



# HDL-Wideband-PFB-Lab-Test

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## Design Files

### Simulink file

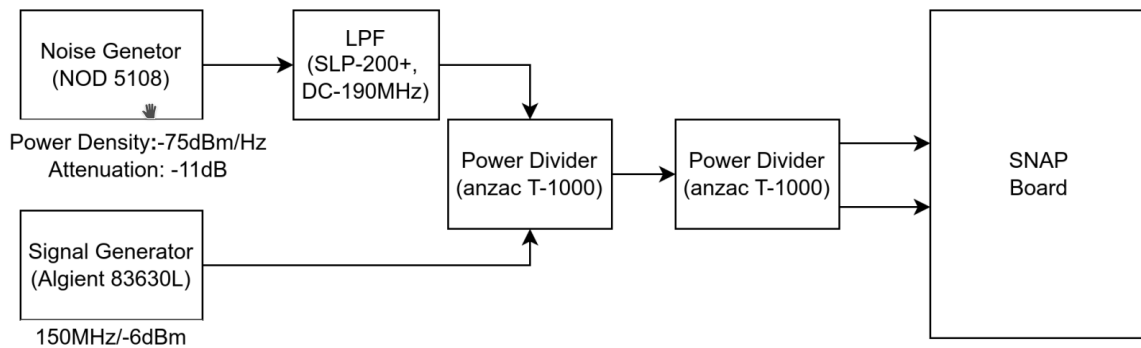
[https://github.com/liuweiseu/snap\\_hdl\\_tut/blob/master/snap\\_hdl\\_pfb.slx](https://github.com/liuweiseu/snap_hdl_tut/blob/master/snap_hdl_pfb.slx)

### Python script

[https://github.com/liuweiseu/snap\\_scripts/blob/master/ipynb/snap\\_hdl\\_pfb.ipynb](https://github.com/liuweiseu/snap_scripts/blob/master/ipynb/snap_hdl_pfb.ipynb)

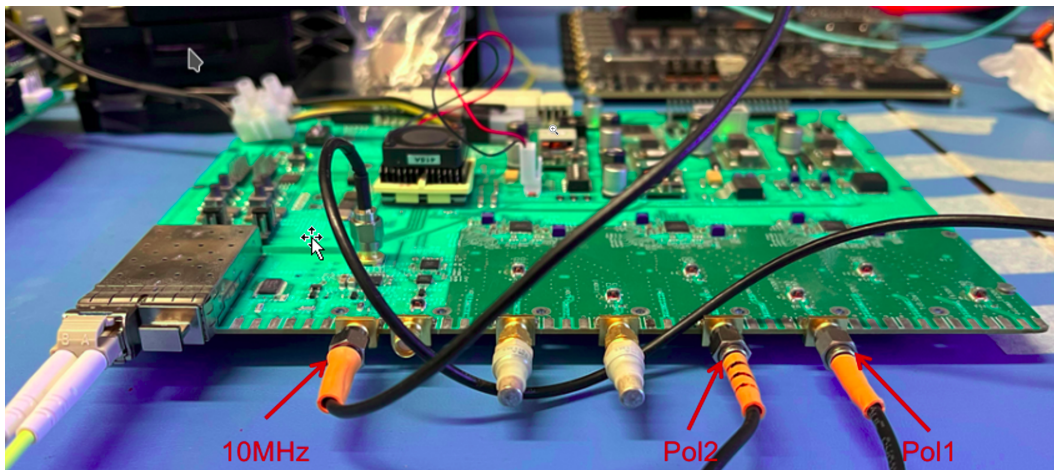
# SNAP set up

## Signal Chian



## ADC mode

- Sampling Freq: 500MSps



## Input signal

### Noise generator

- PN: NOD 5108
- Attenuation: -11dB

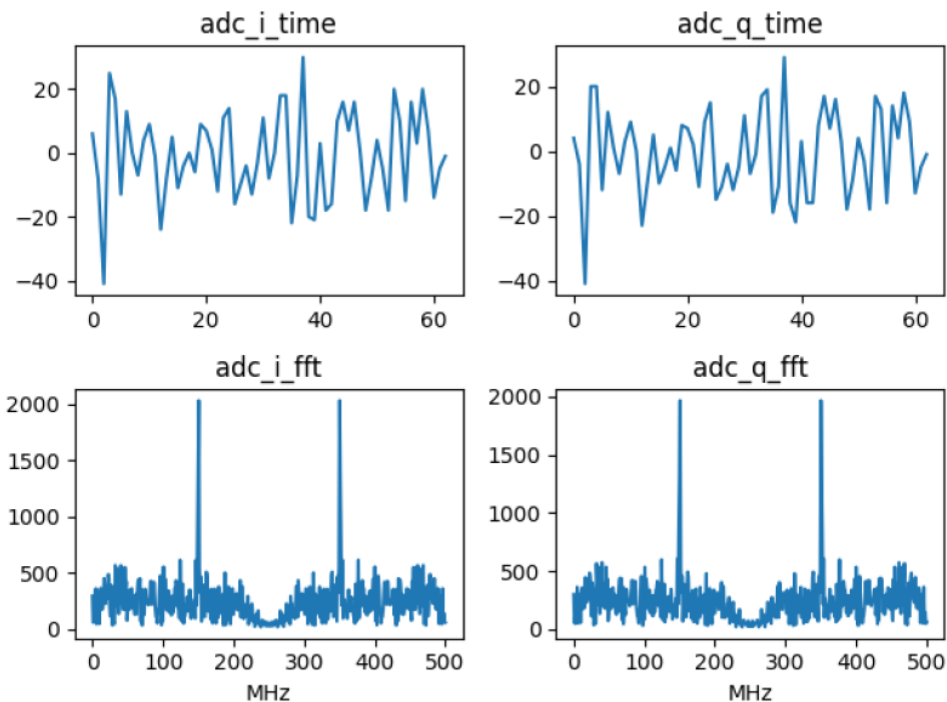
## Signal generator

- PN: aGILENT 83630L
- Freq: 150MHz
- Amp: -6dBm

## Test result

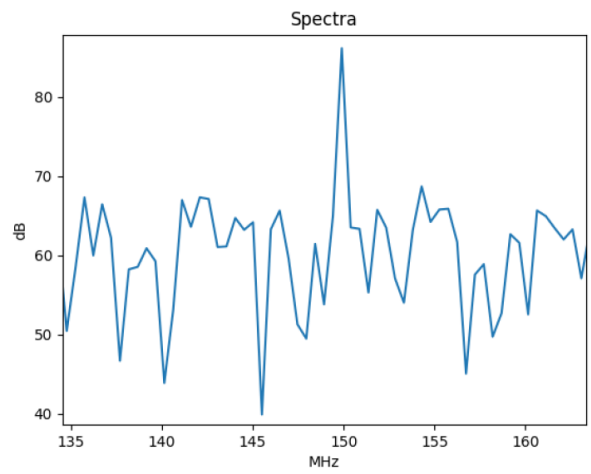
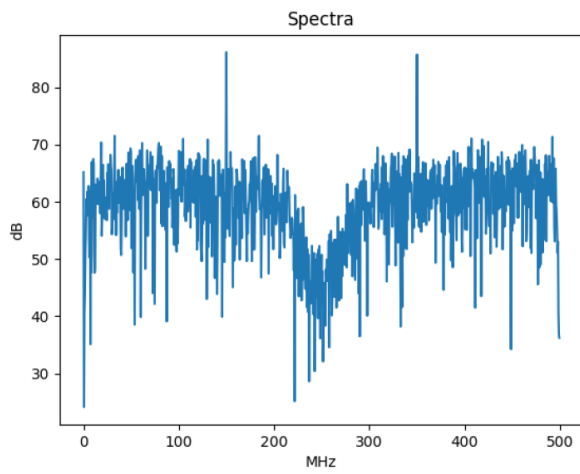
### ADC RMS

```
*****  
SNAP Board IP: 192.168.2.100  
*****  
Fabric Clock Freq : 250.311637 MHz  
RMS of ADC_I : 13.911762  
RMS of ADC_Q : 13.503327
```



## Wideband PFB test result

- $\text{acc\_num} = 1$



- $\text{acc\_num} = 128$

