

## filter\_butterworth\_5.gce

### Attributes

```
mainvars: x y
auxvars: y1 y2
rparms:
+ fltr1_b1=3.183e-3
+ fltr2_b1=1.967e-3
+ fltr2_b2=1.013e-5
+ fltr3_b1=5.153e-3
+ fltr3_b2=1.013e-5
```

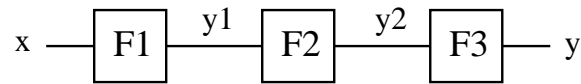


Figure 1: Implementation of `filter_butterworth_5.gce`

### Description

`filter_butterworth_5.gce` is an implementation of the fifth-order Butterworth filter as a cascade connection of three filters as shown in the figure. F1 is of type `filter_z0_p1.gce` whereas F2 and F3 are of type `filter_z0_p2.gce`. The real parameter `fltr1_b1` applies to F1, `fltr2_b1` and `fltr2_b2` apply to F2, and `fltr3_b1` and `fltr3_b2` apply to F3 in the figure.

In AC analysis, the above function holds (with  $s = j\omega$ ).