



Vicon's line of twisted pair video transmission systems consist of receiver/transmitter pairs that offer video signal transmission capability over a simple twisted-pair wire for distances up to 3000 ft (915 m). The V212-NVT and V213-NVT are also capable of transmitting Vicoax data. The V652R-NVT has built-in ground loop isolation. Each device provides a standard BNC connector for video device input or output and a set of terminal block screws for unit input or output. The active unit types require 12 to 24 VAC or VDC and draw very little current (about 50 mA). Refer to Table 1 for specific unit descriptions.

**V212-NVT / V213-NVT / V652R-NVT
Twisted-Pair Transceivers**

- Compact and lightweight units
- Choice of passive (no power required) or active (power required) types
- Utilizes existing twisted-pair wires for video signal transmission
- Surface mount ready for easy installation

Notes: SUPERSEDES PRODUCT SPECIFICATION 982-1200

Model Number	Product Code	Package	Type	Transmission Distance (max) ft (m)
V212-NVT	7631	Surface Mount	Passive	500 (152)
V213-NVT	6518	Surface Mount	Passive with ground screw	1000 (304)
V652R-NVT	7453	Surface Mount	Active with ground screw	3000 (915)

Table 1: Model Versions

**TECHNICAL SPECIFICATIONS
DIVISION 13 - SPECIAL CONSTRUCTION
SECTION 137__ - SECURITY CCTV SYSTEM**

SECURITY SYSTEM

PART 2 - PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components, regularly manufactured, regularly utilized in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll free 24-hour technical support phone number from the manufacturer. The phone number shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge.
- D. All systems and components shall be provided with an explicit manufacturer warranty.

2.02 TWISTED-PAIR VIDEO TRANSMISSION SYSTEMS

- A. The 500-foot (152 meter) distance transceiver pair shall be used to transmit and receive baseband video signals over a standard twisted-pair wire set. The ports connected to external video devices shall be a BNC female type with a nominal impedance of 100 ohms (designed to be used with standard 75 ohm coaxial cable). The ports connecting the transceiver pair shall be screw terminals with a nominal impedance of 52 ohms per 1000 feet with 24 AWG wire. The supported baseband video formats shall be NTSC, PAL, EIA, CCIR, RGB and S-video types (RGB and S-video require separate paths for each component signal). The transmission distance shall be 500 feet (152 meters) and it shall be used indoors only within the operating temperature range of 32 to 167° F (0 to 75° C) at up to 95% relative, noncondensing humidity. The outline dimensions of both shall be no greater than 3.0 inches (76 mm) in length by 1.5 inches (39 mm) in width, 1.1 inches (28 mm) in height and 0.2 lb (0.09 kg) in weight. They shall be constructed of ABS plastic and use stainless steel hardware. They shall be surface mounted using two mounting holes. The 500-foot (152 meter) distance transceiver pair shall be Vicon's V212-NVT model.
- B. The 1000-foot (304 meter) distance transceiver pair shall be used to transmit and receive baseband video signals over a standard twisted-pair wire set. The ports connected to external video devices shall be a BNC female type with a nominal impedance of 100 ohms (designed to be used with standard 75 ohm coaxial cable). The ports connecting the transceiver pair shall be screw terminals with a nominal impedance of 52 ohms per 1000 feet with 24 AWG wire. Each unit shall have a grounding screw terminal. The supported baseband video formats shall be NTSC, PAL, EIA, CCIR, RGB and S-video types (RGB and S-video require separate paths for each component signal). The transmission distance shall be 1000 feet (304 meters) and it shall be used indoors only within the operating temperature range of 32 to 167° F (0 to 75° C) at up to 95% relative, noncondensing humidity. The outline dimensions of both shall be no greater than 3.0 inches (76 mm) in length by 1.5 inches (39 mm) in width, 1.1 inches (28 mm) in height and 0.2 lb (0.09 kg) in weight. They shall be constructed of ABS plastic and use stainless steel hardware. They shall be surface mounted using two mounting holes. The 1000-foot (304 meter) distance transceiver pair shall be Vicon's V213-NVT model.
- C. The 3000-foot (915 meter) distance transceiver pair shall be used to transmit and receive baseband video signals over a standard twisted-pair wire set. The ports connected to external video devices shall be a BNC female type with a nominal impedance of 100 ohms (designed to be used with standard 75 ohm coaxial cable). The ports connecting the transceiver pair shall be screw terminals with a nominal impedance of 52 ohms per 1000 feet with 24 AWG wire. Each unit shall have a grounding screw terminal. The receiver shall be powered with 12-24 VAC/VDC, draw approximately 50 mA and dissipate approximately 0.6-1.2 watts. The supported baseband video formats shall be NTSC, PAL, EIA, CCIR, RGB and S-video types (RGB and S-video require separate paths for each component signal). The transmission distance shall be 3000 feet (915 meters) and it shall be used indoors only within the operating temperature range of 32 to 167° F (0 to 75° C) at up to 95% relative, noncondensing humidity. The outline dimensions of both shall be no greater than 3.0 inches (76 mm) in length by 1.5 inches (39 mm) in width, 1.1 inches (28 mm) in height and 0.2 lb (0.09 kg) in weight. They shall be constructed of ABS plastic and use stainless steel hardware. They shall be surface mounted using two mounting holes. The 3000-foot (915 meter) distance transceiver pair shall be Vicon's V652R-NVT model.

Technical Information

ELECTRICAL

V652R-NVT Only

Input Voltage: 12 - 24 VAC or VDC, receiver only.

Current Drain: 50 mA typical.

Power Consumption: 0.6 to 1.2 W.

Heat Equivalent: 0.03 to 0.07 btu/min (0.009 to 0.02 kg-cal/min).
Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of the heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.

LED Indicators: Blue indicates power is applied. Green indicates video signal is present.

VIDEO

Video Impedance (BNC Connector): 100 ±15% ohms (designed to be used with standard 75 ohm coaxial cable).

Video Impedance (Screw Terminals): 52 ohms nominal per 1000 ft with 24 AWG wire.

Maximum Video Transmission Distances (Screw Terminals):
V212-NVT: 500 ft (152 m).
V213-NVT: 1000 ft (304 m) .
V652R-NVT: 3000 ft (915 m).

CONNECTORS

Connector Types: Video: BNC-F.
Power (V3000-NVT): screw terminal block
Ground (V1000-NVT/V3000-NVT): screw.

MECHANICAL

Application: Indoor.

Mounting: Surface mount, two 0.175 in (4 mm) diameter holes about 2.5 in (64 mm) apart.

Dimensions (Excluding BNC): Height (H): 1.1 in. (28 mm).
Width(W): 1.5 in. (39 mm).
Length (L): 3.0 in. (76 mm).

Weight: 0.2 lb (0.09 kg).

Construction: ABS plastic body, steel hardware.

Finish: Black.

Shipping Dimensions:* Height: 2.8 in. (71 mm).
Width: 3.5 in. (89 mm).
Length: 5.5 in. (140 mm).

Shipping Weight: 0.6 lb. (0.3 kg).

Shipping Volume: 0.03 ft³ (0.0008 m³).
*Note: Units are shipped in pairs.

ENVIRONMENTAL

Operating Temperature: 32 to 167° F (0 to 75° C).

Operating Humidity Range: Up to 95% relative, noncondensing.

Storage Temperature Range: -40 to 150° F (-40 to 65° C).

Storage Humidity Range: Up to 95% relative, noncondensing.

Transient Immunity: V212-NVT: 20 KV at 200 pf capacitance.
V213-NVT and V652R-NVT: 6 KV, 1.2E10-6 sec, x 50E10-6 sec, 3000A 8E10-6 sec x 20E10-6 sec per ANSI/IEEE 587 C62.41 B3.

