

SINGLE CHANNEL ACTIVE UTP TRANSMITTER AND RECEIVER WITH
AUTOMATIC VIDEO COMPENSATION

GEC-1AVT, GEC-1AVR-AVC-4

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 SINGLE CHANNEL ACTIVE UTP VIDEO TRANSMITTER AND RECEIVER

- A. The single channel active device shall be compatible with baseband video from a 75-ohm source.
- B. Shall be compatible with NTSC, PAL and SECAM color video standards.
- C. The single channel active device shall have integrated differential transient protection without the need for a ground connection. Additionally, the single channel active 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.
- D. The single channel active device shall be equipped with corrosion-resistant lever type tool-less wire connectors for connection to UTP wire.
- E. The single channel active device shall be powered by 12VDC or 24AC, 150 milliamps maximum. The device shall include a suitable power supply unit that is powered from an AC wall outlet.
- F. The single channel active device shall have a Red "Power-On" LED.
- G. The single channel active device shall deliver signals operating in the same cable bundle as telephone, data, low voltage or other video signals, without interference.
- H. The Single Channel Active UTP Video Transmitter
 - 1. Shall be capable of transmitting one baseband monochrome or color video signal over unshielded twisted-pair (UTP) telephone wire to an active receiver up to a distance of 6,000 feet (1,830 m) with NTSC or PAL video signals.
 - 2. Shall be equipped with an integrated female BNC connector for 75-ohm camera connection.
 - 3. Shall have no more than a 2 position distance equalization slide switch.

I. The Single Channel Active UTP Video Receiver

1. Shall be capable of receiving one baseband monochrome or color video signals over unshielded twisted-pair (UTP) telephone wire from a passive transceiver up to a distance of 2000 feet (600 m). Distances up to 4,000 feet (1200 m) shall be supported when used in conjunction with an amplified (active) transmitter for NTSC or PAL video signals using Category 5 cable.
2. Shall continuously analyze incoming video signal and automatically compensate for cable attenuation independent of video signal content.
3. Shall have no potentiometer for adjustment of distance equalization.
4. Shall be equipped with dual integrated female BNC connectors for 75-ohm video output connection

2.03 ELECTRICAL SPECIFICATIONS – Single Channel Active Transmitter

- | | |
|----------------------------|--------------------------------------|
| A. Input Power Voltage: | 12VDC/24VAC, 150 mA max |
| B. Video Output Voltage: | 0.6 to 1.6 Vp-p |
| C. Common-mode rejection: | 70 dB. 15 KHz-5 MHz. |
| D. Color Video standard: | NTSC, PAL and SECAM |
| E. Frequency Response: | 0 to 5Mhz depending on configuration |
| F. Transient Immunity: | ANSI / IEEE 587 C62.41 |
| G. Video Input Connector: | Single female BNC, 75 ohm |
| H. Video Output Connector: | Screw-less terminal block, 100 ohm |
| I. Input Power Connector: | Screw-less terminal block |
| J. Transmission Wiring: | Category 2 or better UTP |

2.04 ELECTRICAL SPECIFICATIONS – Single Channel Active Receiver

- | | |
|----------------------------|---------------------------------------|
| A. Input Power Voltage: | 12VDC/24VAC, 150 mA max |
| B. Video Output Voltage: | 0.6 to 1.6 Vp-p |
| C. Common-mode rejection: | 70 dB. 15 KHz-5 MHz. |
| D. Color Video standard: | NTSC, PAL and SECAM |
| E. Frequency Response: | 0 to 5Mhz depending on configuration |
| F. Transient Immunity: | ANSI / IEEE 587 C62.41 |
| G. Video Input Connector: | Screw-less terminal block, 100 ohm |
| H. Video Output Connector: | Dual female BNC, 75 ohm |
| I. Input Power Connector: | Screw-less terminal block |
| J. Transmission Wiring: | Category 2 or better UTP |
| K. Feature: | Automatic video distance compensation |

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 - Single Channel Active Transmitter

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|-----------|------------------|
| A. Height | 1.0 in. (2.5 cm) |
|-----------|------------------|

- B. Width 2.9 in (7.1 cm)
- C. Length 1.6 in (4.1 cm)
- D. Weight .1 lb (44 g)
- E. Material Bone ABS plastic, UL rating of 94V-0

2.07 MECHANICAL SPECIFICATIONS - Single Channel Active Receiver

- A. Height 1.0 in. (2.5 cm)
- B. Width 2.9 in (7.1 cm)
- C. Length 1.6 in (4.1 cm)
- D. Weight .12 lb (54 g)
- E. Material Bone ABS plastic, UL rating of 94V-0

2.08 INCLUDED ACCESSORIES

- A. External 12 VDC power supply
- B. Mounting screws

2.09 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

2.10 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 single channel video Transmitter and receiver shall be GE Model GEC-1AVT, GEC-1AVR-AVC-4

END OF SECTION

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