

## Technical Specifications

<b>Environment</b>	Close-Circuit TV (CCTV) equipment for security and surveillance
<b>Devices</b>	CCTV cameras, monitors, switchers, sequencers, multiplexers, and other CCTV equipment
<b>Bandwidth</b>	Video: DC to 8 MHz
<b>Maximum Input</b>	1.1Vp-p
<b>Insertion Loss</b>	Less than 2 dB per Balun pair over frequencies from DC to 8 MHz
<b>Return Loss</b>	Better than 15 dB over the frequency range from DC to 8 MHz
<b>Common Mode Rejection</b>	Greater than 40 dB @ 8 MHz
<b>Max. Distance Color</b>	Cat 3 –1200 ft (365m); Cat 5 – 2200 ft (670m)
<b>Max. Distance Black &amp; White</b>	Cat 3 –1500 ft (457m); Cat 5 – 2500 ft (762m)
<b>Cable – UTP</b>	24 gauge or lower solid copper twisted pair wire impedance: 100 ohms at 1 MHz Maximum capacitance: 20 pF/foot Attenuation: 6.6 dB/1000 ft at 1 MHz
<b>Cable – BNC</b>	Impedance: 75 ohms at 1 MHz (RG59/U)
<b>Connectors and pin configuration</b>	RJ45 Pin 7 (Ring) & Pin 8 (Tip) *Reverse polarity sensitive
<b>Impedance</b>	Input: 75 ohms (BNC) Output: 100 ohms (RJ45)
<b>Temperature</b>	Operating: 0 to 55 °C      Storage: -20 to 85°C Humidity: up to 95%
<b>Enclosure</b>	Fire retardant plastic
<b>Dimensions</b>	1.75" x .75 x 1" (4.4 x 1.9 x 2.54 cm)
<b>Warranty</b>	2 years
<b>Order Information</b>	V1, V1-Pac



The V1 Video Balun eliminates 75-ohm coaxial cable and allows composite baseband video to be transmitted via single unshielded twisted pair (UTP) wiring in a Structured Cabling System. V1 Baluns are used in pairs to transmit standard NTSC, PAL, or SECAM composite video.



## Frequently Asked Questions

- Is the V1 Balun reverse polarity sensitive?  
*Yes.*
- Can more than one camera signal be transmitted under one 4-pair Cat 5 UTP cable?  
*Yes. Up to four (4) camera signals can be transmitted under a 4-pair Cat 5 UTP cable. Each camera signal uses one pair. V1-ST is recommended for such applications.*
- Can 25-pair and 50-pair bulk twisted pair cable be used to transmit multiple camera signals?  
*Yes. As long as the 25-pair and 50-pair cable meets Cat 5 specifications, it may be used to transmit up to 25 or 50 camera signals, respectively.*
- Can CCTV camera power and audio be transmitted under the same UTP cable jacket as video?  
*Yes. On separate twisted pairs.*
- Will the V1 Baluns work with other cable besides Cat 5?  
*Yes. The V1 Baluns will work with lower grades of cable such as Cat 3. Maximum distances will be less than with Cat 5.*
- Where can I find a weather-resistant Cat 5 cable?  
*Major cable vendors offer weather-resistant Cat 5 cable. Contact Intelix Technical Support to help locate a supplier.*
- What is the maximum length of twisted pair at a given gauge wire?  
*Maximum cable lengths are specified for 24AWG UTP cable. If lower gauge cable (i.e., 22AWG) is used, greater distances may be achieved.*
- Will the V1 Baluns work with 100-ohm shielded twisted pair (STP)?  
*Yes; however, shorter distances may be achieved due to higher capacitance. If used, ground the shield at least on one end.*
- Does the V1 Balun work in conjunction with other CCTV Baluns?  
*Yes. Providing that the signal polarity of the Baluns match. Please note, picture quality may be affected.*



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