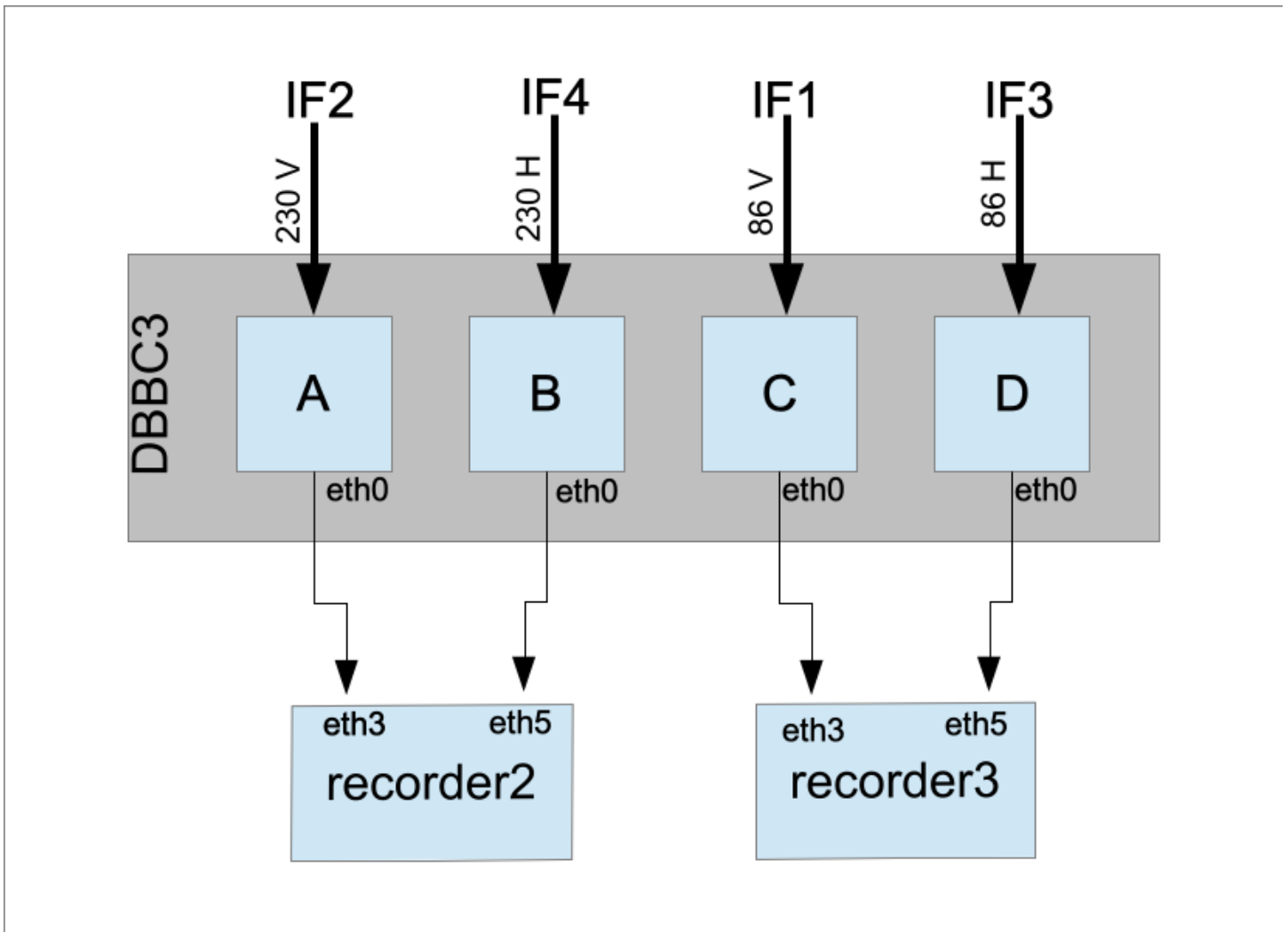


System schematics



Setup 86 GHz

Target band: 86.000 - 87.024

1st LO: 93.0 GHz

RF: LSB 5-9 GHz

2nd LO (DBBC3): 9.048 GHz

Sky freq: 83.952 - 88.048 GHz

sky	83952	85976	86000	87024
after 1st DC	9048	8024	7000	5976
after 2nd DC	0	1024	2048	3072

=> DBBC3 should use filter1= 2000-3000

Setup 230 GHz

Target band: 215.000 - 216.024

1st LO: 221.010 GHz

RF: LSB 5-9 GHz

2nd LO (DBBC3): 8.058 GHz

Sky freq: 211.962 - 216.058 GHz

sky	212952	213976	215000	216024
after 1st DC	8058	7034	6010	4986
after 2nd DC	0	1024	2048	3072

=> DBBC3 should use filter1 = 2000-3000

DBBC3 setup

- load normally the OCT_120 firmware
- run `dbbc3ctl.py` and do `check system all`
- run `/home/oper/rothmann/dbbc3/utilities/setupFPT_Nov22.py dbbc3` (sets the 1GHz filters and the LO freqs)

Modules & Recorders

recorder2

slot 1: EHT%0017

slot 2: EHT%0018

recorder3

slot 1: EHT%0019

slot 2: EHT%0020

module setup (do on both recorders)

```
group=new:12
input_stream=add:stream1:vdif:8224:50:42:eth3:::1
input_stream=add:stream2:vdif:8224:50:42:eth5:::2
input_stream=commit
group=open:12
```

Line injection test (Nov 10th)

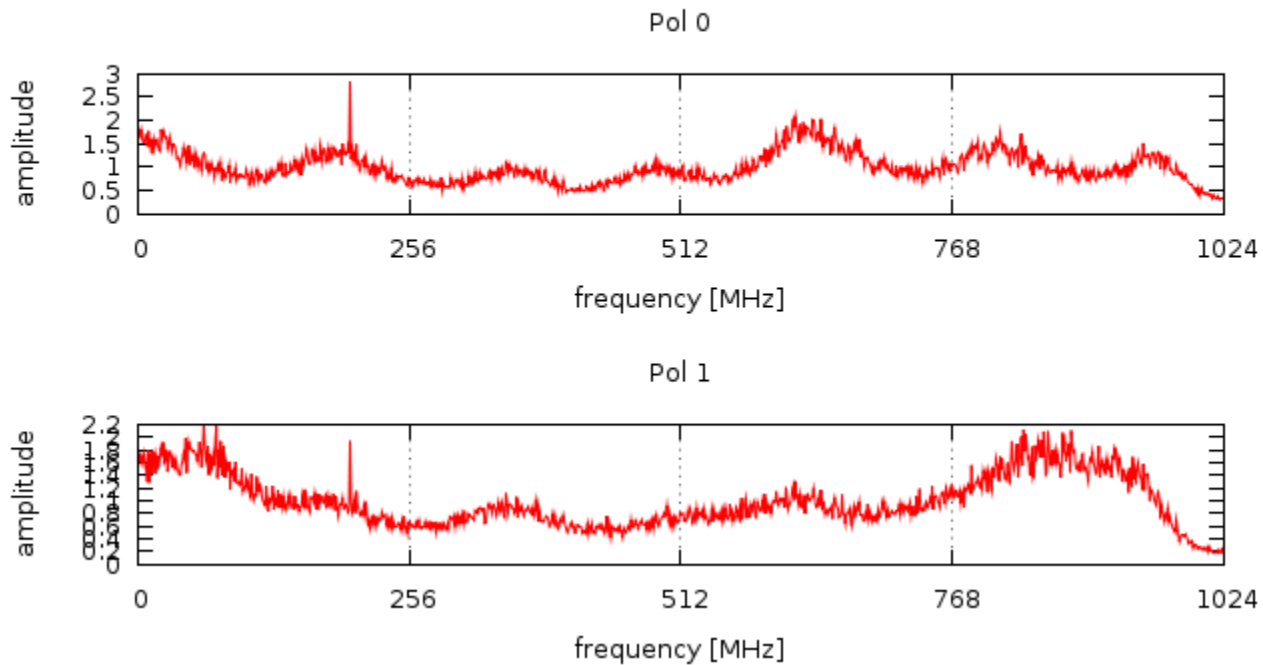
230 GHz signal chain

Line freq: 5810 MHz (corresponds to 215.2 GHz sky)

connected to boards A and B (corresponding to IF2 and IF4)

Line is expected to appear at 2248 MHz in base band and at 200 MHz in the filtered band

DBBC3: 2022-11-10-14-19-20



86 GHz signal chain

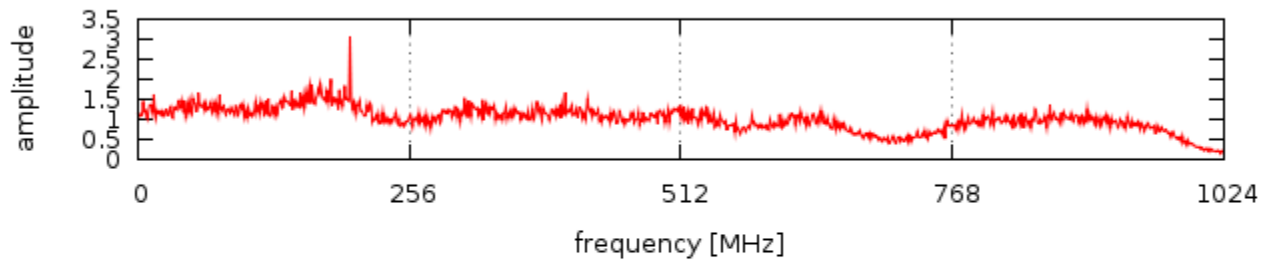
Line freq 6800 MHz (corresponds to 86.2 GHz sky)

connected to boards C and D (corresponding to IF1 and IF3)

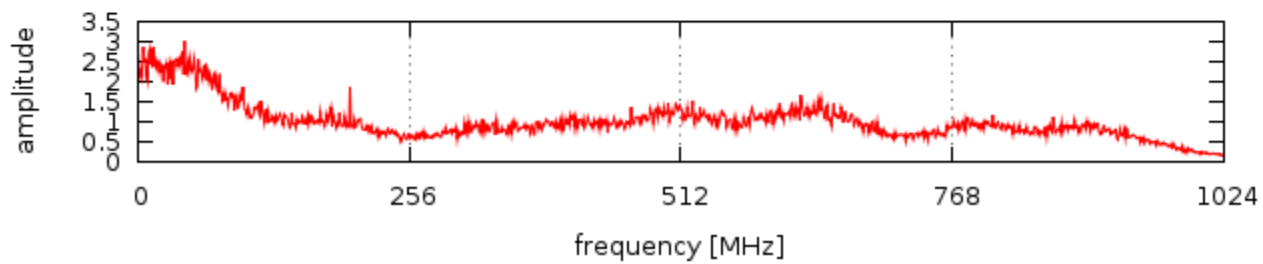
Line is expected to appear at 2248 MHz in base band and at 200 MHz in the filtered band

DBBC3: 2022-11-10-14-16-40

Pol 0



Pol 1



Action

- ~~Change GMVA modules to recorder1 (SS)~~
- ~~Insert new modules to recorders 2 & 3 (SS)~~
- ~~update google sheet (SS)~~