

Overview

The CCTV Power-Thru Balun allows video and remote power to be transmitted via one 4-pair Cat 5 cable, thus eliminating the need to install multiple cables for more efficient cabling in the CCTV security and surveillance environment. There are two models: 500024; with modular RJ45 connector and 500029; with screw terminals.



Features/Benefits

Video and remote power via one 4-pair Cat 5 cable
 Video up to 2,200 ft (670m) via Cat 5 UTP*
 Remote power up to 500 ft (170m) @ 24VAC/5VA
 via three (3) twisted pairs

** Shorter distances may result with certain models of DVR.*

The Power-Thru Balun may be used in pairs or in conjunction with MuxLab's Passive CCTV Hub (500130).

Specifications			
Environment	Baseband video; NTSC, PAL, SECAM		
Devices	Close-circuit TV (CCTV) cameras , monitors, switchers, sequencers, multiplexers, 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 power via three (3) twisted pairs. Class II power supply recommended.		
Max. Distance @ 24VAC via three (3) twisted pairs*	5 VA: 518 ft (170m)* 10 VA: 259 ft (85 m)* 20 VA: 130 ft (43 m)* 30 VA: 86 ft (28 m)* <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>		
Maximum Input Voltage	50 Volts (AC RMS/DC)		
Maximum Current Rating	4.5A (AC RMS/DC)		
Mechanical & Environmental			
Cable – UTP	24 AWG 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	Video: BNC-male 8" mini-coax lead Power: 2-wire 18AWG lead Combined signals: RJ45 (500024); Screw terminals (500029)		
Pin Configuration*	Signal	RJ45 Pin	Cable Lead Color
	Power A	1 (common with 3&5)	Red
	Power B	2 (common with 4&6)	Black
	Power A	3 (common with 1&5)	Red
	Power B	4 (common with 2&6)	Black
	Power A	5 (common with 1&3)	Red
	Power B	6 (common with 2&4)	Black
	Video BNC Center (Tip)	7 [T] opposite to 500000	Mini-coax
Video BNC Ground (Ring)	8 [R] opposite to 500000	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 lead		
Weight	1.95 oz (55 gms)		
Warranty	Lifetime		
Order Information	500024	CCTV Power-Thru Balun, RJ45	
	500029	CCTV Power-Thru Balun, Screw Terminal	

CCTV Power-Thru Balun 500024, 500029

Typical Applications

