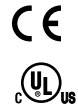


Quality video over ordinary telephone wire...®

Model NV-413A 4-Channel Video Transceiver



Features:

- ▶ **Four passive transceiver channels in one product**
- ▶ **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**
- ▶ **Compatible with qualified UTP cameras**
- ▶ **Two NV-413As may be rack mounted using the NV-RM8/10 Rack Panel Kit**
- ▶ **Limited lifetime warranty**

The NVT Model NV-413A 4-Channel Video Transceiver 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.

Up-the-coax type signal may be sent over the same wire pair. Used as a receiver, the NV-413A 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-413A 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
1755 E. Bayshore Road, Suite 8B • Redwood City, CA • 94063 • USA
(+1) 650.562.0600 • 800.959.9870 • FAX (+1) 650.365.9575
email:info@nvt.com • www.nvt.com



Quality video over ordinary telephone wire...®

Model NV-413A 4-Channel Video Transceiver

Technical Specifications

Video

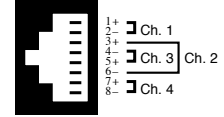
Frequency response	DC to 5 MHz
Attenuation	0.5 dB typ
Common-mode / Differential-mode rejection 15 KHz to 5 MHz	60 dB typ
Impedance	
Coax, female BNC	75 ohms
UTP, Screw Terminal Block or RJ-45	100 ohms

Wire Type

Network Wiring	One Unshielded Twisted Pair (for each video signal) 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

Connectors

Use either terminal block or RJ-45 (not both)



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

Mechanical

Dimensions, excluding connectors	7.3 x 2.35 x 1.65in (184 x 60 x 41mm)
Weight	12.0 oz (340 g)
Material	Black ABS
Mounting	Two 0.175 in (4,4mm) diameter holes 6.75in (171.5mm) apart

Two NV-413As can be mounted
to an NV-RM 8/10 Rackmount Panel

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 TransceiverNo 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	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	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	No	NV-452R 4-Port Active Receiver.....24V AC/DC or NV-652R Video Receiver12-24V 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 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, transmission distances up to 3,000ft or (1km) are possible.

Network Video Technologies

1755 E. Bayshore Road, Suite 8B • Redwood City, CA • 94063 • USA
(+1) 650.562.0600 • 800.959.9870 • FAX (+1) 650.365.9575
email:info@nvt.com • www.nvt.com

Copyright © 2002 NVT, Inc.

411-763-1-A