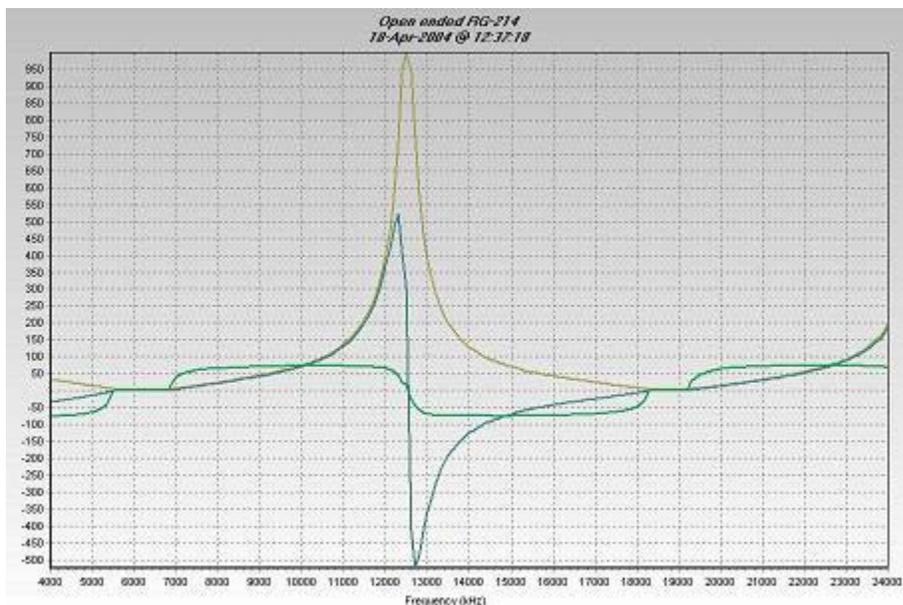
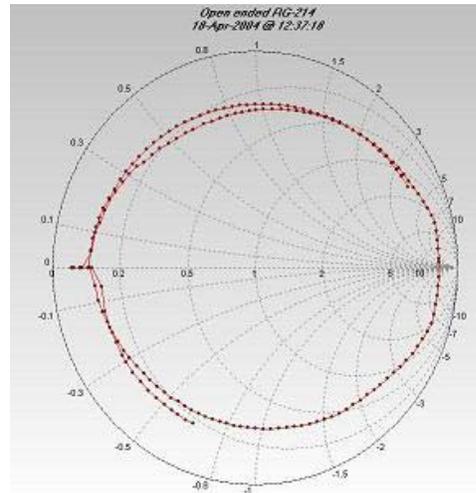


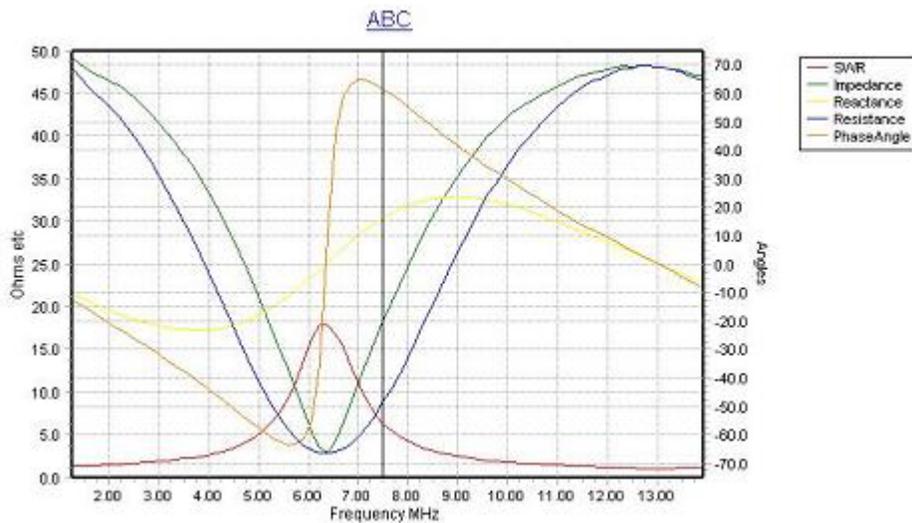
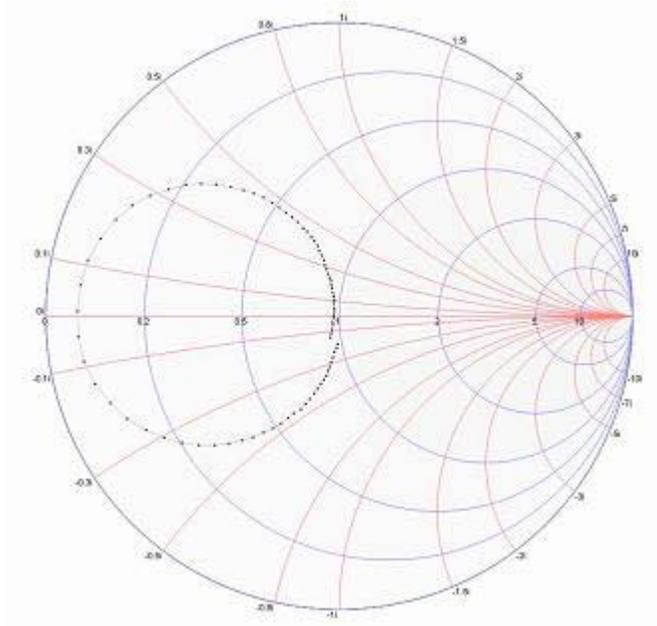
## VIA Analyzer vs. the VIA Bravo

The VIA analyzer is a hobby grade instrument that gives complex impedance readings for a budget price. It uses an SWR meter with an extra detector to derive the vector impedance values. While it does an adequate job for hobbyists, it falls a little short for most commercial application. There is a non linearity when the impedance angle approaches zero, which causes the plot to have a zero crossing distortion. Sample plots are shown here:



The anti-resonant readings are good, but the resonance readings have the distortion. The distortion shows up at 6 and 18 MHz, and on the left side of the Smith chart. If you want to make plots for the customer, the VIA Bravo is strongly recommended, as the zero crossing distortion of the VIA will cause your customers to ask too many questions.

The VIA Bravo on the other hand was designed from the start as a complex impedance meter. There is only one detector so no distortion gets created by the mismatch of multiple detectors. The readings at resonance are smooth and distortion free. See some examples here:



Other advantages of the VIA Bravo:

1. Open-Short-Load nulling of fixtures and cables.
2. Faster transfer of data to the PC.
3. Backlit display allows viewing in all lighting conditions.
4. Series (default) or parallel representation of R-L-C
5. Big number font
6. Video noise filter
7. Not restricted to 50 ohm operation