

**Overview**

The CATV Balun II (500302) allows traditional 75-ohm coaxial cable to be replaced by a single pair of Cat 5 UTP cable in the CATV, VHF and FM environments in certain applications. Used in pairs, the CATV Balun II allows broadband CATV equipment to be integrated into structured cabling systems thereby allowing CATV equipment to be moved or added to any convenient modular wall outlet.

The CATV Balun II provides a versatile cabling solution for broadband video systems used by schools, government, offices, hospitals, financial institutions, hotels and residential complexes. The CATV Balun II works in conjunction with RF splitters, combiners, amplifiers and cable modems for a total cabling solution.


**Benefits**

- Supports broadband Internet and digital cable
- Eliminate costly coaxial cable
- Quicker moves, adds and changes
- Neater wiring

**Features**

- High bandwidth – up to 900 MHz
- Low insertion loss
- Compact design

Specifications					
<b>Environment:</b>	Private and public broadband CATV, VHF and FM networks.				
<b>Devices:</b>	Terrestrial CATV, local channel amplified antennas, DVD players, RF modulators, splitters, cable modems and other broadband video equipment. <i>Does not support satellite dish RF.</i>				
<b>Transmission:</b>	Transparent to the user				
<b>3dB bandwidth:</b>	5 MHz to 900 MHz.				
<b>Video Channels Supported:</b>	CATV 2-142, VHF channels 2-13, FM broadcast band.				
<b>Insertion Loss Per Pair:</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><math>&lt; 10</math> dB: 5 – 10 MHz</td> <td style="width: 50%;"><math>&lt; 3</math> dB: 10 – 600 MHz</td> </tr> <tr> <td><math>&lt; 4</math> dB: 600 – 725 MHz</td> <td><math>&lt; 3</math> dB: 725 – 900 MHz</td> </tr> </table>	$< 10$ dB: 5 – 10 MHz	$< 3$ dB: 10 – 600 MHz	$< 4$ dB: 600 – 725 MHz	$< 3$ dB: 725 – 900 MHz
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<b>Return Loss:</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><math>&gt; 10</math> dB: 15 – 370 MHz</td> <td style="width: 50%;"><math>&gt; 7</math> dB: 370 – 770 MHz</td> </tr> <tr> <td><math>&gt; 10</math> dB: 770 – 900 MHz</td> <td></td> </tr> </table>	$> 10$ dB: 15 – 370 MHz	$> 7$ dB: 370 – 770 MHz	$> 10$ dB: 770 – 900 MHz	
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<b>Common Mode Rejection (CMMR):</b>	-20dB or higher at 5 MHz to 900 MHz.				
<b>Cable – Cat5e/6 UTP:</b>	24-AWG or lower solid copper twisted pair. Impedance: 100-120-ohms				
<b>Cable – Coax:</b>	Impedance: 75-ohms at 1MHz (RG6)				
<b>Connector – Input:</b>	“F” connector – male				
<b>Connector - Output:</b>	RJ45 – female				
<b>RJ45 Pin Configuration:</b>	RJ45 Pins 7&8.				
<b>Maximum distance:</b>	Up to 100m (330ft) via Cat 5 UTP depending on channel frequency and input power. Maximum 100m at CATV Channel 2. May require tilt amplifiers at higher frequencies.				
<b>Temperature:</b>	Operating: 0° to 40°C. Storage: -10° to 70°C.				
<b>Enclosure:</b>	ABS.				
<b>Humidity:</b>	Maximum 95% (non-condensing)				
<b>Dimensions:</b>	2.5" x 1" diameter (6.35 x 2.54 cm diameter)				
<b>Weight</b>	1.05 oz (30 gms)				
<b>Regulatory Approval:</b>	FCC Part 15 Class A, CE				
<b>Warranty:</b>	Lifetime				
<b>Order Information</b>	500302 CATV Balun II				

### Typical Application:

In a point-to-point scenario for CATV (superband and hyperband), VHF and FM, cable lengths of up to 50 meters may be achieved without amplification if the nominal input is about 15dB. In some applications, a "tilt" amplifier may be required since the UTP losses are higher than coax at the higher frequencies. Linear gain compensation of up to 20-25dB at 750MHz is usually adequate. Conversely, if amplification is used to compensate for losses at higher frequencies and long distances, it may be necessary to attenuate the lower frequency, shorter distance signals to avoid over-driving the TV monitors.

