

MULTICHANNEL PASSIVE UTP TRANSCEIVER HUB

GEC-4VPHUB, GEC-8VPHUB, GEC-16VPHUB, GEC-32VPHUB

SECURITY SYSTEM

28 23 00 VIDEO SURVEILLANCE

PART 2 - PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.

2.02 MULTICHANNEL PASSIVE UTP VIDEO TRANSCEIVER HUB

- A. The multichannel UTP passive video transceiver hub shall be capable of receiving or transmitting baseband monochrome or color video signals over unshielded twisted pair (UTP) wire from a passive transceiver up to a distance of 750 feet (228 m) without requiring power.
- B. If used as a Transmitter, Distances up to 3,500 feet (1,066 m) shall be supported when used in conjunction with an approved active UTP receiver.
- C. If used as a Transmitter, each channel shall accept a baseband video signal from a separate 75-ohm source and shall drive a 100 ohm UTP wire.
- D. If used as a Receiver, each channel shall accept differential 100 ohm signal from a UTP wire and produce a baseband video signal capable of driving a 75-ohm load.
- E. Shall be compatible with NTSC, PAL and SECAM color video standards.
- F. Bi-directional signal transmission via the Vertical Blanking Interval (VBI) of the video signal shall be supported up to 750 feet (229 m) when using this transceiver to transmit the signal to another passive transceiver, so long as all other requirements are met. These signals are typically known as "Up the Coax" control, used to facilitate Pan/Tilt/Zoom functionality with the appropriate and compatible PTZ hardware.
- G. The multichannel transceiver hub shall have integrated differential transient protection without the need for a ground connection. Additionally, the transceiver shall have integrated common mode transient protection, which to be functional, requires an electrical ground connection via screw terminal to protect video equipment against damaging voltage spikes.
- H. The multichannel transceiver hub shall be equipped with corrosion-resistant detachable terminal blocks for connection to UTP wire. The Transceiver shall be packed with attachable RJ-45 adaptors or will have built-in RJ-45 as an alternate choice for UTP connection.
- I. The multichannel transceiver hub's attachable RJ-45 adapters and built-in RJ-45 connectors shall comply with standard structured cabling pin-outs of RJ-45 per EIA/TIA 568B.
- J. Optional IDC Connectors shall be available to connect 4 UTP pairs per connector.

- K. The transceiver housing shall be equipped with an integrated female BNC connector for 75-ohm camera connection for each channel.
- L. The transceiver shall deliver signals operating in the same cable bundle as telephone, data, low voltage or other video signals, without interference.

2.03 ELECTRICAL SPECIFICATIONS

- A. Video Output Voltage: 0.6 to 1.6 Vp-p
- B. Common-mode rejection: 60 dB. 15 KHz-5 MHz
- C. Insertion Loss: .3 dB
- D. Color Video standard: NTSC, PAL and SECAM
- E. Frequency Response: 0 to 5Mhz depending on configuration
- F. Transient Immunity: ANSI / IEEE 587C62.41
- G. UTP Connector: Terminal block, RJ-45 adaptor, or IDC Connector
- H. Video Connector: BNC, 75 ohm
- I. Transmission Wiring: Category 2 or better UTP, 24-16 AWG (solid or stranded)
- J. Features: Surge suppression

2.03 ENVIRONMENTAL SPECIFICATIONS

- A. Storage Temperature: -22° to 158°F (-30° to 70°C)
- B. Operating Temperature: 16° to 122°F (-10° to 50°C)
- C. Operating Humidity Range: 0 to 95%, non-condensing

2.04 MECHANICAL SPECIFICATIONS- 4 Channel Passive Hub

- A. Height 1.74 in. (4.2 cm)
- B. Width **4.97 in (12.6 cm), 6.77 in (17.2 cm) include integrated rackmounts**
- C. Depth **1.77 in (4.5 cm)**
- D. Weight **.5 lb (228 g)**
- E. Material Extruded Aluminum

2.05 MECHANICAL SPECIFICATIONS - 8, 16 and 32 Channel Passive Hub

- A. Height 1.74 in. (4.2 cm)
- B. Width 18 in (45.7cm), 19.8 in (50.3 cm) include integrated rackmounts
- C. Depth 1.77 in. (4.5 cm)
- D. Weight 8 ch - .67 lb (303g), 16 ch – 1.74 lb (788g), 32 ch – 2.26 lb (1.02kg)
- E. Material Extruded aluminum

2.06 INCLUDED ACCESSORIES - 8, 16 and 32 Channel Passive Hub

- A. Mounting brackets for rack or wall installations
- B. 4-channel female RJ-45 to terminal block socket adaptor
- C. A 2-feet (60 cm) coax jumper cable for each channel

2.07 OPTIONAL ACCESSORIES - 4, 8, 16 and 32 Channel Passive Hub

- A. 4-channel IDC connector

2.08 OPTIONAL ACCESSORIES - 4 Channel Passive Hub

- B. 19-inch Rack panel kit to support up to two 4-channel hubs.

2.09 CERTIFICATIONS

- A. UL/cUL- FCC Part 15, Class A minimum, cUL 60950-1
- B. RoHS
- C. WEEE

2.10 WARRANTY

- A. Limited lifetime

2.11 ACCEPTED MANUFACTURER

- A. GE Security, Inc. 8985 Town Center Parkway, Bradenton, FL 34202-5129
- B. Phone 1-888-437-3287
- C. Email: gesecurity.customerservice@ge.com
- D. Substitutions: Not Permitted
- E. The unshielded twisted-pair active multi-channel video transceiver shall be GE Models GEC-4VPHUB, GEC-8VPHUB, GEC-16VPHUB, GEC-32VPHUB

END OF SECTION

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