

## Tech Info Library

## Side-by-Side Monitors Can Interfere with each Other

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TOPIC -----

I have a customer who bought an Apple RGB monitor and an Apple Two-Page Monochrome monitor to sit side-by-side. The monitors interfere with each other, so badly that I'm ready to send each of them back and buy third-party products. Anyway, what can be done to have both those monitors side-by-side without any screen warping?

DISCUSSION -----

We found the following in the Technical Information Library using "monitor and interference" as a search string:

Apple Two-Page Monochrome Monitor: Images Vibrate

Interference between two monitors placed side-by-side can cause images on the monitors to vibrate. The reason is that, when placed side-by-side, monitors can magnetically interfere with each other, causing the image on one or both monitors to appear to vibrate slightly. This interference problem is most often seen when an RGB color monitor is placed next to a large-screen monochrome monitor. The amount of interference can also vary depending on the user's environment.

Moving the monitors further apart, especially the rear ends, usually reduces the vibration effect.

Technical Reason For Picture Vibrating

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The cause of this shimmering effect lies in the vertical refresh rate, the number of times a monitor repaints the screen each second. When this rate differs significantly between monitors, the interference described above can occur. There is often a large difference between RGB and monochrome monitors. Thus, the vibration effect most often occurs with this combination. Because

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other factors are involved, it is possible for two monitors with the same refresh rate to exhibit this effect, although this is less frequent.

Shielding monitors so as to prevent this type of interference would add a great deal to the cost of each monitor. Further, by shielding a monitor you can prevent the monitor from interfering with other monitors, but other monitors could still interfere with it. Apple is investigating a number of technologies to prevent this interference in the future and plans to incorporate them as they become feasible.

We are sorry that we cannot solve your problem at this time, but you may see an improvement if:

- the orientation of the monitors is reversed
- the monitors are separated by 8-10 inches
- a metallic plane (foil-wrapped cardboard, for example) is placed between the monitors.

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