MuxLab
CCTV ™

YOUR #1 CHOICE FOR CCTV CONNECTIVITY SOLUTIONS

2014 Product Guide

CCTV
STRUCTURED CABLING SOLUTIONS

MuxLab's mission

Established in 1984, MuxLab is proud to be celebrating its 30th birthday this year!

MuxLab is a leading designer of value-added connectivity hardware allowing CCTV equipment to be connected via cost-effective copper twisted pair. MuxLab's goal is to provide the CCTV market with easy to use and affordable solutions for transferring security signals over Cat5e/6 cable and allowing existing coax cabling to be upgraded to an IP system.

MuxLab understands the market's need for quality, performance, and reliability and we design & engineer all of our products in Canada with this focus in mind. Coming up on our 30th anniversary, we continue to support our main mission to provide our customers with innovative and industry leading designs and the dependability you need. Let us join you and help ease your signal transmission with ease!
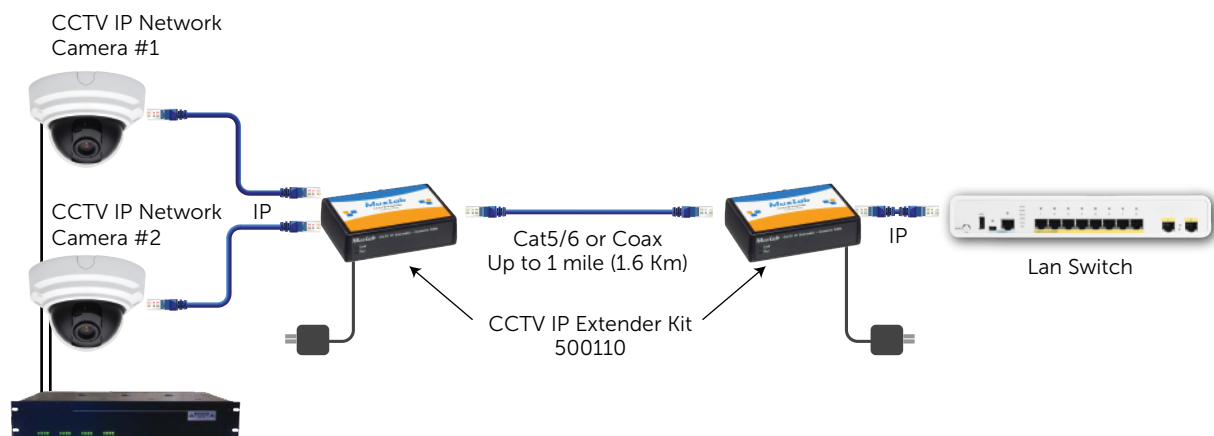
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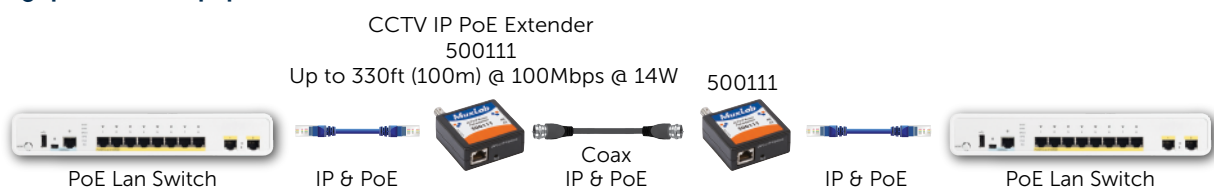
The MuxLab Team
Montreal, Canada

Proud to be Canadian

MuxLab is proud to design and engineer its products in Canada, by Canadian professionals. We create jobs and support local manufacturing, something we're proud of today and every day.

Typical Application 500110

CCTV IP Network
Camera #1

CCTV IP Network
Camera #2

IP

Cat5/6 or Coax
Up to 1 mile (1.6 Km)

IP

Lan Switch

CCTV IP Extender Kit
500110

Typical Application 500111

CCTV IP PoE Extender
500111
Up to 330ft (100m) @ 100Mbps @ 14W

500111

PoE Lan Switch

IP & PoE

Coax
IP & PoE

IP & PoE

PoE Lan Switch

IP Chart

PRODUCTS	500110	500111	500112	500112-30W	500114
Coax	Yes	Yes	Yes	Yes	Yes
Cat5e/6	Yes	-	-	-	-
PoE	N/A	14W	15.4W	30W	15.4W
Distance	1.5km	100m	300m	300m	1km
LAN	100m	3m	100m	100m	100m

IP over Coax Extenders

CCTV IP Extender Kit

The CCTV IP Extender Kit (500110) allows any CCTV IP camera to be connected over extended distance via Cat5e or coax cable. The 500110 supports up to two IP cameras up to 650 ft (200m) at 100 Mbps and up to 1 mile (1.6km) at 25Mbps.

Application	Video production, broadcasting, HD camcorder, studio-to-studio, post-production, live events, medical imaging displays, mobile video, HD/SD routing, HD-CCTV, medical imaging
Key Features	Extend distance between IP camera and 10/100BaseT LAN
	Supports up to two IP cameras via coax or Cat5e/6 (1 twisted pair)
	Up to 650 ft (200m) @ 100Mbps
	Up to 1 mile (1.6 km) @ 25Mbps

Up to 1 Mile

CCTV IP PoE Extender

The CCTV IP PoE Extender (500111) allows one IP camera (14 Watts) to be connected up to 1600 ft (500 m) via a single 75-ohm coax cable in a point-to-point configuration. The product works in pairs and the power consumption is low enough so that it does not load the PoE source or switch. The maximum distance depends on the grade of coax cable and the power consumption of the camera.

Application	Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, entry gates, self-storage, hospitals, car dealerships, prisons, network connections
Key Features	Used in pairs (sold separately or as 2-pack)
	Connects IP PoE camera to 10/100BaseT PoE switch via single coax cable
	Up to 330 ft (100m) @ 100Mbps @ 14W
	Mode switch to select PoE Mode A or B
	Does not require external PSU
	Works with MuxLab mounting accessories

Up to 330 Ft. @ 100Mbps

LongReach CCTV IP PoE Extender Kit

The LongReach CCTV IP PoE Extender Kit (500112) allows one CCTV PoE IP camera (up to 15.4 Watts) to be connected up to 980 ft (300 m) via a single 75-ohm coax cable in a point-to-point configuration to a PoE LAN switch. If the LAN switch is not PoE, then the 48VDC Power Supply (500113) is required in order to power the PoE camera and the 500112. The maximum distance depends on the grade of coax cable and the power consumption of the camera.

Application	Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, entry gates, self-storage, hospitals, car dealerships, prisons, network connections
Key Features	Supports one IP PoE camera via one coax cable
	Supports CCTV IP PoE cameras up to 15.4W
	Up to 980 ft (300m) via coax @ 100Mbps/15.4W
	Up to 330 ft (100m) on the LAN connection
	LED indicators for power, IP traffic, 100Mbps
	Supports MuxLab mounting accessories (500900/902/910/915)

Up to 1000 Ft. @ 100Mbps

LongReach CCTV IP PoE Extender Kit, 30W

The Active HD CCTV Receiver Balun (500721) provides extended distance between an HD-SDI CCTV camera and an HD-SDI DVR via Cat5e/6 cable. The product supports up to 150 ft (45m) via Cat5e cable at HD (720p, 1080i) resolution when used in conjunction with MuxLab's HD CCTV Pass-Thru Balun (500720). Furthermore, the 500721 allows remote power and 2-wire PTZ control to be combined with HD- SDI video over the same Cat5e/6 for optimized cabling.

Application	Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, self- storage, hospitals, car dealerships.
Key Features	Supports one IP PoE camera via one coax cable
	Supports CCTV IP PoE cameras up to 30W
	Up to 980 ft (300m) via coax @ 100Mbps/30W6
	Up to 330 ft (100m) on the LAN connection
	LED indicators for power, IP traffic, 100Mbps
	Includes wall-mount brackets

Use with 30W Cameras

Power Supply for model 500112 (48VDC)

LongReach CCTV IP PoE Extender Kit, 1KM

The LongReach CCTV IP PoE Extender Kit, 1Km (500114) allows one IP camera (15.4 Watts) to be connected up to 3281 ft (1000m) via a single 75-ohm coax cable in a point-to-point configuration. The maximum distance depends on the grade and quality of coaxial cable.
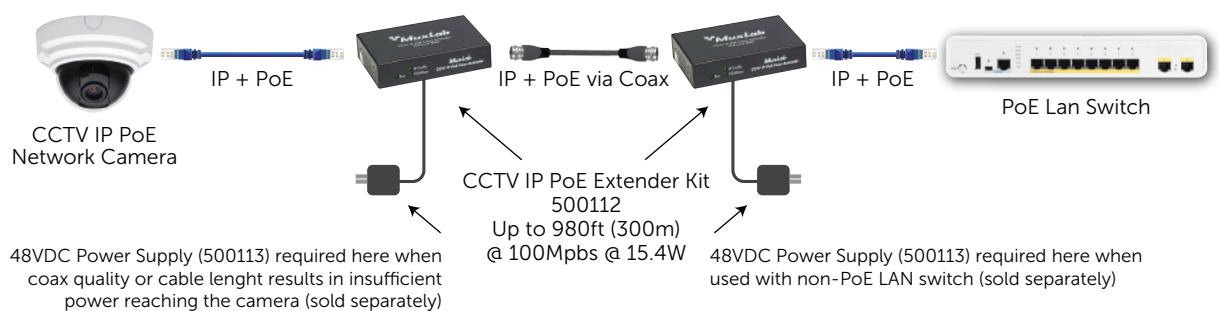
Application	CCTV IP surveillance
Key Features	Supports one IP PoE camera via one coax cable
	Supports CCTV IP PoE cameras up to 15.4W
	Up to 3281 ft. (1km) via coax @ 100Mbps/15.4W
	LED indicators for power, IP traffic, 100Mbps
	Includes wall-mount brackets
	Supports MuxLab mounting accessories (500900/902/910/915)

Up to 1 Km

Typical Application 500112

IP + PoE

IP + PoE via Coax

IP + PoE

PoE Lan Switch

CCTV IP PoE Network Camera

CCTV IP PoE Extender Kit 500112 Up to 980ft (300m) @ 100Mpbs @ 15.4W

48VDC Power Supply (500113) required here when coax quality or cable lenght results in insufficient power reaching the camera (sold separately)

48VDC Power Supply (500113) required here when used with non-PoE LAN switch (sold separately)

LongReach™

SDI & HD-SDI Baluns

HD-SDI Balun

The HD-SDI Balun allows one HD-SDI signal to be transmitted up to 150 ft (45m) via Cat5e cable at HD resolution in a point-to-point configuration. The HD-SDI Balun supports transmission of up to 2.97/3.0 Gbps uncompressed, un-encrypted digital video (optionally including embedded Audio and/or Time Code) within television facilities and between professional video equipment.

Application	Video production, broadcasting, HD camcorder, studio-to-studio, post-production, live events, medical imaging displays, mobile video, HD/SD routing, HD-CCTV, medical imaging
Key Features	Supports SD and HD resolutions
	Up to 150 ft (45m) via Cat5e cable @ HD
	Up to 400 ft (120m) via Cat5e cable @ SD
	Supports Cat5e/6 cable
	Cast aluminum enclosure for EMI/RFI shielding

HD CCTV Pass-Thru Balun

Part # 500720

The HD CCTV Pass-Thru Balun (500720) allows one HD CCTV (HD-SDI) video channel plus remote power and PTZ control to be transmitted between the HD CCTV camera and the DVR via Cat5e/6 cable in the HD CCTV environment. The 500720 may be used in conjunction with either another 500720 or in conjunction with the 500720-CL or 500721.

Application	Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, self- storage, hospitals, car dealerships.
Key Features	HD-SDI video, power and PTZ over one Cat5e/6
	Up to 100 feet (30m) @ HD-SDI (720p, 1080i) via Cat5e cable
	Remote power powers the balun when present
	Power supply required when no remote power
	Used in pairs or with 500720-CL or 500721
	Supports MuxLab mounting accessories (500900/902/910/915)

HD CCTV Pass-Thru Balun with Cable Leads

The HD CCTV Pass-Thru Balun with Cable Leads (500720-CL) allows one HD CCTV (HD- SDI) video channel plus remote power and PTZ control to be transmitted between the HD CCTV camera and the DVR via Cat5e/6 cable in the HD CCTV environment. The 500720-CL is used in conjunction with either another 500720-CL or in conjunction with the 500720-CL or 500721.

Application	Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, self- storage, hospitals, car dealerships.
Key Features	HD-SDI video, power and PTZ over one Cat5e/6
	Supports SD and HD (720p, 1080i)
	Works in pairs or with 500720 or 500721
	Supports Cat5e/6 cable

Active HD CCTV Receiver Balun

The Active HD CCTV Receiver Balun (500721) provides extended distance between an HD-SDI CCTV camera and an HD-SDI DVR via Cat5e/6 cable. The product supports up to 150 ft (45m) via Cat5e cable at HD (720p, 1080i) resolution when used in conjunction with MuxLab's HD CCTV Pass-Thru Balun (500720). Furthermore, the 500721 allows remote power and 2-wire PTZ control to be combined with HD- SDI video over the same Cat5e/6 for optimized cabling.

Application	Campus, highways, airports, hotels, casinos, commercial complexes, remote parking lots, self- storage, hospitals, car dealerships.
Key Features	Supports HD CCTV (HD-SDI)
	Supports up to 150 feet (45m) @ HD-SDI (720p, 1080i) via Cat5e cable
	Supports video, remote power and control over one Cat5e/6
	Use in conjunction with 500720 or 500720-CL
	LED diagnostics: power and SDI sync
	Supports MuxLab mounting accessories (500900/902/910/915)

Analog Baluns & Hubs

CCTV Modular Balun

The CCTV Modular Balun allows a single composite CCTV video signal to be transmitted via a single unshielded twisted pair for more versatile security and surveillance cabling. Used in pairs, the CCTV Balun eliminates costly and bulky coax cable, allowing CCTV equipment to be connected to any convenient modular outlet. Ideal for CCTV installers, end-users and resellers. The CCTV Balun may also be used in conjunction with MuxLab's Audio-Video Hub (500200) for distribution to multiple monitors.

Key Features	
	Up to 2500 feet (760m) in B&W via Cat5e/6 twisted pair
	Up to 2200 feet (670m) in color* via Cat5e/6 twisted pair
	BNC coax to RJ45 modular
	Compact design
	Weather resistant

Shorter distances may be achieved when used with DVRs.

CCTV Screw Terminal Balun

The CCTV Screw Terminal Balun allows a single composite CCTV video signal to be transmitted via a single unshielded twisted pair (UTP) cable for more versatile security and surveillance cabling. Used in pairs, the CCTV Balun eliminates costly and bulky coax cable, allowing CCTV equipment to be connected via cost-effective twisted pair. The CCTV Balun may also be used in conjunction with MuxLab's Audio-Video Hub (500200) for video distribution to multiple monitors.

Key Features	
	Up to 2500 feet (760m) in B&W via Cat5e/6 twisted pair
	Up to 2200 feet (670m) in color* via Cat5e/6 twisted pair
	Small enough to fit side-by-side on any video multiplexer
	BNC coax to screw terminals
	Polarity identification label
	Cable strain relief
	Weather resistant

Shorter distances may be achieved when used with DVRs.

CCTV Mini Balun

The CCTV Mini Balun allows a single CCTV video signal to be transmitted via cost-effective unshielded twisted pair (UTP) cable. Used in pairs, the CCTV Balun eliminates costly and bulky coaxial cable, allowing CCTV security and surveillance equipment to be connected using standard structured cabling techniques for neater and more streamlined cabling. The flexible mini coax cable lead allows the product to fit neatly inside CCTV camera back boxes and dome camera enclosures. The CCTV Balun also works in conjunction with other MuxLab CCTV baluns such as the 500000, 500009 and 500015 for a complete cabling solution.

Key Features	
	Fits inside CCTV dome cameras and back boxes
	Compatible with other MuxLab CCTV baluns
	Up to 2200 feet (670m) via Cat5e/6 UTP*
	Cable strain relief

Shorter distances may be achieved when used with DVRs.
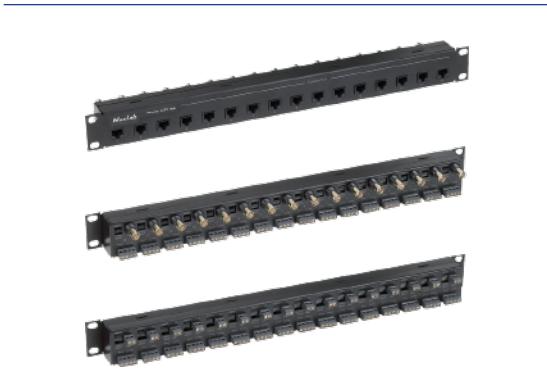
CCTV Power-Thru Balun

The CCTV Power-Thru Balun allows video and remote power to be transmitted via one 4-pair Cat5e/6 cable, thus eliminating the need to install multiple cables for more efficient cabling in the CCTV security and surveillance environment. The Power-Thru Balun may be used in pairs or in conjunction with standard twisted pair crossconnect devices and other MuxLab CCTV baluns such as the 500000, 500009, 500023 and 500015.

Key Features	
	Combines video and remote power under one 4-pair Cat5e/6 cable for more efficient cabling
	Video up to 2,200 ft (670m) via Cat5e/6 UTP*
	Remote power up to 500ft (170m) @ 24VAC/5VA via three (3) twisted pairs

Shorter distances may be achieved when used with DVRs.

Passive CCTV Hub

The Passive CCTV Hub allows video, remote power and PTZ control to be transmitted via one 4 pair Cat5e/6 cable, thus eliminating the need to install multiple cables for more efficient cabling in the security video environment. There are two 16-port models: 500130; for coax video output and 500131; for twisted pair video output. The Passive CCTV Hub works in conjunction with the 500022, 500024, 500029, 500000, 500009, 500023 and 500015.

Key Features	
	Port switch to set Power-Thru or Pass-Thru mode
	Pin configuration table on unit
	Space efficient, rackmountable

LongReach™ II
Active CCTV Receiver Balun

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.

Key Features	
	Automatic Image Adjustment (patent pending)
	Up to 5,000 ft (1.5 km) via Cat5e/6 with passive balun at camera
	Up to 7,000 ft (2.1 km) via Cat5e/6 with active balun at camera
	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)

LongReach™ II
Active CCTV Receiver Hub, 8 Ports
Active CCTV Receiver Hub, 16 Ports

Part # 500126, 500127

The LongReach II Active CCTV Receiver Hub (500126 [8p], 500127 [16p]) provides extended distance between the CCTV camera and the DVR via Cat5e/6 cable. The hub 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 Hub 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.

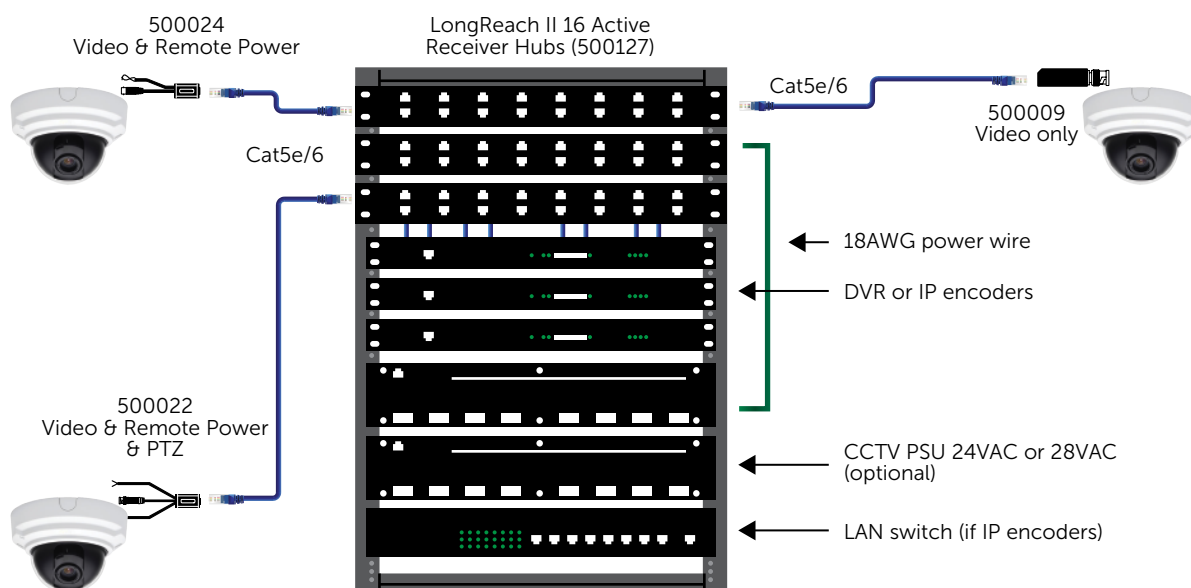| Key Features	
	8 (500126) or 16 (500127) channel analog CCTV hub
	Up to 5,000 feet (1.5 km) via Cat5e/6
	Up to 7,000 feet (2.1 km) via Cat5e/6 with 500100/101 at camera
	Video, power and PTZ over one Cat5e/6
	Auto Gain Control (AGC)
	Auto Polarity Correction
	Ground Loop Isolation (GLI)
	LED diagnostics

Typical Application 500127

500024
Video & Remote Power

LongReach II 16 Active
Receiver Hubs (500127)

Cat5e/6

500009
Video only

Cat5e/6

18AWG power wire

DVR or IP encoders

500022
Video & Remote Power
& PTZ

CCTV PSU 24VAC or 28VAC
(optional)

LAN switch (if IP encoders)

More Analog CCTV Baluns & Hubs

Part # 500007

PTZ Balun

Part # 500031

CCTV Modular Balun, RCA

Part # 500015

LongReach™

Part # 500022

CCTV Pass-Thru Balun

Part # 500024-CNV

CCTV Power-Thru Converter Balun

Part # 500029

CCTV Power-Thru Balun

Part # 500037

Quad Video Balun, BNC

Part # 500100, 500101

Active CCTV Transmitter Balun

Part # 500120, 500121

LongReach™ 16 Active CCTV Receiver Hub, UTP-UTP

Part # 500122, 50123

LongReach™ 16 Active CCTV Receiver Hub, UTP-CX

Can You Afford Surveillance Downtime?

Accessories

Part # 500900

Rackmount Balun Chassis 16

Part # 500902

Rackmount Balun Chassis 6

Part # 500905

3 Port Rackmount Transceiver Chassis

Part # 500906

16 Port Rackmount Transceiver Chassis

Part # 500907

Filler module kit for 500906/909 (4)

Part # 500908

Bracket kit for models 500906/909 (4)

Part # 500909

16 Port Rackmount Powered Transceiver Chassis

Part # 500910

Surface Mount Balun Plate

Part # 500915

Wall Mount Balun Fixture

Part # 500916

Surface Mount Transceiver Plate

CCTV PART NUMBER
Reference Guide

Part #	Description
500000, 500031	CCTV MODULAR BALUN, BNC / CCTV MODULAR BALUN, RCA
500007	PTZ BALU
500009, 500009-2PK	CCTV SCREW TERMINAL BALUN
500015	LONGREACH™
500022	CCTV PASS-THRU BALUN
500023, 500023-2PK	CCTV MINI BALUN
500024, 500029	CCTV POWER-THRU BALUN
500024-CNV	CCTV POWER-THRU CONVERTER BALUN
500037	QUAD VIDEO BALUN, BNC
500100 / 500101	ACTIVE CCTV TRANSMITTER BALUN
500111, 500111-2PK	CCTV IP POE EXTENDER
500112	LONGREACH CCTV IP POE EXTENDER KIT
500112-30W	LONGREACH CCTV IP POE EXTENDER KIT, 30W
500113	POWER SUPPLY FOR MODEL 500112 (48VDC)
500114	LONGREACH CCTV IP POE EXTENDER KIT, 1KM
500120, 500121	LONGREACH™ 16 ACTIVE CCTV RECEIVER HUB, UTP-UTP
500122, 500123	LONGREACH™ 16 ACTIVE CCTV RECEIVER HUB, UTP-CX
500124	LONGREACH II ACTIVE CCTV RECEIVER BALUN
500126	LONGREACH II ACTIVE CCTV RECEIVER HUB, 8P
500127	LONGREACH II ACTIVE CCTV RECEIVER HUB, 16P
500130	PASSIVE CCTV HUB
500132	CCTV PASS-THRU/GLI BALUN
500133	PASSIVE CCTV HUB/GLI BALUN
500134	PASSIVE CCTV HUB PLUS
500136-US, 500136-UK	PASSIVE CCTV POWER INTEGRATOR HUB
500136-EUR	CCTV POWER INTEGRATOR HUB, 24VAC
500701, 500701-2PK	HD-SDI BALUN
500720	HD CCTV PASS-THRU BALUN
500720-CL	HD CCTV PASS-THRU BALUN WITH CABLE LEADS
500721	ACTIVE HD CCTV RECEIVER BALUN

MuxLab: The Only Brand For All Your CCTV Connectivity Needs.

IP over Coax

HD-SDI

ANALOG

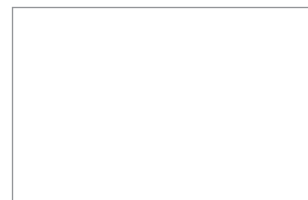# The Leader in CCTV Connectivity Solutions

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