

## Overview

The VGA Balun II eliminates costly and bulky VGA cable, allowing a VGA source to be connected to a VGA monitor via one (1) 4-pair Cat5E/6 unshielded twisted pair (UTP) cable. Used in pairs, the VGA Balun II allows VGA video to be transmitted up to 350ft (107m) via Cat5E/6 at 800 x 600 resolution.

Each VGA connection requires p/n 500040 or 500043 at the source and either p/n 500041 or 500042 at the display. The VGA Balun II works in conjunction with laptops, PCs, plasmas, CRT, LCD monitors and DLP projectors.

Typical applications include digital signage, boardroom systems, classroom video instruction and custom audio-video systems. The product features a "reset" button that may be required when used in conjunction with certain sync-sensitive displays.



## Features & Benefits

- Fully supports Cat5E/6 unshielded twisted pair (UTP)\*
- Cost efficient versus VGA cable
- Use existing structured cabling system
- Save conduit space

\* Reset button on units may be required with certain sync-sensitive displays. Not compatible with 500010, 500011 and 500014. Does not support DDC handshaking.

Specifications	
<b>Environment</b>	VGA, VESA VP&D 1.0, VIP ver 2.0.
<b>Devices</b>	CRT & LCD monitors, plasma screens, PCs, laptops and multimedia projectors.
<b>Transmission</b>	Transparent to the user.
<b>Bandwidth</b>	DC to 60MHz
<b>Input Signals</b>	Video: 1.1Vp-p Horizontal sync: TTL standard. 300kHz max. bandwidth Vertical sync: TTL standard. 300kHz max. bandwidth
<b>Insertion Loss</b>	Less than 3 dB per pair over the frequency range.
<b>Common Mode Rejection (CMRR)</b>	15kHz -60dB typ. 100kHz to 10MHz -40dB typ. 200MHz -20dB typ.
<b>Return Loss</b>	-15dB max from DC to 60MHz
<b>Connectors</b>	500040/500042: HD15 Plug, RJ45S      500041/500043: HD15 Receptacle, RJ45S
<b>Max. Distance via Cat5E/6 Twisted Pair</b>	VGA: 640x480 pixels (15MHz)      450ft (137m) SVGA: 800x600 pixels (30MHz)      350ft (107m) XGA: 1024x768 pixels (60MHz)      250ft (76m) SXGA: 1280x1024 pixels (100MHz)      200ft (61m) WXGA: 1366x768 pixels      180ft (55m)
<b>RJ45 Pin Configuration</b> <i>EIA 568 (A or B)</i> <i>Reverse Polarity Sensitive</i>	Pin 1 (R)    Pin 2 (T)    Balanced - Red Pin 4 (R)    Pin 5 (T)    Balanced - Green Pin 7 (T)    Pin 8 (R)    Unbalanced - Blue (7 - Signal, 8 - Ground) Pin 3 (R)    Pin 6 (T)    Unbalanced - H & V Sync
<b>Compatibility</b>	Not compatible with 500010, 500011, 500014, 500035/36, 500140 Does not support VGA handshaking (DDC) signals.
<b>Reset button</b>	May be required when used with sync-sensitive displays.
<b>Grounding screw</b>	Grounding screw for optional use.
<b>Cable</b>	Cat5E/6 or better unshielded twisted pair (UTP) The VGA Balun II does not support VGA handshaking and control signals. Therefore it is necessary to set the monitor attributes prior to installing the VGA baluns. In order to do this, first connect the standard VGA cable directly from the PC to the monitor and then set the monitor attributes to the required settings ( <i>i.e.</i> , resolution, color, etc.). Also, in order to achieve optimum results via twisted pair, set the contrast and brightness levels to maximum.
<b>Impedance</b>	Input: RGB 75 ohms (HD15) Unbalanced    Output: RGB 100 ohms (RJ45 shielded) Balanced Horizontal and vertical sync: Balanced
<b>Temperature</b>	Operating: 0° to 55° C.    Storage: -20° to 85° C.    Humidity: up to 95% non-cond.
<b>Enclosure</b>	ABS fire retardant plastic
<b>Dimensions</b>	2.4" x 2.25 x 1.0" (6.1 x 5.7 x 2.54 cm).    Plus 6" (15.2cm) lead on 500040/42
<b>Weight</b>	500041/500043: 2.34 oz (66 gms).    500040/500042: 3.87 oz (110 gms)
<b>Mounting</b>	Free-standing.    Separate Velcro mounting pad included
<b>Warranty</b>	Lifetime
<b>Order Information</b>	500040 VGA Balun II, HD15 HD Plug, PC Side 500043 VGA Balun II, HD15 HD Receptacle, PC Side 500041 VGA Balun II, HD15 HD Receptacle, Monitor Side 500042 VGA Balun II, HD15 HD Plug, Monitor Side

**Typical Applications**

