
TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION 16 - ELECTRICAL

SECTION 16770 - CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

PART 2 – PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and 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 (U.S. and Canada) technical support number from the manufacturer. The number shall provide technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.

2.02 UNSHIELDED TWISTED-PAIR VIDEO TRANSCEIVER, 4-CHANNEL PASSIVE, 750 FT (225 m)

- A. The Unshielded Twisted-Pair Video Transceiver device shall be capable of transmitting or receiving up to four baseband monochrome or color video signals over unshielded twisted-pair (UTP) telephone wire up to a distance of 750 feet (225 m) without requiring power at either end.
- B. The transmitting device shall accept four baseband video signals, each from a 75-ohm source.
- C. The receiving device shall deliver four baseband video signals, each capable of driving a 75-ohm load.
- D. "Up the Coax" Pan/Tilt/Zoom controls shall be supported up to 750 feet (225 m) when using passive transceivers to both transmit and receive the signal.
- E. The transceiver shall have built-in transient protection, with earth-ground screw connection.
- F. Distances up to 3,000 feet (1,000 m) shall be supported when used in conjunction with a NVT DigitalEQ™ Hub or amplified (active) receiver. Distances up to 1,500 feet (460m) shall be supported by any NVT StubEQ™ Hub.
- G. The transceiver shall be equipped with a screw terminal block and an RJ-45 jack for input connection to UTP wire.
- H. The transceiver shall be equipped with female BNC for 75-ohm output connections.
- I. The transceiver shall have the ability to operate in the same wire bundle as telephone, data, low voltage power, or other video signals.
- J. The transceiver shall meet or exceed the following design and performance specifications:
 - a. Have typical common-mode rejection of 60 dB between the frequencies of 15 KHz to 5 MHz.
 - b. The transceiver shall have a frequency response from DC to 5 MHz.
 - c. The transceiver shall have a typical attenuation of 0.5 dB or better.

UNSHIELDED TWISTED-PAIR VIDEO TRANSCEIVER, 4-CHANNEL PASSIVE
(RJ45 AND SCREW TERMINAL INPUT)- Page 2

- d. The transceiver shall provide transient immunity of 6,000V 1.2uS x 50 uS and 3,000A 8uS x 20 uS when ground screw terminal is bonded to earth ground per ANSI/IEEE 587C62.41 B3.
 - e. The transceiver shall be for indoor use or for use in an environmental enclosure and allow a maximum operating temperature range of -20 to 75 degrees Celsius.
- K. The transceiver shall be capable of utilizing 24-16 AWG (solid or stranded) UTP wire.
- L. The transceiver shall be capable of utilizing Category 2 or better UTP without compromising interference immunity or transmission distances.
- M. The transceiver shall have a weight of 0.75 lbs (0,34 kg).
- N. The transceiver shall have two 0.175 in. (4,4 mm) diameter holes spaced 6.75 in. (171,5 mm) apart for the purpose of surface or rack mounting.
- O. The transceiver shall be UL and CUL listed.
- P. The transceiver shall be CE compliant.
- Q. The transceiver shall be provided with a limited lifetime warranty.
- R. The Unshielded Twisted-Pair Video Transceiver, 4-Channel Passive, 750 ft (225 m) shall be the NVT:
 - a. NV-413A or
 - b. Approved equal