UTP PASSIVE 16 PORT VIDEO BALUN TRANSCEIVER HUB – TYPE VH1639

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 a 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 16 channel passive video balun transceiver hub, shall be a NITEK Model VH1639 or approved equivalent, and shall be capable of transmitting and receiving baseband type monochrome or color video signals over 16 separate unshielded twisted pair (UTP) telephone pairs, Category 3 or better, 24 gage or heavier up to a maximum cable length of 1,000 feet (300 meters), with a second 16 port passive balun transceiver device, or any other model NITEK balun device (or approved equivalent) connected at the opposite end of the cable, except as specified in paragraph 2.2.2.

2.2.2 The maximum distance for transmitting and receiving shall be 750 feet (228 meters) when the output of the receiving hub is coupled to a Digital Video Recorder (DVR) input.

2.2.3 The video transceiver hub shall not require power to operate as specified.

2.2.4 The video transceiver hub shall have built-in transient protection, with a screw connection for earth ground.

2.2.5 When used as a transmitting device, each of the inputs of the video transceiver hub shall be designed to accept a baseband video signal from a 75 ohm impedence source and when used as a receiving device shall deliver a baseband video signal capable of driving a 75 ohm impedence load.

PART 2 – PRODUCTS (continued)
2.2 GENERAL SPECIFICATIONS (continued)

2.2.6 All 16 channels of the video transceiver hub 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 such 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.

2.2.7 Video connection to the transceiver hub hub shall be by means of 16 BNC type female connectors and connection to UTP cable shall be by means of two sixteen circuit terminal blocks, with 2 circuits for each pair. Each circuit shall provide a slotted head screw for securing the wire. The screw terminals shall be plated with a rust preventive material to prevent corrosion.

2.2.8 Each channel of the transceiver hub 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 video transceiver hub 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 hub 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 16 channel video transceiver hub shall be covered by a two year Warranty.

2.3 PERFORMANCE SPECIFICATIONS

2.3.1 The transceiver shall meet or exceed the following performance specifications:

A. Each channel of the transceiver hub shall be capable of driving a color video signal of NTSC standard 525 lines or PAL standard 625 lines.
B. Input: 0.6 to 1.6 Vpp composite color or black and white video signal into 75 Ohms.
C. Operating frequency range: DC to 10 MHz.
D. Common mode rejection to be > 60 dB.
E. Voltage requirements: No Power Supply is required.
F. Power consumption: None.

PART 2 – PRODUCTS (continued)
2.3 PERFORMANCE SPECIFICATIONS (continued)

G. The 16 channel hub shall have two printed circuit boards having eight transceiver channels, each which are mounted in a 19" Rack mountable cabinet; Size: 17" w x 5" d x 1.75" h (one rack unit high). The cabinet shall have a black finish.
H. Temperature: System must operate in an ambient temperature of –40 degrees C to +85 degrees C, 0 to 98% non-condensing.