
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 POWER-VIDEO-DATA TRANSCEIVER, PASSIVE

- A. The power-video-data (PVD) transceiver device shall be capable of transmitting and receiving baseband monochrome or color video signals over unshielded twisted-pair (UTP) telephone wire to a passive transceiver up to a distance of 750 feet (225 m).
- B. Distances up to 3,000 feet (1,000 m) shall be supported when used in conjunction with an amplified (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 video transient protection without the need for a ground connection.
- G. The transceiver shall be equipped with an inline male BNC for 75-ohm camera connection. There shall be a 9in (228mm) mini-coax cable between the BNC and the transceiver body.
- H. The transceiver shall route power, video, and data signals via UTP and RJ45 or screw-less terminal block for organized pass-through of power and data.
- I. The transceiver is to be used with Power-Video-Data Cable Integrator for organized cable management between control equipment and the wiring closet or IDF or with another power-video-data transceiver device.
- 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.
 - d. The transceiver shall provide transient immunity of per ANSI/IEEE 587C62.41.

UNSHIELDED TWISTED-PAIR POWER-VIDEO-DATA TRANSCEIVER, PASSIVE
(RJ45 OR SCREWLESS TERMINAL BLOCK INPUT) - Page 2

- 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 with the following pinouts:
 - Pin 1: Video +
 - Pin 2: Video –
 - Pin 3: Data +
 - Pin 4: Power –
 - Pin 5: Power +
 - Pin 6: Data –
 - Pin 7: Power +
 - Pin 8: Power –
- 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).
- N. The transceiver shall have a body depth of 0.85in (22mm), body length of 1.50in (38mm) and a body height of 1.54in (39mm).
- 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 Power-Video-Data Transceiver, Passive, shall be the NVT:
 - a. NV-218A-PVD or
 - b. Approved equal