MuxLab

CATV Balun
(500006)

Frequently Asked Questions (FAQ)

1. **What is the bandwidth limitation of the CATV Balun?** The CATV Balun has a bandwidth limitation of 550 MHz, which corresponds to North American CATV channel 77.

2. **Which pins of the CATV Balun carry the signal?** Pins 7&8 of the RJ45 carry the signal. The pin numbering is from left to right looking into the jack with the tab down.

3. **Does the CATV Balun support digital cable?** Yes, providing the digital cable channels are modulated onto channel frequencies that are within the 550 MHz bandwidth of the CATV Balun.

4. **How do I know whether distance has been exceeded?** Some of the channels display a snowy image, indicating insufficient signal power. In this case, it may be necessary to insert an RF amplifier ahead of the CATV Balun in order to boost the signal at the receiver.

5. **Can the CATV Balun be used to allow the coax cable between a satellite dish and satellite receiver be replaced by Cat5 UTP?** No. The bandwidth of the balun and the Cat5 are insufficient to support RF video transmission in the satellite frequency range. Satellite dish signals are typically in the gigahertz range.

6. **Will doubling up the twisted pairs improve performance?** No. In regard to the CATV Balun and based on testing by MuxLab's R&D dept, there is performance degradation if the twisted pairs are doubled up. In the lab, it was found that there was 55% more signal loss versus no doubling. The lower performance is mainly due to impedance mismatch since the doubled twisted pairs present a 50-ohm impedance to the balun instead of 100 ohms. The test was performed using a 200 ft length of Category 5e UTP cable and a second Cat5e cable with pins 7&8 "doubled up". The result was approximately 6.8 dB (55%) more signal loss than if there was no doubling-up. Consequently it is not recommended to double-up twisted pairs when using the CATV Balun in the RF environment.

For more information, please contact MuxLab Customer Technical Support at 877-689-5228 (North America) or +1 514-905-0588 or at videoease@muxlab.com or visit http://www.muxlab.com/.