
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 32-PORT VIDEO TRANSCEIVER HUB, PASSIVE

- A. The Unshielded Twisted-Pair 32-Port Video Transceiver Hub device shall be capable of transmitting or receiving up to thirty-two 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 a baseband video signal, each from a 75-ohm source.
- C. The receiving device shall deliver a baseband video signal, 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 this or another passive transceiver 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 an amplified (active) receiver.
- G. The transceiver shall be equipped with removable screw terminal blocks 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.

- 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 6.6 lbs (3.0 kg).
 - N. The receiving device shall have dimensions of 17" wide, 1.7" (1RU) high, 8.125" deep (43 cm x 4.5 cm x 20 cm).
 - O. The transceiver shall be packaged with "L" brackets to support the front or rear rail rack mounting, or wall mounting; and rubber feet to support desk mount applications.
 - P. The transceiver shall be packaged with thirty-two 2-ft (60 cm) coax jumper cables.
 - Q. The transceiver shall be UL and CUL listed.
 - R. The transceiver shall be CE compliant.
 - S. The transceiver shall be provided with a limited lifetime warranty.
 - T. The Unshielded Twisted-Pair Video Transceiver Hub, 32-Port Passive, 750 FT (225 m) shall be the NVT:
 - a. NV-3213A or
 - b. Approved equal