

MULTICHANNEL UTP VIDEO-POWER-DATA COMBINER HUB

GEC-4VDPC, GEC-16VDPC, GEC-8VPDCHUB, GEC-16VPDCHUB

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 UTP VIDEO-POWER-DATA COMBINER HUB

- A. The device shall act as a combiner in that it shall be used to connect Video, Power and Pan/Tilt/Zoom Data signals. It shall connect using an RJ-45 Jack, which will accept an RJ-45 plug wired to CAT2 or better unshielded twisted pair cable. The receptacle shall be wired so that one twisted pair is designated for video transmission to and from the transceiver device, one twisted pair may be used for transmission of RS422/485 control signals and two twisted pairs may be used to provide operational power to the camera.
- B. Transmission of video, power and data signal shall be supported up to 750 feet (229 m) to another passive receiver, so long as all other requirements are met.
- C. Shall be compatible with NTSC, PAL and SECAM color video standards.
- D. The device shall support signals are typically known as "Up the Coax" control, used to facilitate Pan/Tilt/Zoom functionality with the appropriate and compatible PTZ hardware.
- E. The Combiner enclosure shall be equipped with a single RJ-45 jack designated for Data connection for each group of 4 remote cameras via Unshielded Twisted Pair wire.
- F. Shall be compatible with a video-power-data transceiver at each camera end and comply with standard structured cabling pin-outs of RJ-45 per EIA/TIA 568B.
- G. Shall have integrated differential transient protection without the need for a ground connection. Additionally, the device 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 Combiner Hub with no internal power supply shall provide the following:
 - 1. Each RJ-45 connector has a power load LED.
 - 2. External power supply will supply each power input via a pair of screw-less connectors.
 - 3. Each power channel shall have a 1.5 Amp resettable fuse.
- I. The Combiner Hub model with internal AC power supply shall provide the following:
 - 1. A fully isolated (floating) Class 2 24/28VAC power for each camera.

2. Total ground-loop immunity, pass-through video, and telemetry data connectivity over a single RJ45 4-pair UTP cable per camera.
3. Shall provide up to 1 Amp per channel, 12 Amps aggregate.
4. Each channel shall have independent diagnostic LEDS for fuse status and power load.

2.03 ELECTRICAL SPECIFICATIONS - Combiner Hub without internal isolated power supply

- | | |
|---------------------------|--------------------------------------|
| A. Color Video standard: | NTSC, PAL and SECAM |
| B. Video Output Voltage: | 0.6 to 1.6 Vp-p |
| C. Common-mode rejection: | 70 dB. 15 KHz-5 MHz |
| D. Insertion Loss: | .5dB |
| E. Frequency Response: | 0 to 5Mhz depending on configuration |
| F. Video Connectors: | RJ-45 |
| G. Data Connectors: | RJ-45 |
| H. Power Connectors: | Screw-less terminals |
| I. Camera Connectors: | RJ-45 |
| J. Transmission Wiring: | Category 2 or better UTP |
| K. Transient Immunity: | Per ANSI 587 C62.41 |

2.04 ELECTRICAL SPECIFICATIONS - Combiner Hub with internal isolated power supply

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|---------------------------|--|
| A. Input Voltage: | 110 VAC or 220 VAC, externally switch Selectable |
| B. Input Current: | 4.8 A (110 VAC) / 2.4 A (220 VAC) |
| C. Camera Power Voltage: | Isolated class II, switch selectable
24 VAC, off, or 28 VAC |
| D. Camera Current: | 1 A max per camera, 12 A max aggregated |
| E. Total power: | 340 VA |
| F. Fault Protection: | 2 A glass fuse (front access) per camera |
| G. Color Video standard: | NTSC, PAL and SECAM |
| H. Video Output Voltage: | 0.6 to 1.6 Vp-p |
| I. Common-mode rejection: | 70 dB. 15 KHz-5 MHz |
| J. Insertion Loss: | .5dB |
| K. Frequency Response: | 0 to 5Mhz depending on configuration |
| L. Video Connectors: | RJ-45 |
| M. Data Connectors: | RJ-45 |
| N. Camera Connectors: | RJ-45 |
| O. Transmission Wiring: | Category 2 or better UTP |
| P. Transient Immunity: | Per ANSI 587 C62.41 |

2.05 ENVIRONMENTAL SPECIFICATIONS

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|------------------------------|------------------------------|
| 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 |

2.06 MECHANICAL SPECIFICATIONS- 4 Channel Combiner Hub without internal isolated power supply

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|-----------|---|
| 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 **.44 lb (198 g)**
- E. Material Extruded Aluminum

2.07 MECHANICAL SPECIFICATIONS - 16 Channel Combiner Hub without internal isolated power supply

- 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 1.37 lb (620 g)
- E. Material Extruded aluminum

2.08 MECHANICAL SPECIFICATIONS - 8 and 16 Channel Combiner Hub with internal isolated power supply

- A. Height 1.7 in. (4.3 cm)
- B. Width 17 in. (43 cm)
- C. Depth 12 in. (30.5 cm)
- D. Weight 8 ch – 14.7 lb (6.65 kg), 16 ch – 22 lb (9.98 kg)
- E. Material Aluminum sheet metal

2.09 INCLUDED ACCESSORIES - 16 Channel Combiner Hub without internal isolated power supply

- A. Integrated rack mountable face plate

2.10 INCLUDED ACCESSORIES - 8 and 16 Channel Combiner Hub with internal isolated power supply

- A. Mounting brackets for front, rear or wall installations
- B. Molded IEC 7-ft. (200 cm) power cord
- C. Rubber feet to support desktop mount

2.11 OPTIONAL ACCESSORIES - 4 Channel Combiner Hub without internal isolated power supply

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

2.08 CERTIFICATIONS

- A. CE - EN 55022:2006, Class A minimum, EN 61000-3-2:2006, EN 61000-3-3+A2:2005, EN 50130-4+A2:2003, IEC/EN 60950-1
- B. UL/cUL - FCC Part 15, Class A minimum, cUL 60950-1
- C. RoHS
- D. WEEE

2.09 WARRANTY

- A. Limited lifetime

2.12 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 receiver shall be GE Models GEC-4VDPC, GEC-16VDPC, GEC-8VPDCHUB, GEC-16VPDCHUB

END OF SECTION

GE is a registered trademark in the United States and other countries.