

### Overview

The Component Video/Digital Audio Balun (500050, 500051) allows one component video (YPbPr or RGB) signal and one Digital Audio signal to be transmitted via one Category 5E/6 twisted pair cable for more cost-efficient cabling.

Used in pairs, the Component Video/Digital Audio 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



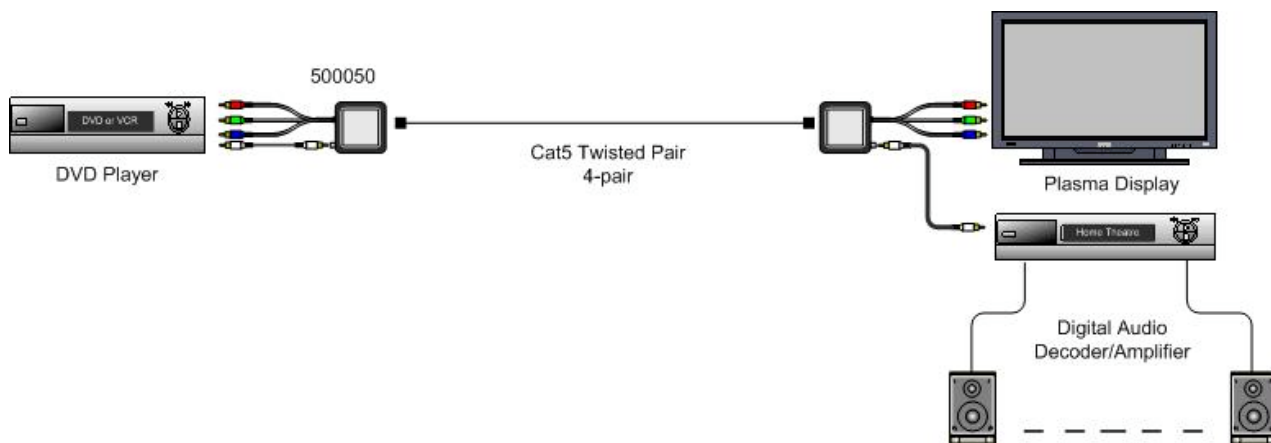
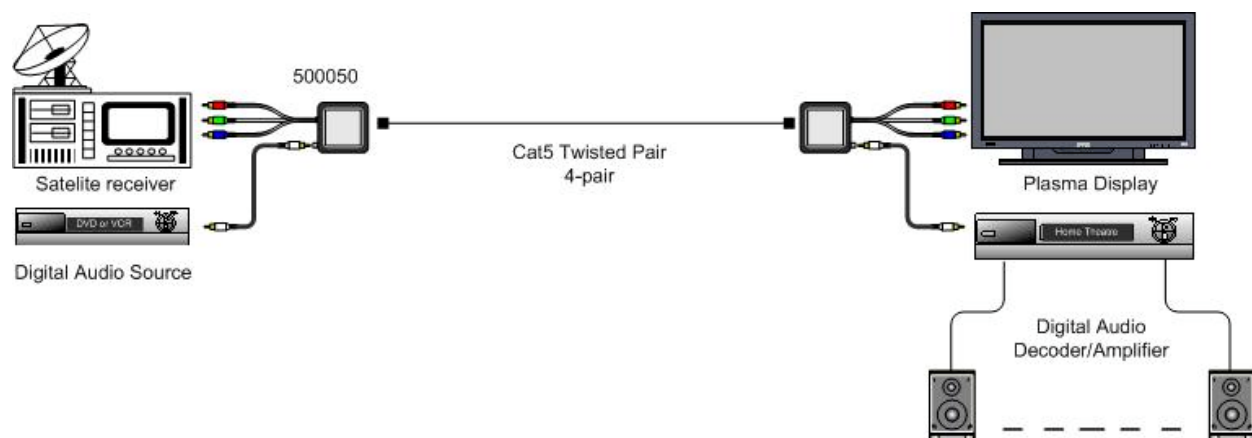
### Features

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/6E/6  
Moulded colour-coded RCA cable leads  
Supports digital audio 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.                                                                                                                                                   |
| <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/or digital audio (Dolby Digital™, dts™). |
| <b>Transmission</b>                                           | Transparent to the user.                                                                                                                                                                                                     |
| <b>Bandwidth</b>                                              | Video: 60 MHz, 3 dB roll off<br>Digital audio: 25 MHz, 1dB roll off                                                                                                                                                          |
| <b>Maximum Input</b>                                          | 1.1Vp-p                                                                                                                                                                                                                      |
| <b>Insertion Loss per pair (video)</b>                        | .1 dB for 0.1 MHz. Gradually increasing to 3.0 dB over the frequency range                                                                                                                                                   |
| <b>Insertion Loss per pair (audio)</b>                        | Less than 1 dB over the frequency range                                                                                                                                                                                      |
| <b>Return Loss (video)</b>                                    | Greater than 15 dB over the frequency range                                                                                                                                                                                  |
| <b>Return Loss (audio)</b>                                    | Greater than 15 dB over the frequency range                                                                                                                                                                                  |
| <b>Common Mode Rejection (video)</b>                          | -55 dB max.                                                                                                                                                                                                                  |
| <b>Common Mode Rejection (audio)</b>                          | -55 dB max.                                                                                                                                                                                                                  |
| <b>Max. Distance Colour – Cat5E/6 UTP &amp; STP</b>           | 480i/p: 1,000 ft (305m).<br>720p and 1080i/p: 500 ft (152m).<br>Digital Audio: 600 ft (182m). Compatible with 500020.                                                                                                        |
| <b>Cable – Cat5E/6 UTP/STP</b>                                | 24 gauge or lower solid copper twisted pair wire impedance: 100 ohms at 1 MHz<br>Maximum capacitance: 20 pF/foot.<br>Attenuation: 6.6 dB/1000 ft at 1 MHz                                                                    |
| <b>Cable – Coax</b>                                           | Impedance: 75 ohms at 1 MHz                                                                                                                                                                                                  |
| <b>Connectors</b>                                             | 500050: Three (3) RCA-M connectors: Green (Y), Blue (Pb), Red (Pr)<br>500051: Three (3) gold-plated RCA-F connectors: Green (Y), Blue (Pb), Red (Pr)<br>One (1) RCA-F connector for digital audio<br>RJ45S for twisted pair  |
| <b>Pin Configuration</b><br><i>Reverse polarity sensitive</i> | Red (Pr): Pins 7 [R] & 8 [T]<br>Green (Y): Pins 3 [R] & 6 [T]<br>Blue (Pb): Pins 1 [R] & 2 [T]<br>Digital Audio: 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>                                             | 2.40" x 2.25" x 1.0" (6.1 x 5.7 x 2.54 cm)<br>500050: plus 6" (15.24cm) cable lead for video.                                                                                                                                |
| <b>Weight</b>                                                 | 2.9 oz (81gms)                                                                                                                                                                                                               |
| <b>Regulatory</b>                                             | FCC, CE, RoHS.                                                                                                                                                                                                               |
| <b>Warranty</b>                                               | Lifetime                                                                                                                                                                                                                     |
| <b>Order Information</b>                                      | 500050 Component Video/Digital Audio Balun, M<br>500051 Component Video/Digital Audio Balun, F                                                                                                                               |

# Component Video/Digital Audio Balun 500050, 500051

## Typical Application



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