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## Menu

The extra features available in version 2 made it necessary to extend the menu structure.

You can cycle through the menu items by repeatedly pressing the function key. Each setting can then be changed by rotating the encoder. The instrument will return to its normal operation after 2 seconds of inactivity in menu mode.

The only setting that is not set from the menu is the frequency step size. Changing the step size is done much more quickly by pressing and holding the function key and turning the encoder.

```
Fr= 7.960 MHz
    120+j97Ω
    1.9μH s= 3.15
CIR PAR 9.2V
```

### CIR

The first menu item is CIRcuit; originally display mode. You can choose between SERIES equivalent circuit and PARallel equivalent circuit.

```
Fr= 7.960 MHz
    120+j97Ω
    1.9μH s= 3.15
AVG 16 9.2V
```

### AVG

In version 1 the number of averages was fixed. Now you can set it from 1 to 128 in a power of 2 sequence. Increasing the number of averages improves readout stability for high impedances.

```
Fr= 7.960 MHz
    47+j59Ω
    1.2μH s= 3.15
BKL 31% 9.2V
```

### BKL

Backlight intensity works basically the same as in V1, only the level is now displayed as a percentage.

```
Fr= 7.680 MHz S
    48+j48Ω
    .....
BAR Sbar 9.2V
```

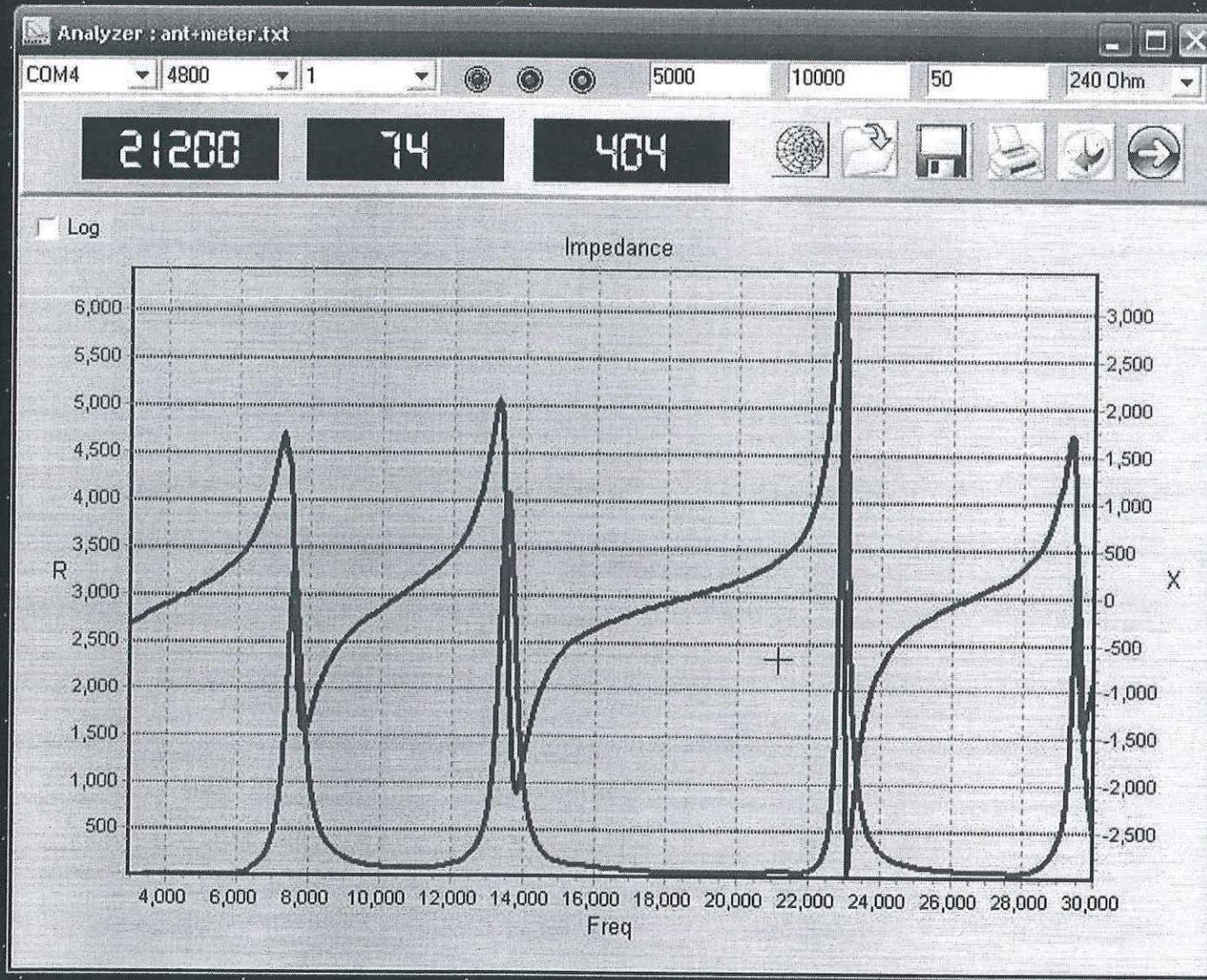
### BAR

This is a new feature. You can select the Bar display source : SWR, X or R or select OFF to return to the normal alpha numerical display. By pressing and holding the function key you can set the upper value of the Bar to the current measured value. So you can set the sensitivity of the display to any value you like.

```
Fr= 7.680 MHz S
    48+j48Ω
    .....
Z0 75Ω 9.2V
```

### Z0

In version 1 the SWR was calculated relative to a fixed characteristic impedance of 50Ω. In version 2 you can select the required value from the following set of standard values: 50Ω, 75Ω, 300Ω, 450Ω.



Smith

21200 MHz : SWR= 12.66 rln= 0.854

To support frequency scans and impedance plots

I wrote a Windows program that will control the analyzer and make graphs of the measured results. It features auto scaling, has a zoom function and will display multiple scans. The option to save and retrieve measurement data makes it easy to compare results with earlier measurements. Measurement data is stored in text format to make it possible to import data from another source or to use the data in Excel.

It also offers a separate Smith Chart window to display complex reflection coefficient data. Moving the cursor over the impedance plot will show the measurement results for each individual frequency point, both on the linear graph and Smith chart.

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