

UNSHIELDED TWISTED PAIR ACTIVE VIDEO SYSTEM – TYPE EX1120

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION 16 – ELECTRICAL

SECTION 16 ___ - CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

PART 2 – PRODUCTS

2.1 GENERAL

- 2.1.1 All equipment to be supplied under this specification shall be new and the current model of a standard product of an OEM of record. An OEM of record shall be defined as a company whose main occupation is the manufacture for sale of the equipment supplied and which:
- A. Maintains a factory production line for the item submitted.
 - B. Maintains a stock of replacement parts for the item submitted.
 - C. Maintains engineering drawings, specifications, and operating manuals for the items submitted.
 - D. Has published and distributed descriptive literature and equipment specifications on the items of equipment submitted.
- 2.1.2 Specifications of equipment as set forth herein are salient and minimum requirements, unless otherwise stated and shall not be construed as limiting the overall quality, quantity or performance characteristics of items furnished.
- 2.1.3 Systems and components shall have been thoroughly tested and proven in actual use.
- 2.1.4 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

2.2 SPECIFICATIONS

- 2.2.1 The Twisted pair active video system, shall be a NITEK Model EX1120 or approved equivalent, and shall be capable of receiving baseband type monochrome or color video signals over unshielded twisted pair (UTP) telephone cables, Category 3 or better, 24 gage or heavier up to a maximum cable length of 12,000 feet (3.6 Km) – monochrome and 9,000feet (2.7 Km) color.
- 2.2.2 The EX1120 System shall consist of a NITEK Model TR1120 active receiver unit or approved equivalent and a NITEK Model TT1120 active transmitter unit or approved equivalent.
- 2.2.3 Receiving video signals, as described in paragraph 2.2.1 shall mean that the active video system shall be capable of delivering a monochrome or color video signal of 450 lines at the maximum specified distance.
- 2.2.4 Both the active receiver and active transmitter shall be provided with an AC power pack capable of providing 24 VAC at 2 Watts and shall have provisions to plug directly into an AC wall outlet and each shall provide two wires (2 foot minimum in length) to connect to the receiver power terminals.

UNSHIELDED TWISTED PAIR ACTIVE VIDEO RECEIVER – TYPE EX1120

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION 16 – ELECTRICAL

SECTION 16 ___ - CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

PART 2 – PRODUCTS (continued)

2.2 SPECIFICATIONS (continued)

- 2.2.5 The active receiver shall provide frequency equalization by means of twenty-four dual in-line (DIP) switches. The switches shall provide compensation for varying cable lengths from 1,000 to 12,000 feet. In addition the receiver shall have two potentiometers which shall provide adjustment to trim video level and peaking, respectively.
- 2.2.6 The active transmitter shall provide signal amplification and frequency equalization by means of four dual in-line (DIP) switches. The effect of the switches in both the transmitter and receiver units shall be to equalize and to amplify the video signal thereby providing loss compensation for video as cable length is increased, thereby optimizing the video signal and performance.
- 2.2.7 The active system shall be capable of equalizing a color video signal of NTSC standard 525 lines or PAL standard 625 lines and shall deliver a baseband video signal capable of driving a 75 ohm impedance load.
- 2.2.8 The transmitter and receiver units shall have built-in transient protection.
- 2.2.9 Video connection to the active transmitter and receiver units shall be by means of a BNC type female connector. Each shall have a five screw terminal block that shall provide connection to the UTP cable (2), 24 VAC power supply (2) and earth ground (1).
- 2.2.10 The active system shall operate within specifications without causing interference or interfering with any other base band video, communication, data and/or other low-voltage signals operating in multi-twisted pair UTP cables as specified in paragraph 2.2.1.
- 2.2.11 The active system shall be covered by a Limited Two Year Warranty.

2.3 PERFORMANCE SPECIFICATIONS

- 2.3.1 The active system unit shall meet or exceed the following performance specifications:
 - A. With a symmetrical and balanced composite input from the transmitter unit and using cables as specified in paragraph 2.2.1, at a cable length of 12,000 feet, the output from the receiver unit shall be a 1 Vpp composite monochrome video signal into 75 ohms.
 - B. With a symmetrical and balanced composite input from the transmitter unit and using cables as specified in paragraph 2.2.1, at a cable length of 9,000 feet, the output from the receiver unit shall be a 1 Vpp composite color video signal into 75 ohms.

UNSHIELDED TWISTED PAIR ACTIVE VIDEO RECEIVER – TYPE EX1120

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION 16 – ELECTRICAL

SECTION 16 ___ - CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

PART 2 – PRODUCTS (continued)

2.3 PERFORMANCE SPECIFICATIONS (continued)

- C. The system shall be capable of receiving RS170, NTSC, PAL, SECAM and CCIR video formats (color or monochrome).
- D. Operating frequency range: DC to 10 MHz.
- E. Common mode rejection to be > 70 dB.
- F. Voltage requirements: 24 VAC (Power Supplies provided).
- G. Size: Both transmitter and receiver units: Enclosures to be Black Cyclocac ABS Flame Retardent Thermoplastic with a maximum size of 1.25”h x 1.5”w x .75”d (w = 2.25” including BNC connector).
- H. Temperature: System must operate in an ambient temperature of –40 Degrees C to +85 degrees C, 0 to 98% non-condensing.