
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, PASSIVE

- A. The UTP CCTV Video Transceiver device shall be capable of transmitting and receiving baseband monochrome or color video signals over unshielded twisted-pair (UTP) data wire to a passive transceiver up to a distance of 750 feet (225m) without requiring power at either end.
- B. Distances up to 1,500 feet (460m) shall be supported by any NVT StubEQ™ Hub. Distances up to 3,000 feet (1,000m) shall be supported when used in conjunction with a DigitalEQ™ Hub or amplified NVT (active) receiver.
- C. The transmitting device shall accept a baseband video signal from a 75-ohm source.
- D. The receiving device shall deliver a baseband video signal capable of driving a 75-ohm load.
- E. "Up the Coax" Pan/Tilt/Zoom controls shall be supported up to 750 feet (225 m) when using this transceiver to transmit the signal to a passive receiver.
- F. The transceiver shall have built-in transient protection without the need for a ground connection.
- G. The transceiver shall be capable of utilizing 24-22 AWG (stranded or solid) UTP wire with the following EIQ/TIA 568B compliant pinouts:
 - Pin 1 Video +
 - Pin 2 Video –
 - Pin 3
 - Pin 4
 - Pin 5
 - Pin 6
 - Pin 7
 - Pin 8
- H. The transceiver shall be equipped with a standard 8-pin RJ45 modular jack for connection to UTP wire.

- I. The RJ45 terminal shall be composed of such material as to prevent corrosion of UTP connection.
- J. The transceiver shall support signals operating in the same wire bundle as telephone, data, low voltage or other video signals, without interference.
- K. 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 10 MHz.
 - b. The transceiver shall have a frequency response from DC to 10 MHz.
 - c. The transceiver shall have a typical attenuation of 0.5 dB or better.
 - d. The transceiver shall provide transient immunity per ANSI/IEEE 587C62.41.
 - e. The transceiver shall be for indoor use or for use in an environmental enclosure and allow a maximum operating temperature range of -30 to 75 degrees Celsius.
- 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 2.0oz (60g). Packaged weight of 0.14lb (63g)
- N. The transceiver shall have a body length of 1.8in (45mm), with a height of 1.0in (26mm) and width of 1.65in (42mm) or less.
- O. The transceiver shall be UL and cUL listed.
- P. The transceiver shall be CE compliant.
- Q. The transceiver shall be RoHs compliant.
- R. The transceiver shall be provided with a limited lifetime warranty.
- S. The UTP video transceiver, passive, shall be the NVT:
 - a. NV-215J-M or
 - b. Approved equal