

# NV-653T/NV-652R Video Transceivers

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Invented for life



- ▶ Full-motion monochrome or color video
- ▶ Transmit up to 1 km (3000 ft) with NV-213A or NV-213A-M transceivers and UTP cable
- ▶ Transmit up to 2.4 km (8000 ft) in combination with an active component and UTP CAT 5 cable (NTSC only). UTP CAT 52 and CAT 3 cable allow distances up to 1.6 km (5280 ft)
- ▶ Exceptional interference rejection
- ▶ Built-in transient protection and ground rejection

The NV-652R video receiver and NV-653T video transmitter are active (amplified) devices that allow the transmission of real-time monochrome or color video up to 1 km (3000 ft) when used with NV-213A and NV-213A-M transceivers.

## Functions

Distances up to 2.4 km (8000 ft) are possible with UTP CAT 5 cable (NTSC only). UTP CAT 2 and CAT 3 cables allow distances up to 1.6 km (5280 ft). The exceptional interference rejection and low emissions allow long run video signals to coexist in the same wire bundles as telephone, data communications, or low-voltage power circuits. Ground lifting assures no "hum-bars" when ground potential differences exist. Damaging voltage spike problems are eliminated by the built-in transient protection.

## Technical Specifications

### Power

Input Voltage (transformer not included)	12–24 VAC/VDC
Current Draw (max.)	100 mA

Video	
Frequency Response	DC to 5 MHz
Common-mode/ Differential-mode Rejection (15 kHz to 5 MHz)	60 dB (typical)
Impedance (UTP, Terminal Block)	100 Ohm
Wiring	
Network Wiring	One (1) unshielded twisted-pair, 24 AWG to 16 AWG (0.5 mm to 1.3 mm) or thicker
Category Type	2 or better
Impedance	100 ± 20 Ohm
DC Loop Resistance	18 Ohm per 100 m (52 Ohm per 1000 ft)
Differential Capacitance (max.)	62 pF/m (19 pF/ft)

Wire Length (max.) (with UTP CAT 5 Cable and Active Components NV-653T, NV-652R, or NV-1662R)	2.4 km (8000 ft), NTSC only
Wire Length (max.) (with UTP CAT 2 or CAT 3 Cable and Active Components NV-653T, NV-652R, or NV-1662R)	1.6 km (5280 ft)

### Mechanical

Material	Black ABS
Weight	100 g (4.0 oz.)
Dimensions (excluding connectors) (H x W x D)	28 x 76 x 39 mm (1.1 x 3.0 x 1.5 in.)
Mounting	Two (2), 4.4 mm (0.175 in.) diameter hole 63.5 mm (2.5 in.) apart

### Environmental

Transient Immunity	6000 V; 1.2 $\mu$ S x 50 $\mu$ S
Per ANSI C62.41 B3/IEEE 587	3000 V; 8 $\mu$ S x 20 $\mu$ S
Temperature	0°C to 50°C (32°F to 122°F)

### Ordering Information

#### NV-653T Transmitter

UTP-NVT 1 channel, active, for max. 2.4 km (8000 ft) using CAT 5 cable in comb. with active receiver  
Order number **NV-653T**

#### NV-652R Receiver

UTP-NVT 1 channel, active, transmission for max. 1 km (3000ft) with NV-213A-M, up to 2.4km (8000ft) with CAT 5 cable with NV-652T  
Order number **NV-652R**

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