MuxLab

VGA Balun
(500010, 500011, 500014)

Frequently Asked Questions (FAQ)

1. **Why does the VGA Balun not require power, whereas other VGA over Cat5 solutions do?** The VGA Balun simply converts the VGA video signal from an unbalanced signal to a balanced one using passive transformer components. Active VGA over Cat5 devices generally support higher resolutions and longer cable lengths because they have active circuitry that provides signal gain compensation.

2. **What is the bandwidth limitation of the VGA Balun?** The VGA Balun has a bandwidth of 60 MHz. Due to the gradual roll-off of the frequency response, resolutions as high as 1280 x 1024 are supported at shorter cable lengths.

3. **Why is shielded twisted pair (STP) recommended for use with the VGA Balun?** STP is recommended for use with the VGA Balun because a common signal ground is needed between the baluns in order to transmit the synchronization signals properly. If there is a slight difference in signal ground between the baluns, the display may not be able to decode the synchronization portion of the signal thereby causing intermittent problems.

4. **Is the 500010 electrically different from the 500011 and 500014?** Yes there is an electrical difference between the models. The 500010 is designed to be connected to the VGA source. The 500011 and 500014 are designed to be connected to the VGA display.

5. **Where can I find shielded Cat5 cable?** Anixter carries it. Belden 1730A Cat5E STP solid. Anixter p/n CM-00424FTPD-5B-06

6. **Where can I find a shielded RJ45 plug for solid copper twisted pair?** Anixter carries one. Anixter's part number is: **214944**. The Tyco/Amp part number is: **5-569550-3**.

7. **Where can I find a shielded RJ45 jack?** Tyco makes them. The Tyco part numbers are: 1116515-1 and 1339015-1.

8. **What is the differences between VGA cable and Cat5 cable?** Cat5 STP has lower attenuation than VGA cable due to the transmission properties of coaxial cable. Cat5 and VGA Baluns provide approx. the same common mode noise rejection (crosstalk immunity) as coaxial cable due to balanced transmission. At very short distances (< 25 ft), the signal loss due to Cat5 and VGA Baluns may be greater than VGA cable due to the specified insertion loss of the balun pair and the cable. However, at long distances (>400ft) the signal loss is less than coaxial cable thus allowing UTP cable to support extended distance.

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/.

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