

PROJECT NUMBER _____

PROJECT NAME _____

DATE _____

PROJECT LOCATION _____

TECHNICAL SPECIFICATIONS

SECTION 28 23 00 - VIDEO SURVEILLANCE

SECTION 28 23 23 - VIDEO SURVEILLANCE SYSTEMS INFRASTRUCTURE

TYPE VB31PT VIDEO BALUN TRANSCEIVER FOR TWISTED PAIR

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 Unshielded Twisted Pair Video balun shall be a NITEK Model VB31PT or approved equivalent, and shall provide a means for transmitting baseband analog video signals per paragraph 2.2.2. The VB31PT shall via a single two pair 24 gauge Category 2 or greater unshielded twisted pair cable, transmit video for distances of up to 750 feet (229 meters) in length.
- 2.2.2 The VB31AT shall be used in combination with another video balun or with any of NITEK's line of designated video receiver solutions. The VB31AT shall have two (2) push pin terminals to interface with the 24 gauge Category 2 or greater cable, a 9" mini coax "pig tail" with a male BNC connector shall provide a means for connection to the analog camera and pathway for video transmission to and from the camera.

PROJECT NUMBER _____

PROJECT NAME _____

DATE _____

PROJECT LOCATION _____

TECHNICAL SPECIFICATIONS

SECTION 28 23 00 - VIDEO SURVEILLANCE

SECTION 28 23 23 - VIDEO SURVEILLANCE SYSTEMS INFRASTRUCTURE

TYPE VB31PT VIDEO BALUN TRANSCEIVER FOR TWISTED PAIR

PART 2 – PRODUCTS (Continued)

- 2.2.3 The NITEK VB31PT shall be capable of transmitting and receiving baseband type monochrome or color video signals over 2 separate unshielded twisted pair (UTP) telephone pairs, Category 2 or better, 24 gauge or heavier up to a maximum cable length of 750 feet (229 meters).
- 2.2.4 The VB31PT maximum distance for transmitting and receiving video shall be 750 feet (229 meters) when the output of the Unshielded Twisted Pair Receiver is coupled to a Digital Video Recorder (DVR) input.
- 2.2.5 The transceiver device shall not require power to operate as specified.
- 2.2.6 The VB31PT transceiver used as a transmitting device shall be designed to accept a baseband video signal from a 75 ohm impedance source and the transceiver used as a receiving device shall deliver a baseband video signal capable of driving a 75 ohm impedance load.
- 2.2.7 The VB31PT transceiver shall support bi-directional signal transmission, i.e.; video from the video source to the receiving equipment and control from the receiving end to the video source equipment over a single unshielded twisted pair (UTP) using equipment that provides bi-directional operation during the vertical interval. This operation is also referred to as “up-the-coax” control and the maximum UTP cable distances for this operation shall be as specified in paragraphs 2.2.1 and 2.2.2.
- 2.2.8 The device shall be capable of driving an active (powered) companion UTP receiver, NITEK Model TR560, (or approved equivalent) operating at a distance of up to 3,000 feet (1,000 meters) over cables specified in paragraph 2.2.1. The combination of the transceiver device and the active transmitter shall provide a minimum of 500 lines of video resolution.
- 2.2.9 The transceiver device shall also operate as specified in paragraphs 2.2.1 and 2.2.2 when used as a receiver for any commercially available UTP equipped camera, camera enclosure and/or dome in which a NITEK Model VB24 (or approved equivalent) is installed as a transmitter device.
- 2.2.10 The transceiver devices 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.

PROJECT NUMBER _____

PROJECT NAME _____

DATE _____

PROJECT LOCATION _____

TECHNICAL SPECIFICATIONS

SECTION 28 23 00 - VIDEO SURVEILLANCE

SECTION 28 23 23 - VIDEO SURVEILLANCE SYSTEMS INFRASTRUCTURE

TYPE VB43ATF VIDEO BALUN COMBINER FOR TWISTED PAIR

PART 2 – PRODUCTS (Continued)

- 2.2.11 The VB43ATF shall support bi-directional signal transmission, i.e.; video from the video source to the receiving equipment and control from the receiving end to the video source equipment over a single unshielded twistedpair (UTP) using equipment that provides such bi-directional operation during the vertical interval. This operation is also referred to as “up-the-coax” control.
- 2.2.12 The VB43ATF transceiver device shall be capable of driving an active (powered) video signal from a companion NITEK UTP video receiver models (or approved equivalent) operating at a distance of up to 3,000 feet (1,000 meters) over cable types specified in paragraph 2.2.1. The combination of the transceiver device and the active transmitter shall provide a minimum of 500 lines of video resolution.
- 2.2.13 The VB43ATF transceiver devices 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
- 2.2.14 The VB43ATF device shall be covered by a Limited Lifetime Warranty.

2.3 PERFORMANCE SPECIFICATIONS

- 2.3.1 The Video Balun Combiner shall meet or exceed the following performance specifications:
 - A. The transceiver device shall be capable of driving a color video signal of NTSC standard 525 lines or PAL standard 625 lines.
 - B. Video Format compatibility: RS170, NTSC, PAL, SECAM, CCIR (Color or Monochrome).
 - C. Input: 0.6 - 1.6 Vpp composite color or black & white video signal into 75 Ohms.
 - D. Operating frequency range: DC to 10 MHz.
 - E. Common mode rejection to be > 60 dB.
 - F. Voltage requirements: No Power Supply is required.
 - G. Power consumption: None
 - H. Electronics to be enclosed in UL approved fire retardant compound.
 - I. The dimension are 0.9"H x 1.0"W x 1.75"D.
 - J. Common mode rejection of >60 dB.
 - K. Temperature of 0°C to +85°C/ 32°F to 185°F
 - L. 0 to 98%, non-condensing

