera†.....Yes	No	NV-212A Video Transceiver.....No	No	No	No, not for inter-building use	Yes
0 to 750ft (0 to 225m)	NV-212A Video TransceiverNo	No	NV-413A 4-Port Passive TransceiverNo or NV-813A 8-Port Passive HubNo or NV-1613A 16-Port Passive HubNo or NV-3213A 32-Port Passive HubNo	No	No	No, not for inter-building use	Yes
0 to 1,000ft** (0 to 300m)	NV-213A Video TransceiverNo or NV-213A-M Video Transceiver.....No or NV-413A 4-Port TransceiverNo or NV-813A 8-Port Passive HubNo or NV-1613A 16-Port Passive Hub.....No or NV-3213A 32-Port Passive Hub.....No or Qualified OEM Camera†	No	NV-213A Video Transceiver.....No or NV-413A 4-Port Passive Transceiver.....No or NV-813A 8-Port Passive HubNo or NV-1613A 16-Port Passive HubNo or NV-3213A 32-Port Passive HubNo	No	No	Built-in	Yes
0 to 3,000ft* (0 to 1km)	NV-213A Video Transceiver.....No or NV-213A-M Video Transceiver.....No or NV-413A 4-Port Transceiver.....No or NV-813A 8-Port Passive Hub.....No or NV-1613A 16-Port Passive Hub.....No or NV-3213A 32-Port Passive Hub.....No or Qualified OEM Camera†	No	NV-452R 4-Port Active Receiver.....24V AC/DC or NV-652R Video Active Receiver12-24V AC/DC or NV-862R 8-Port Active Rcvr. Hub115/230 VAC or NV-1662R 16-Port Active Rcvr. Hub ..115/230 VAC or NV-3262R 32-Port Active Rcvr. Hub ..115/230 VAC	Yes	Yes	Built-in	No, Use RS-422 or RS-485
Cat. 2 or 3* 0 to 1 mile 0 to 5,280ft (0 to 1,6km) or NTSC Cat. 5* 0 to 1.5 miles 0 to 8,000ft (0 to 2,4km)	NV-653T Video Transmitter...24V AC/DC		NV-452R 4-Port Active Receiver.....24V AC/DC or NV-652R Video Receiver.....12-24V AC/DC or NV-862R 8-Port Active Rcvr. Hub.....115/230 VAC or NV-1662R 16-Port Active Rcvr. Hub ..115/230 VAC or NV-3262R 32-Port Active Rcvr. Hub ..115/230 VAC		Yes	Built-in	No, Use RS-422 or RS-485

* Video signals traveling in opposite directions may co-exist in the same wire bundle up to 1,000ft (300m) or 2,000ft (600m) if Cat-5 wire is used

** For Digital Recording applications, it is recommended that Passive to Passive transmission (Example: NV-213A to NV-213A) distances be limited 0 to no more than 750 ft. For distances greater than 750 ft. please use an NVT Active Receiver product.

† The following companies have products which have an integrated NVT UTP/CCTV output module: Ademco Video, CBC, Extreme CCTV, Kalatel, Silent Witness, Ultrak, Vicon, Videolarm. These cameras, therefore, have what is equivalent to the NV-213A built into the camera. When used with NVT active receiver models, 0 transmission distances up to 3,000ft or (1km) are possible.

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