

EHT observations at 230 GHz are carried out in the 5-9 bands.

At 345 GHz 4-8 GHz IFs are being used which requires the following changes:

Filter change

The 4 filters connected to the IF inputs of the DBBC3 need to be manually exchanged:

| Freq | Filter |
|---------|---------|
| 230 GHz | 5-9 GHz |
| 345 GHz | 4-8 GHz |

Downconversion setup

The LO frequency of the DBBC3 has to be changed to match the hardware filters.

The LO-frequencies for the four bands are defined in `/etc/backend.conf`:

```
dbbc3.all: {layout: dbbc3, hostname: dbbc3, port: 4000, mode: "OCT_D",
sw_major: 120, sw_minor: 220831,
  boardA: {bitfile: "dbbc3_oct_D_2hv2_221122.bit", filter1:
"2000-4000_64taps.flt", filter2: "0-2000_64taps.flt", synth_freq: 9048},
  boardB: {bitfile: "dbbc3_oct_D_2hv2_221122.bit", filter1:
"2000-4000_64taps.flt", filter2: "0-2000_64taps.flt", synth_freq: 9048},
  boardC: {bitfile: "dbbc3_oct_D_2hv2_221122.bit", filter1:
"2000-4000_64taps.flt", filter2: "0-2000_64taps.flt", synth_freq: 9048},
  boardD: {bitfile: "dbbc3_oct_D_2hv2_221122.bit", filter1:
"2000-4000_64taps.flt", filter2: "0-2000_64taps.flt", synth_freq: 9048},
  ...
```

The correct setting is depending on the observing frequency:

| Freq | DBBC3 LO setting |
|---------|------------------|
| 230 GHz | 9048 |
| 345 GHz | 8048 |

- Edit `/etc/backend.conf`
- execute (on VLBI control computer `ccpico`)

```
backendctl dbbc3 dbbc3 configure
```

Remember to revert the changes when going back to 230 GHz!