

Picture Problems when setting up VGA Balun's

During the installation of the VGA Balun various picture problems may result. It is important to know what is causing these problems and how to correct them.

Total or Intermittent Loss of Image

This problem is almost always due to loss of synchronization due to improper grounding and manifests itself by an intermittent flashing display or total loss of image. This will occur if UTP is used with VGA equipment that does not have a built-in 3-prong power plug. The solution is to replace the UTP by Cat 5 STP and terminate both ends with shielded RJ45 modular plugs.

Smearing

Smearing occurs when the edge of an image leaves trail traces similar to smudging a line of ink on a piece of paper. This may occur as the length of twisted pair cable increases. As the maximum distance specification is neared, the physical properties of the cable and balun's begin to show this effect. This is due to the effects of propagation delay and attenuation. Aside from using an active device with built-in tilt-amplifier to correct the problem, the other possible solutions are; a) to shorten the length of cable or b) adjust the contrast and brightness of the monitor.

Flutter

Flutter occurs when the background fluctuates between light and dark. This symptom may be due to problems with the grounding between the VGA equipment or the connection may be picking up some external interference from a nearby power transformer. A solution to minimize this effect is to adjust the monitor's contrast and brightness

Ghosting

Ghosting is characterized by a second video image being received after the main image, resulting in a double image that is skewed in relation to the first. This is usually due to a problem with the UTP cable connection itself. Poor crimping, untwisted pairs, some of the twisted pairs may be longer than others, poor quality cable, or impedance mismatch between the CPU and the monitor are all some of the causes. In these cases it is best to replace the existing cable with a new one.

Wrong Colours

If the wrong colours appear in an image (i.e. blue appears where green should appear), the problem may be due to swapped or split twisted pairs. The key is to verify the pin configuration of the cable between the CPU and the monitor to ensure that the correct pin configuration is respected. Please refer to the Installation Guide for further details about pin configuration.

Loss of Image Detail

Loss of image detail may occur as the length of twisted pair cable increases. As the maximum distance specification is neared, the physical properties of the cable and balun's will begin to show this effect. This is due to the effects of propagation delay and attenuation. Other than using an active device with built-in tilt-amplifier, one can improve the image by shortening the length of twisted pair or reducing the picture resolution. If the application operates adequately at a lower resolution (i.e. 800x600 instead of 1024x768), then setting the monitor to a lower resolution will help improve the image. Another way to improve the image is to adjust the contrast and brightness of the monitor.

Loss of Image with LCD Projectors

If there is a loss of image or image detail when a PC is connected to an LCD projector, it is possible that the screen resolution is been set too high. Try to lower the resolution to 800x600 and try again. Position the mouse on the Desktop and right-click. Select "Properties". Select the tab marked "Settings" and adjust the "Display Area" to 800x600. Click on "Apply" and then "OK". Return to the original application and check the image on the projector.