

Bode using CSim2.61

Description: this software allows you to plot Bode diagram of a circuit simulated using *Circuit Simulator 2.61* By *Per Stenius*

Written by: **Giuseppe Belfiore**

Date: august 2007

File name: BodeCsim.zip

This file contains following files:

- *Description.pdf*
- *Frer* (binary file) , **710** byte
- *Frer.txt* (text file) , **946** byte

Of course you need to load on HP48 only one of these files

How to use:

- Load *CSim2.61* in a directory of your HP calculator (download it from www.hpcalc.org)
- Load *frer* (using EMU48) in the same directory containing *CSim2.61*
- Enter a circuit description and press CST NEXT keys and SETUP
- Set NODE, OUTP (<< node GET ABS LOG 20 * >> for module; << node GET ARG 180 π / * >> for phase)
- Enter lower and upper decade (integral number)
- Enter number of points per decade to plot (for example 5,10,20)
- Press CST key and then FRER. After some minutes the Bode plot (frequency response of the circuit) appears.

Note: this software was tested on HP48GX and is written in USER RPL. Insert only integer number. Unlike the ac analysis of *CSim2.61*, this program allows you to see, at the first time, the frequency response without change PPAR and repeat calculation many times until PPAR is right. Further this program, using *acplot* of *CSim2.61*, save calculations in the Σ DAT matrix containing two columns: the first one contains $\log(2\pi f)$ and the second one contains *node*. This program calculates frequency response at $f=j*10^i$ where $j=1,2,...,9$ and $i=a,...,b$, from $f_{min}=10^a$ to $f_{max}=9*10^b$. Vertical tick spacing is fixed to 20dB and 20 degree.

Example: circuit description: notch filter

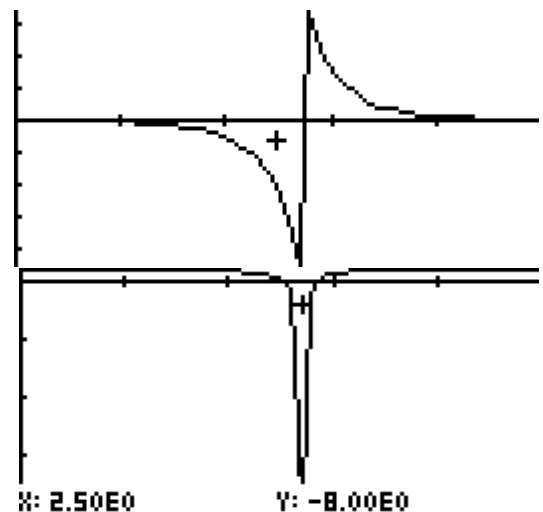
```
{ { E 6 0 1 7 } { R 4 6 31830 8 } { R 4 1
31830 9 } { C 5 6 .0000001 } { C 5 1
.0000001 } { R 5 0 15915 10 } { C 3 4
.0000002 } { R 2 3 560 13 } { R 2 0 1000 11
} { O 1 2 3 0 12 } }
node=3
outp=\<< node GET ABS LOG 20 * \>>
3: -1
2: 3
1: 10
```

I like electronics and I live in **Puntalazzo** a small village in **Sicily (Italy)** :

lat=37° 45' 13.32" N

long=15° 08' 37.32" E

height=579_m



I hope you will enjoy my program. Thanks you for using it. Excuse for my poor English, but Italian is my native language. If you find bugs send an e-mail to belfi.giuseppe@tiscali.it.

