

Overview

The CCTV Pass-Thru Balun (500022) allows video, remote power and 2-wire PTZ control signals to be transmitted via one 4-pair Cat5e/6 cable, thus eliminating the need to install multiple cables for more efficient cabling. The CCTV Pass-Thru Balun may be used in pairs or in conjunction with MuxLab's Passive CCTV Hub (500130).



Features/Benefits

Combines video, power and PTZ control under one 4-pair Cat5e/6 cable for more efficient cabling
 Video up to 2,200 ft (670m) via Cat 5 UTP*
 Compact - fits inside dome cameras, back boxes.
 * Shorter distances may result with certain models of DVR.

Specifications			
Environment		Baseband video; NTSC, PAL, SECAM	
Devices		Close-circuit TV (CCTV) cameras , monitors, switchers, IP encoders, digital video recorders (DVR) and other CCTV equipment.	
Transmission		Transparent to the user.	
Video			
Bandwidth		DC to 8 MHz.	
Impedance		Input: 75 ohms (BNC); Output: 100 ohms (RJ45)	
Maximum Input		1.1Vp-p	
Insertion Loss		Less than 2 dB per pair over the frequency range from DC to 8 MHz	
Return Loss		Greater than 15 dB over the frequency range from DC to 8 MHz	
Common Mode Rejection		Greater than 40 dB @ 8 MHz	
Max. Distance - Colour		Cat 3 –1,200 ft (365m); Cat 5 – 2,200 ft. (670m)* <i>*Certain models of DVR may yield shorter distances of 1,000 to 1,500 ft</i>	
Max. Distance - Black & White		Cat 3 –1,500 ft (457m); Cat 5 – 2,500 ft (762m)	
Remote Power (ie; 24 VAC, 28 VAC)			
Wiring		Remote low voltage power supported via two (2) twisted pairs. A Class II power supply is recommended.	
Max. Distance @ 24VAC via two twisted pairs*		5 vA: 350 ft (107m)* 10 vA: 175 ft (53m)* 20 vA: 90 ft (30m)* 30 vA: 60 ft (20m)* <i>*Longer distances may be achieved @ 28 VAC. *Based on 10% voltage drop at camera. Please consult your CCTV equipment vendor for more detailed performance specifications.</i>	
2-Wire PTZ Control (i.e. RS-422, Manchester/Bi-Phase, half duplex RS485)			
Wiring		Remote 2-wire PTZ control supported via one (1) twisted pair.	
Maximum Distance		Up to 4,000 ft (1.2 km) depending on the PTZ camera vendor** <i>**Please consult your CCTV equipment vendor for more detailed performance specifications.</i>	
Maximum Input Voltage		50 Volts (AC RMS/DC)	
Maximum Current Rating		3A (AC RMS/DC)	
Mechanical & Environmental			
Cable – UTP		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	
Cable – Coax		Impedance: 75 Ω at 1 MHz. (RG59/U). Max. 25 ft. of coax allowed end to end.	
Connectors		Combined signals: RJ45 Video: BNC-male 8" mini-coax lead Power: 2-wire 18AWG lead Control: 2-wire 24AWG twisted pair lead	
Pin Configuration* <i>*Reverse polarity sensitive</i>		Signal	RJ45 Pin
		Power A	1 (common with 3)
		Power B	2 (common with 6)
		Power A	3 (common with 1)
		Control +	4
		Control -	5
		Power B	6 (common with 2)
		Video BNC Center (Tip)	7 [T] opposite to 500000
		Video BNC Ground (Ring)	8 [R] opposite to 500000
			Cable Lead Color
			Red
			Black
			Red
			Blue solid/White band*
			White solid/Blue band*
			Black
			Mini-coax
			Mini-coax
Temperature		Operating: 0° to 55°C. Storage:-20° to 85°C. Humidity: up to 95%	
Enclosure		ABS fire retardant plastic	
Dimensions		1.875" (4.7cm)x 1.0" (2.54cm) diameter plus cable leads; 8" (20cm) for video; 10" (25.4cm) for power and control leads	
Weight		1.95 oz (55 gms)	
Warranty		Lifetime	
Order Information		500022 CCTV Pass-Thru Balun	

Typical Applications

