Specifications

Environment	SDI, HD-SDI & 3G-SDI
Devices	SDI equipment
Transmission	Transparent to the user
Insertion Loss Per Balun	<6 dB: 5 – 1500 MHz
Connector	BNC connector – male
RJ45 Pin Configuration	Female RJ45 Pins 7&8
Typical maximum distance	SD: Up to 110m (375ft) using Cat 5 UTP , up to 120m (400ft) for CAT 5E UTP, up to 150m (500ft) for CAT 6 UTP . HD: Up to 30m (100ft) using Cat 5 UTP , up to 45m (150ft) for CAT 5E or 6 UTP . 3G: Up to 15m (50ft) for CAT 6 UTP only. Note: Maximum distance is function of the receiving equipment equalizer. Dedicated Cat5e/6 cables are recommended. Patch panels, patch cables and wallplate interconnect are not recommended.
Temperature	Operating: -20° to 50°C. Storage: -30° to 70°C.
Enclosure	Cast Aluminum
Humidity	Maximum 95% (non-condensing)
Dimensions	0.8" x 1.85" x 1.05" (2 x 2.6 x 4.7 cm) L x H x W + extended BNC connector.
Weight	1.5 oz (44 g)
Warranty	Lifetime
Order Information	500701 HD-SDI Balun

HD-SDI Balun

500701

Quick Installation Guide

Overview

The HD-SDI Balun (500701) allows one HD-SDI signal to be transmitted up to 150 ft (45m) via Cat5e cable at HD resolution (720p, 1080i) 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. Two identical balun are required.

Applications

Video production, broadcasting, HD camcorder, studio-to-studio, post-production, live events, medical imaging displays, mobile video, HD/SD routing, HD-CCTV, medical imaging.

Installation

1. One (1) pair of HD-SDI Baluns is needed to complete one connection via UTP cable. To install the HD-SDI Balun, perform the following steps:

Caution: Do not attempt to open the housing. There are no user-serviceable parts inside the HD-SDI Balun. Opening the unit will void your warranty.

1. Turn off power and disconnect the HD-SDI video source and HD-SDI video receiver.

Caution: Do not connect the HD-SDI Balun to a telecommunication outlet wired to unrelated equipment. Making such a connection may damage the equipment and/or the balun. Please ensure that all wiring is "straight-through" twisted pair.

2. Verify that the desired twisted pairs are not being used for other LAN or telephone equipment.

3. The HD-SDI Baluns operate in pairs.

4. Connect the HD-SDI Balun (500701) to the HD-SDI video port of the source equipment (*i.e.*, HD camcorder or HD-CCTV camera).

5. Connect a dedicated 4-pair Cat5e/6 cable between the source-side HD-SDI Balun and the receiver-side HD-SDI Balun.

6. At the destination point, connect the HD-SDI Balun to the HD-SDI receiver (i.e. monitor or DVR).

7. Power on the HD-SDI video equipment at both ends and adjust the monitor image and audio levels to the desired settings.

8. The following diagrams show a couple of typical configurations.
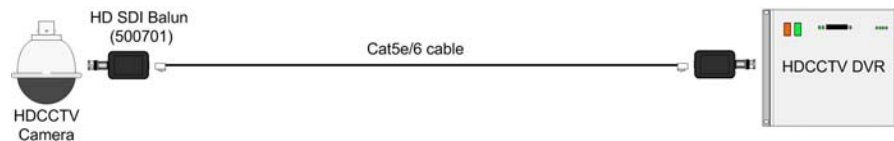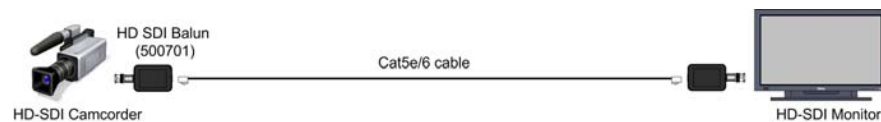
Troubleshooting

The following tables describe some of the symptoms, probable causes and possible solutions regarding the HD-SDI Balun:

Video Symptom	Probable Cause	Possible Solutions
No video	No continuity in video link	Verify cable continuity between pairs of baluns.
	Power off	Check power supplies of video equipment.
	Improper connection and/or swapped pair	Check that baluns are connected to correct video inputs and outputs.
Part of picture missing or intermittent. Missing frame or freezing.	Exceeded distance	Verify cable length and grade. Use higher-grade cable if necessary.
	Unusual link attenuation	Verify cable distance using a cable tester.
	EMI interference	Try turning off (or move) nearby wireless LANs, switching power supplies, radio transmission to see if problem disappear.
Image not stable, noise, incorrect color or sound.	Defective source or receiving equipment	Try swapping source/monitor equipment or verify video equipment interface integrity.

If you still can not diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).