

Overview

The LongReach II Active CCTV Receiver Balun (500124) provides extended distance between the CCTV camera and the DVR via Cat5e/6 cable. The product features Auto Gain Control (AGC) and supports up to 5,000 ft (1.5 km) via Cat5e/6 cable when used in conjunction with MuxLab's full range of passive CCTV baluns.



The LongReach II also allows video, remote power and 2-wire PTZ control to be combined over Cat5e/6 cable and features ground loop isolation (GLI) for optimum video transmission.

Features

- Up to 5,000 feet (1.5 km) via Cat5e/6
- Video, power and PTZ over one Cat5e/6
- Auto Gain Control (AGC)
- Auto Polarity Correction
- Ground Loop Isolation (GLI)
- Surge protection
- LED diagnostics
- Supports MuxLab mounting accessories (500900/902/910/915)

Applications

Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, self-storage, hospitals, car dealerships.

Specifications	
Environment	CCTV composite baseband video; NTSC, PAL, SECAM
Devices	CCTV cameras, monitors, DVR, switchers, IP encoders, and other CCTV equip.
Transmission	Transparent to the user
Video	
Bandwidth	20 Hz to 8 MHz.
Input	1.5 Vp-p max, 100Ω, balanced (RJ45)
Output	1.1 Vp-p, ± 1 dB, 75Ω, unbalanced (BNC)
Insertion Loss	-14 dB minimum for luma, -60 dB minimum for chroma. Determined by Automatic Gain Control.
Return Loss	Greater than 15 dB over the frequency range
Common Mode Rejection	Greater than 40 dB @ 3.85 MHz
Ground Loop Isolation	Up to +/-50VDC
Auto Polarity Correction	Automatically adjusts for any polarity
Max. Distance via Cat5e/6	NTSC: 5,000 ft (1.5 km) <i>*Coax jumper cables must be less than 30 ft (9m)</i>
LED Diagnostics	Power, Video Sync
Auto Gain Control (AGC)	Automatically adjusts for gain, sharpness and luminosity
Remote Power (i.e.; 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 three twisted pairs* . <i>*Longer distances may be achieved @ 28 VAC.</i>	2 VA: 1,500 ft (457m)* 4 VA: 745 ft (227m)* 10 VA: 300 ft (91m)* 20 VA: 150 ft (46m)* <i>*Based on 10% voltage drop at camera. Please consult your CCTV vendor for more info.</i>
Max. Current	Fuse supports 2.5A rms or DC. Fuse trips @ 5A
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
Maximum Input Voltage	48 Volts (AC RMS/DC)
Maximum Current Rating	2A (AC RMS/DC). No fuse

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Specifications (Cont'd) 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)		
Switch	Select between Power-Thru (500024/500029) and Pass-Thru (500022) Mode		
RJ45 Pin Configuration* <i>*Reverse polarity sensitive if 12DC camera is used</i>	Signal	500022 Mode	500024/500029
	Power A (+) *	1, 3	1, 3, 5
	Power B (-) *	2, 6	2, 4, 6
	Control (+)	4	NA
	Control (-)	5	NA
	Video BNC Center (Tip)	7 [T] same as 500000R	7 [T] same as 500000R
Video BNC Ground (Ring)	8 [R] same as 500000R	8 [R] same as 500000R	
Connectors	Video: BNC-F Remote Power: 2-pole screw terminal block PTZ: 2-pole screw terminal block Cat5e/6 Link: RJ45S Power connector Gnd screw terminal		
Compatible Baluns	500000, 500000R, 500009, 500022, 500024, 500100/101		
Power Supply (included)	5VDC/6W/100mA max. Floating +/- 20%. 150mA max. Interchangeable blades		
Transient Voltage Protection	± 2.5V on the video line ± 48V on the power and control lines		
AC/DC power surge protection	Above 34VAC RMS or +/- 48 VDC.		
Fuse Protection	Auto-resettable fuse on 5VDC input and Power A (+) upon power cycling.		
Temperature	Operating: 0° to 55°C. Storage: -20° to 85°C. Humidity: up to 95%		
Enclosure	ABS fire retardant plastic		
Dimensions	2.40" x 2.25" x 1.0" (6.1 x 5.7 x 2.54 cm)		
Weight	3 oz (85 gms)		
Regulatory	FCC and CE.		
Warranty	2 years		
Order Information	500124 LongReach II Active CCTV Receiver Balun		

Typical Application

