

### Overview

The Component Video/IR Pass-Thru Balun (500054, 500055) allows one component video (YPbPr or RGB) signal and one IR emitter signal to be transmitted via one Category 5E/6 twisted pair cable for more cost-efficient cabling.

Used in pairs, the Component Video/IR Pass-Thru Balun supports 480i/p, 720p and 1080i/p video formats for commercial and residential hi-definition (HDTV) video applications.

### Benefits

More cost efficient cabling  
 Quicker moves, adds and changes  
 Neater wiring



### Features

Supports 480i/p, 720p, 1080i/p  
 Supports 480i/p up to 1,000 ft (305m) via Cat5E/6  
 Supports 720p/1080i/p up to 500 ft (152m) via Cat5E/6  
 Moulded colour-coded RCA cable leads  
 Supports IR-emitter pass-thru on fourth twisted pair  
 Modular shielded RJ45 connector

Specifications	
<b>Environment</b>	Component Video (YPbPr), RGB Video (sync on green). 480i/p, 720p, 1080i/p. IR emitter pass-thru.
<b>Devices</b>	DVD players, satellite receivers, plasma displays, projectors, monitors, up-converters, amplifiers, switchers, home theatre and other equipment supporting HDTV component video and IR control.
<b>Transmission</b>	Transparent to the user.
<b>Bandwidth</b>	Video: 60 MHz, 3 dB roll off.
<b>Maximum Input</b>	1.1Vp-p
<b>Insertion Loss per pair</b>	.1 dB for 0.1 MHz. Gradually increasing to 3.0 dB over the frequency range
<b>Return Loss</b>	Greater than 15 dB over the frequency range
<b>Common Mode Rejection</b>	-55 dB max.
<b>Max. Distance Colour – Cat5E/6 UTP &amp; STP</b>	480i/p: 1,000 ft (305m). 720p and 1080i: 500 ft (152m). IR: Please refer to IR vendor specifications.
<b>Cable – Cat5E/6 UTP/STP</b>	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
<b>Cable – Coax</b>	Impedance: 75 ohms at 1 MHz
<b>Connectors</b>	500054: Three (3) RCA-M connectors: Green (Y), Blue (Pb), Red (Pr) 500055: Three (3) gold-plated RCA-F connectors: Green (Y), Blue (Pb), Red (Pr) One (1) 2-pole terminal block for IR emitter pass-through RJ45S for twisted pair
<b>Pin Configuration</b> <i>Reverse polarity sensitive</i>	Red (Pr): Pins 7 [R] & 8 [T]      Green (Y): Pins 3 [R] & 6 [T] Blue (Pb): Pins 1 [R] & 2 [T]      IR Pass-Thru: Pins 4 [R] & 5 [T]
<b>Temperature</b>	Operating: 0° to 55°C. Storage: -20° to 85°C. Humidity: up to 95%
<b>Enclosure</b>	ABS fire retardant plastic
<b>Dimensions</b>	500054: plus 6" (15.24cm) cable lead for video. 500055: 2.40" x 2.25" x 1.0" (6.1 x 5.7 x 2.54 cm)
<b>Weight</b>	2.9 oz (81gms)
<b>Regulatory</b>	FCC, CE, RoHS.
<b>Warranty</b>	Lifetime
<b>Order Information</b>	500054      Component Video/IR-Pass-Thru Balun, M 500055      Component Video/IR-Pass-Thru Balun, F

# Component Video/IR Pass-Thru Balun 500054, 500055

## Typical Application



### Head Office

8495 Dalton Road, Mount Royal, Quebec, Canada, H4T 1V5

Tel: 514-905-0588 Fax: 514-905-0589

Toll-free: 877-689-5228

E-mail: [videoease@muxlab.com](mailto:videoease@muxlab.com)

URL: [www.muxlab.com](http://www.muxlab.com)