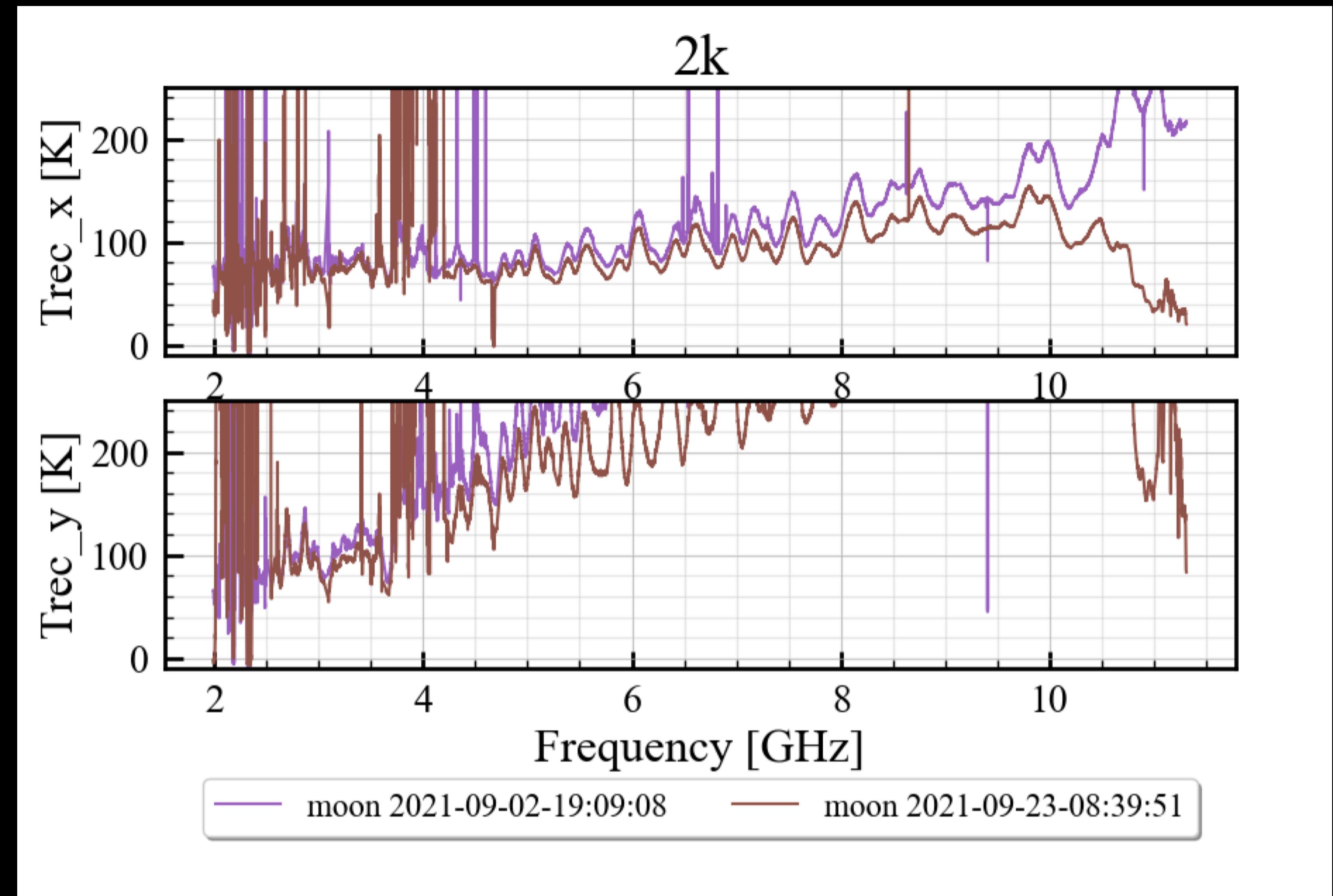
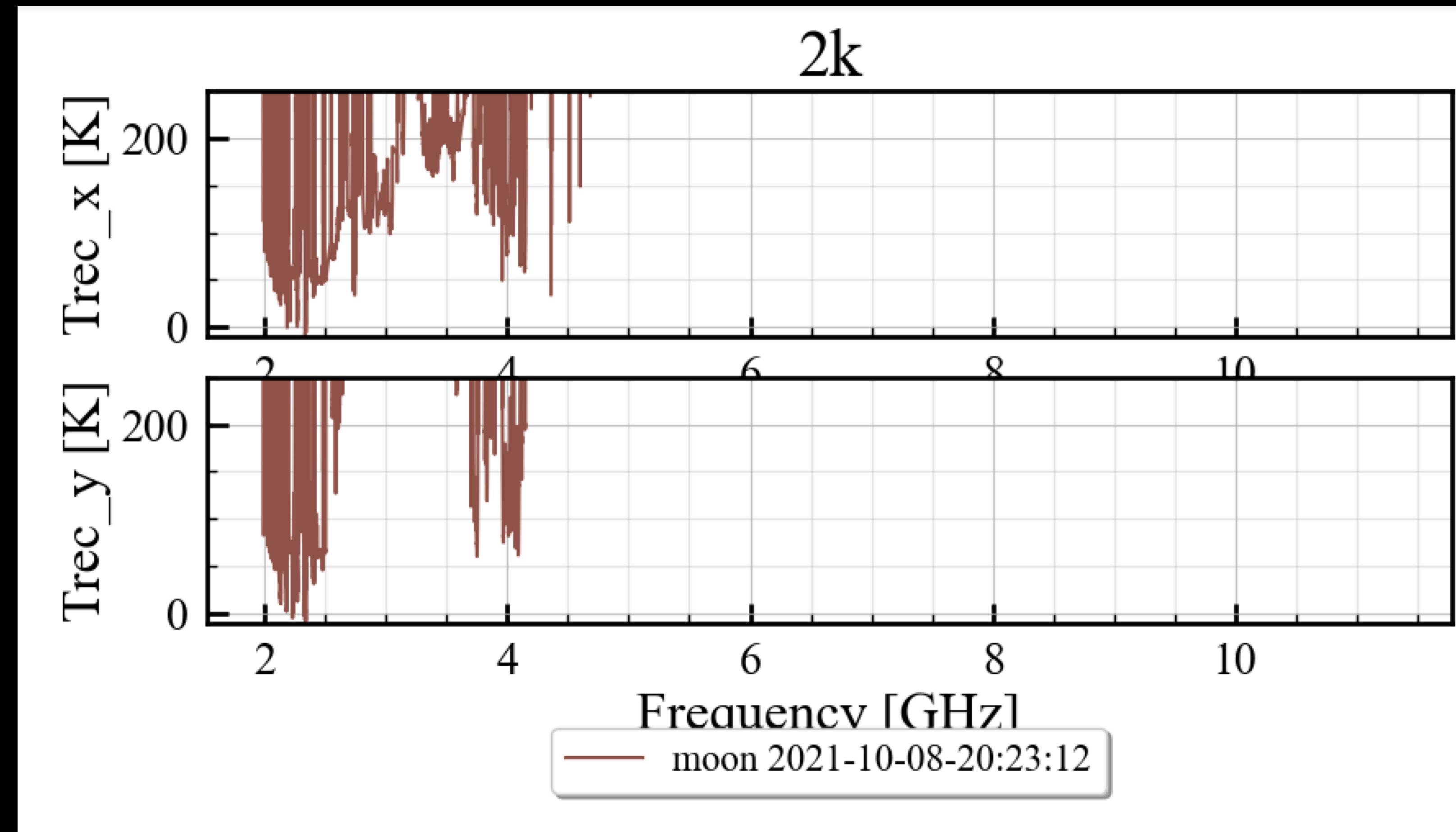


# History of 2k

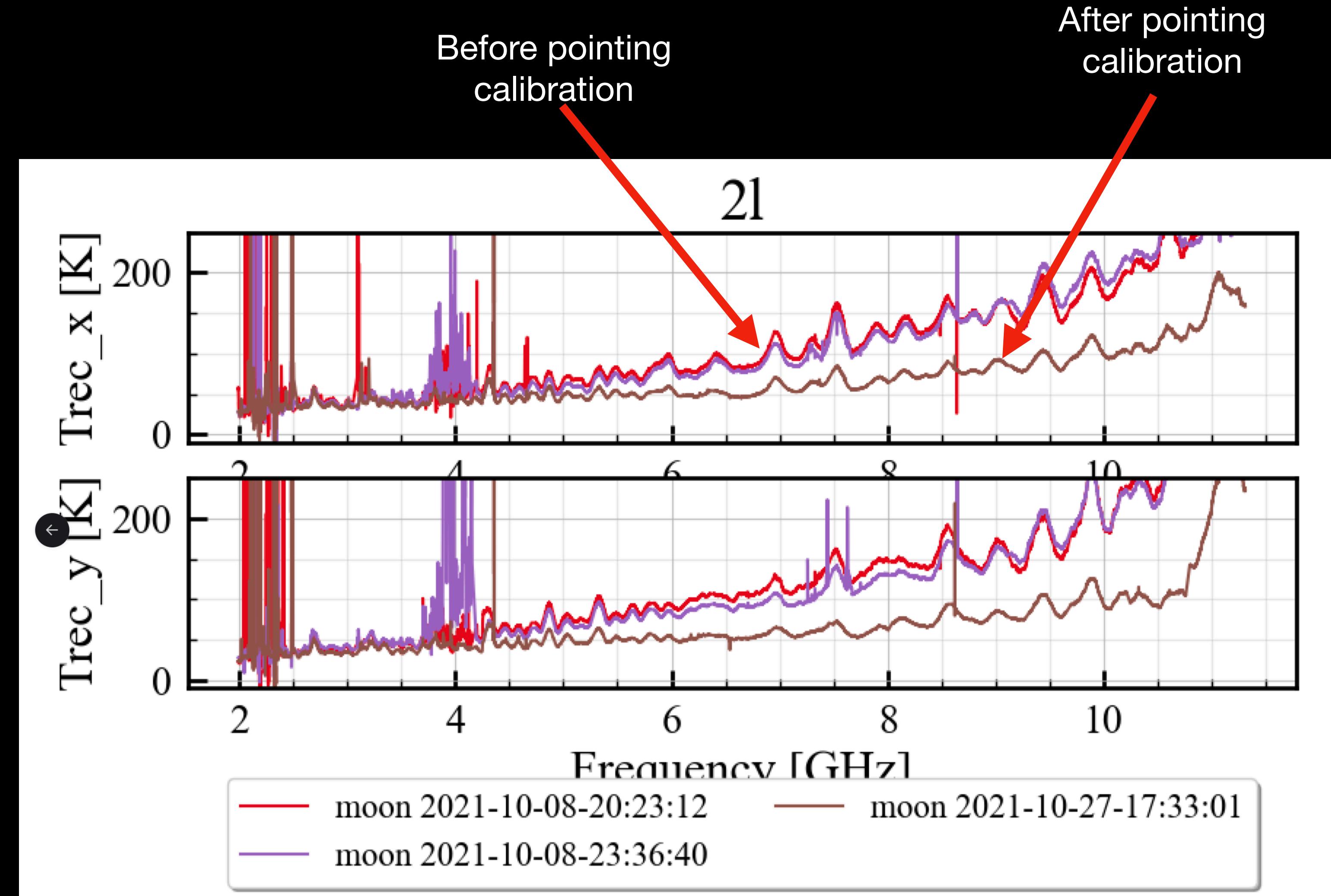
- First “light” after installing feed
- X and Y response on sky seemed different
- Usual process of pointing calibration to follow



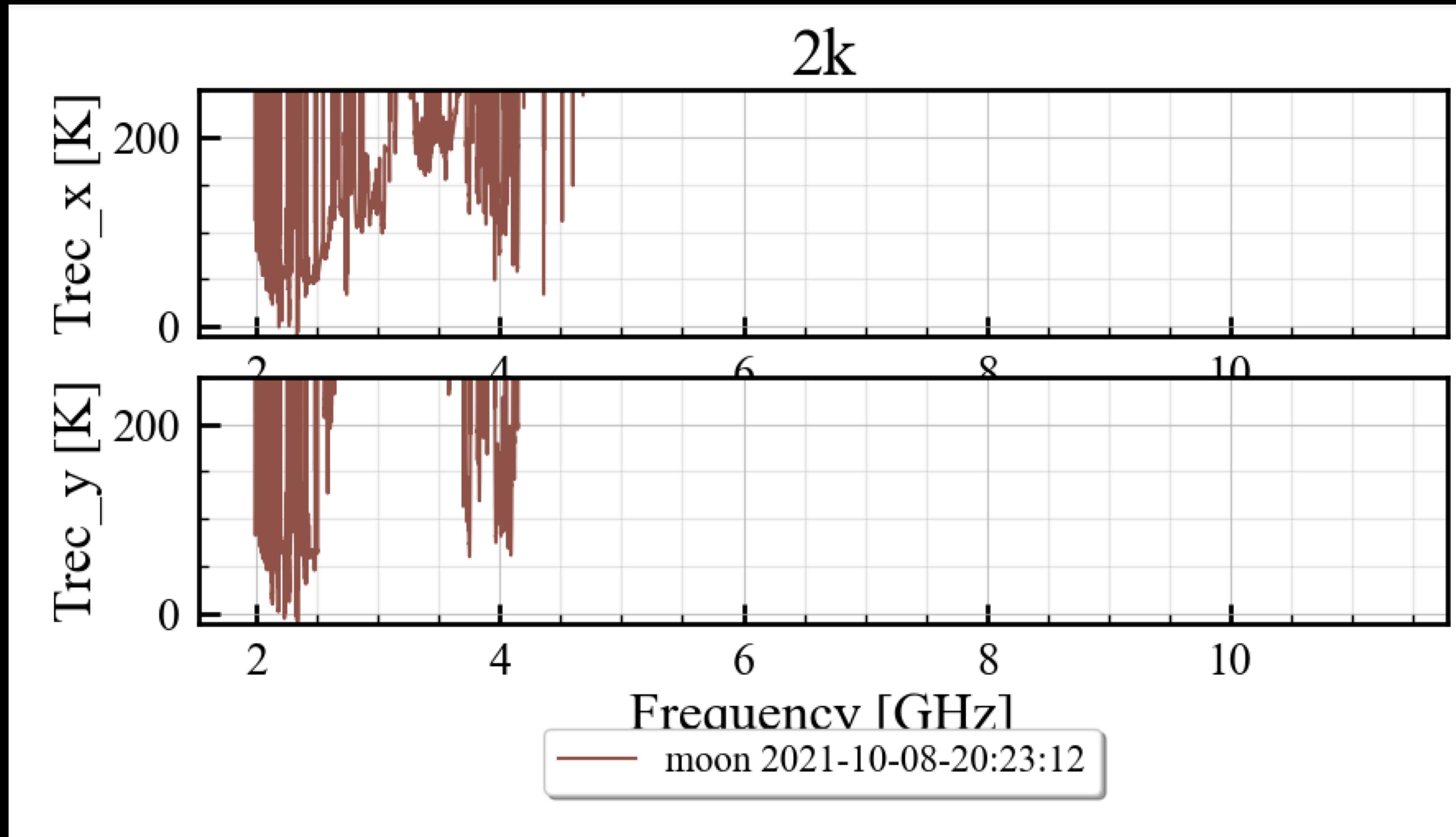
- 2k after pointing calibration
- Another pointing calibration run didn't fix the issue
- Since then, we couldn't properly calibrate the pointing



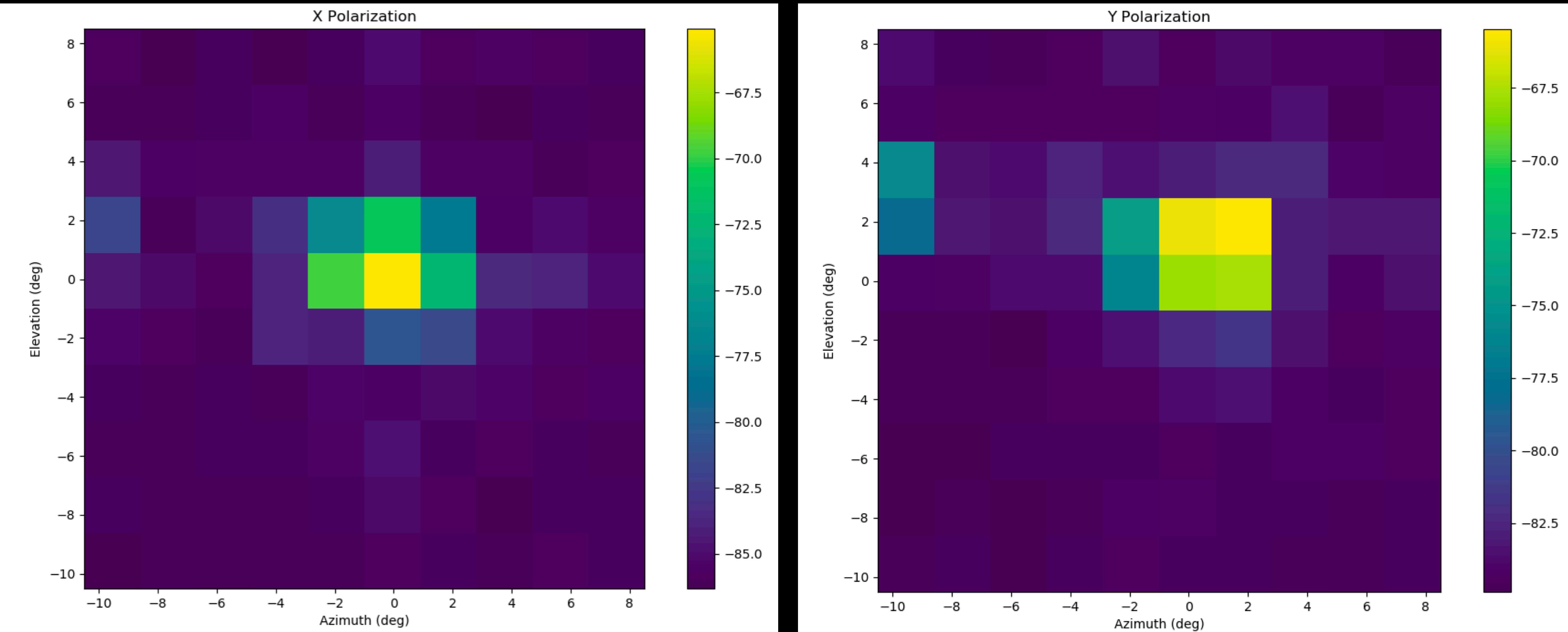
- For comparison:  
2l, “new feed”  
Before/After pointing  
calibration
- Same observing run  
where 2k was included



- 2k after pointing calibration
- Another pointing calibration run didn't fix the issue
- Since then, we couldn't properly calibrate the pointing
- Can tpoint be locking unto a sidelobe?



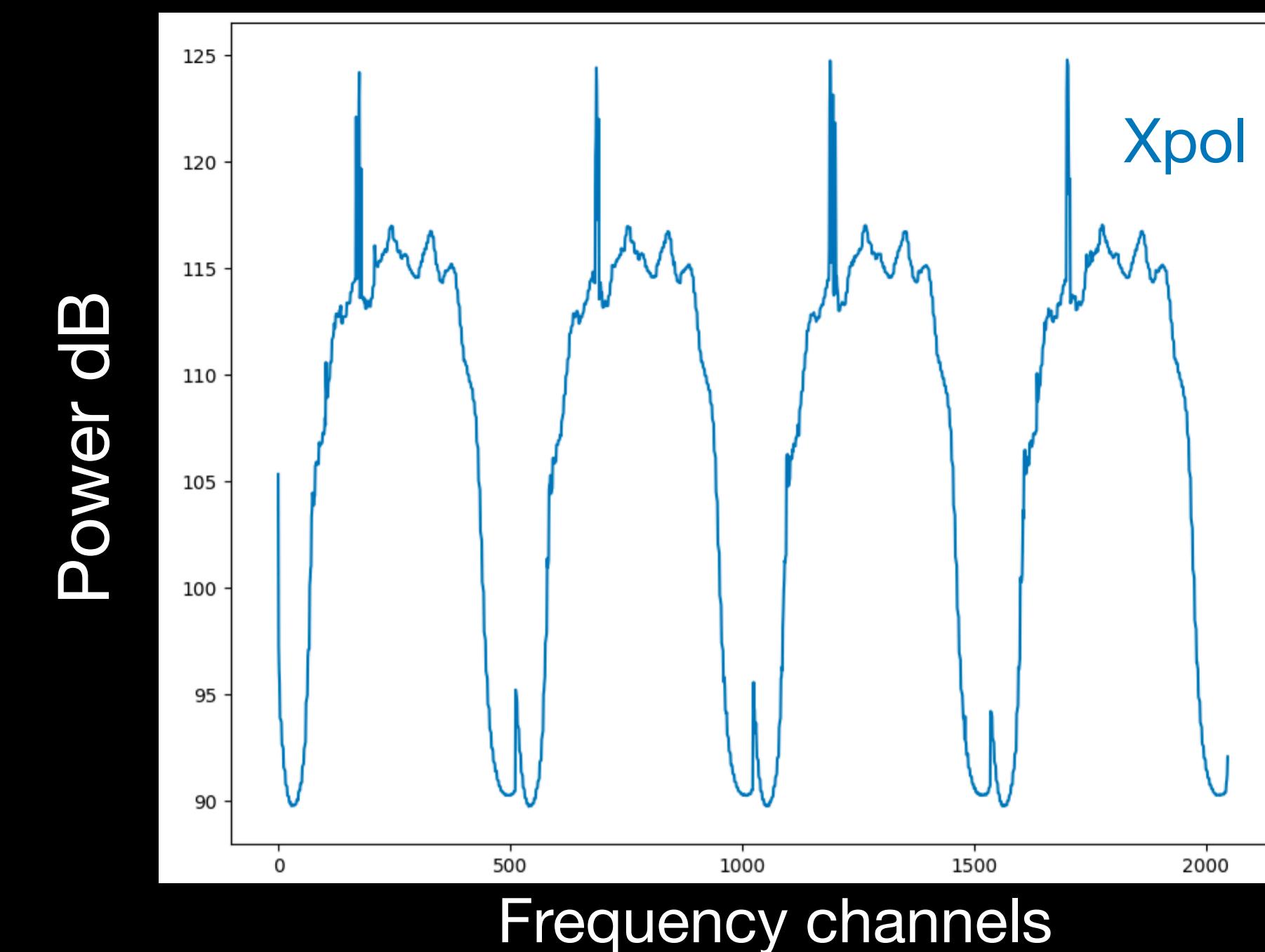
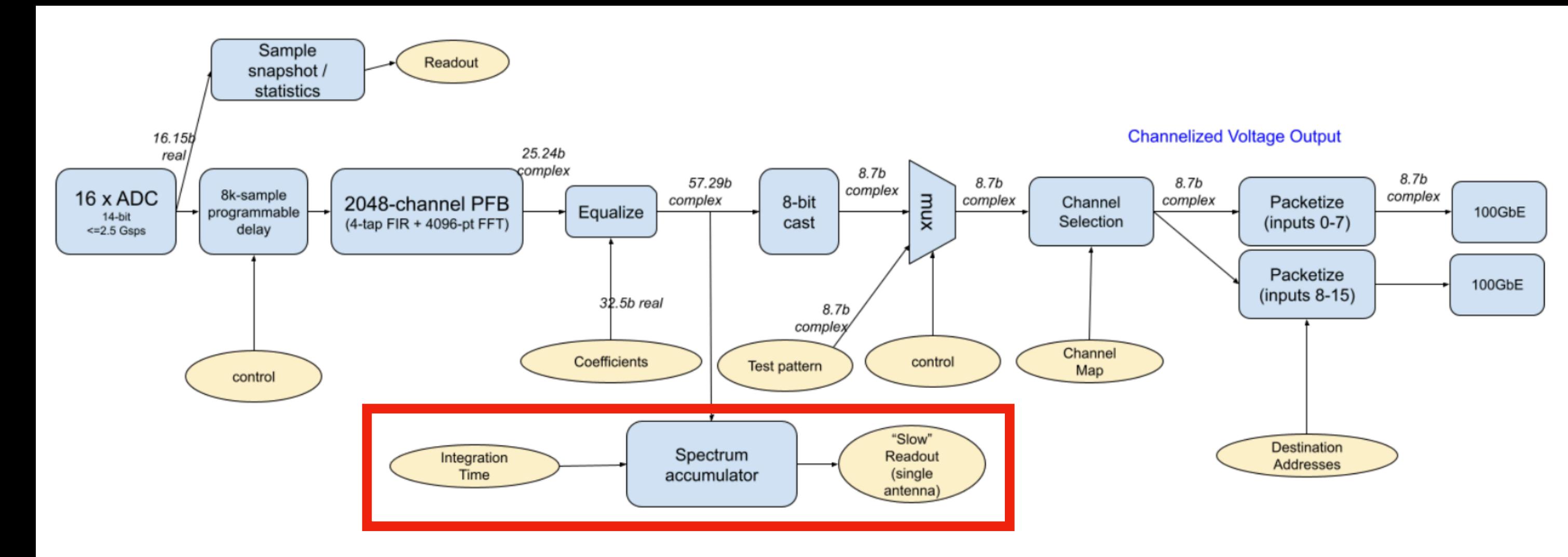
# Raster scan with both polarizations



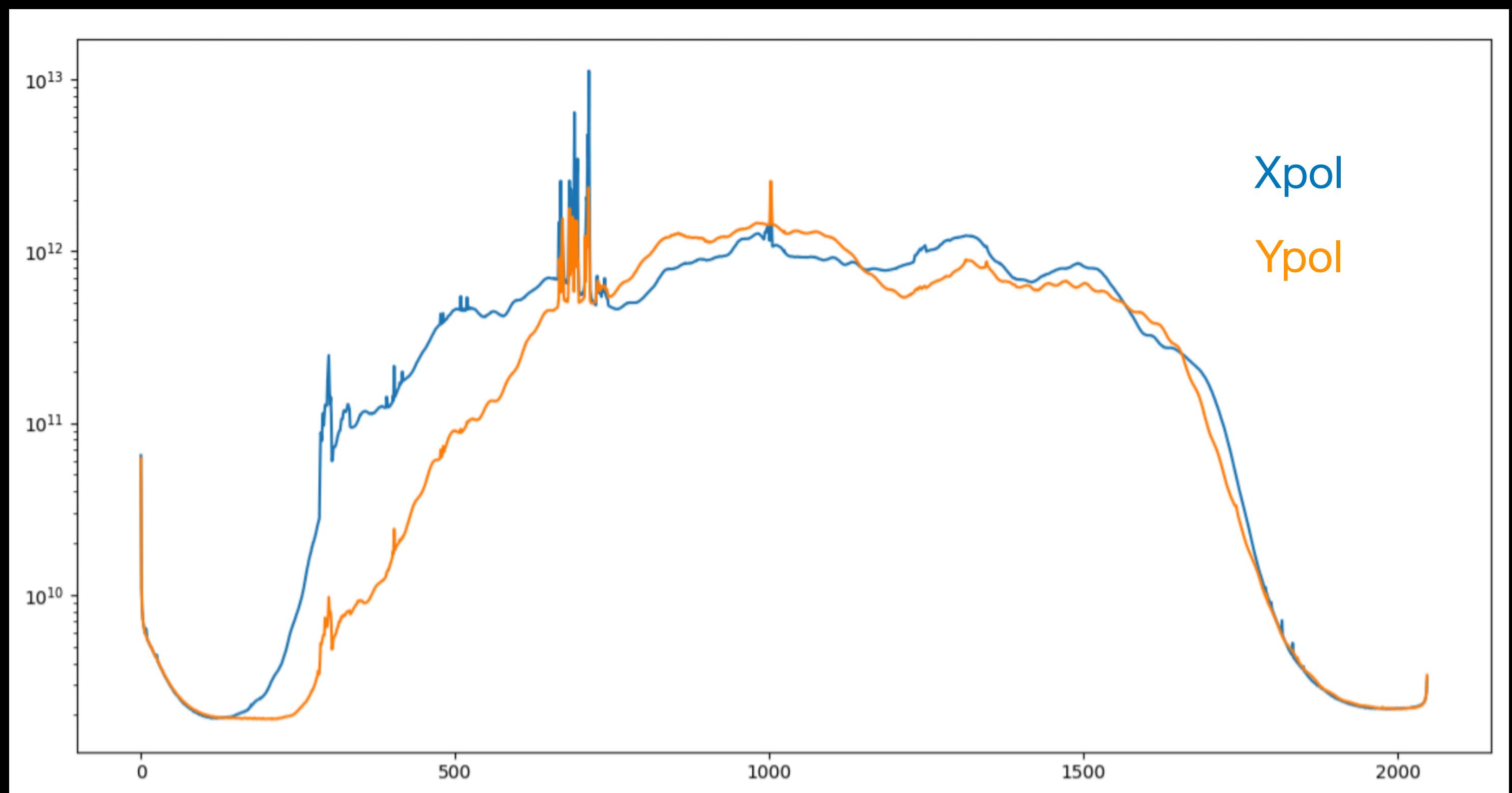
Very coarse => 2 degree step

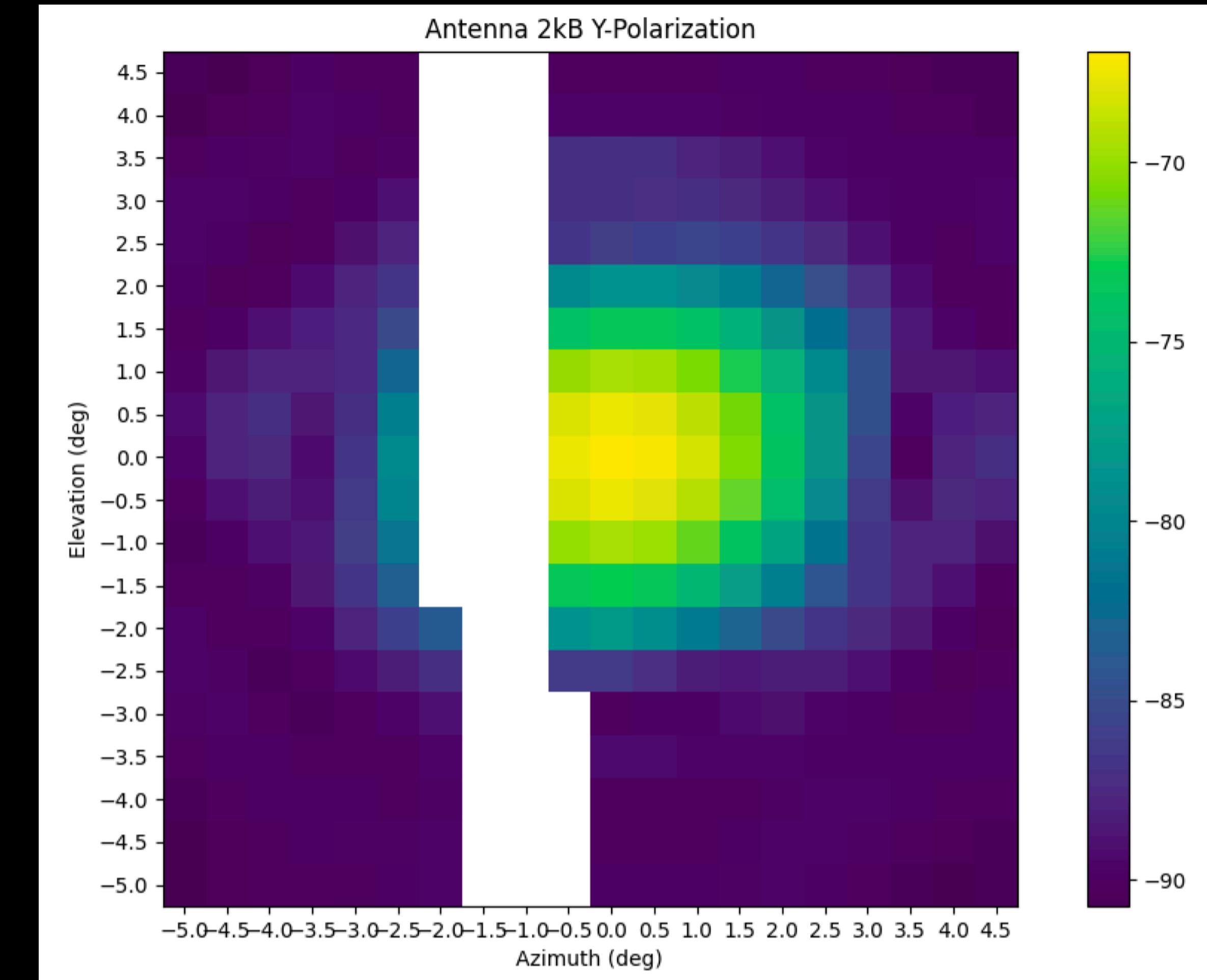
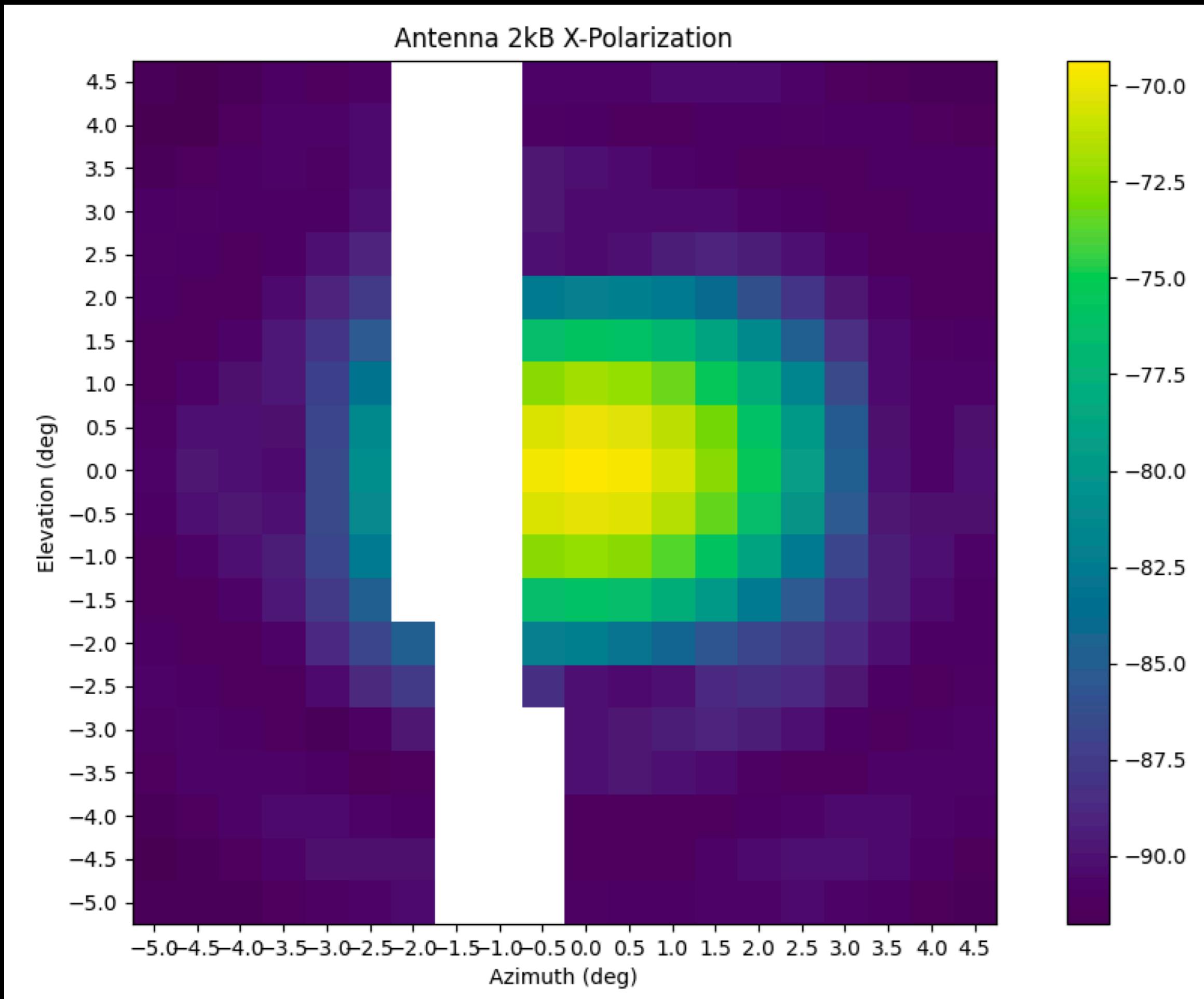
# RFSoC / Beamformer updates

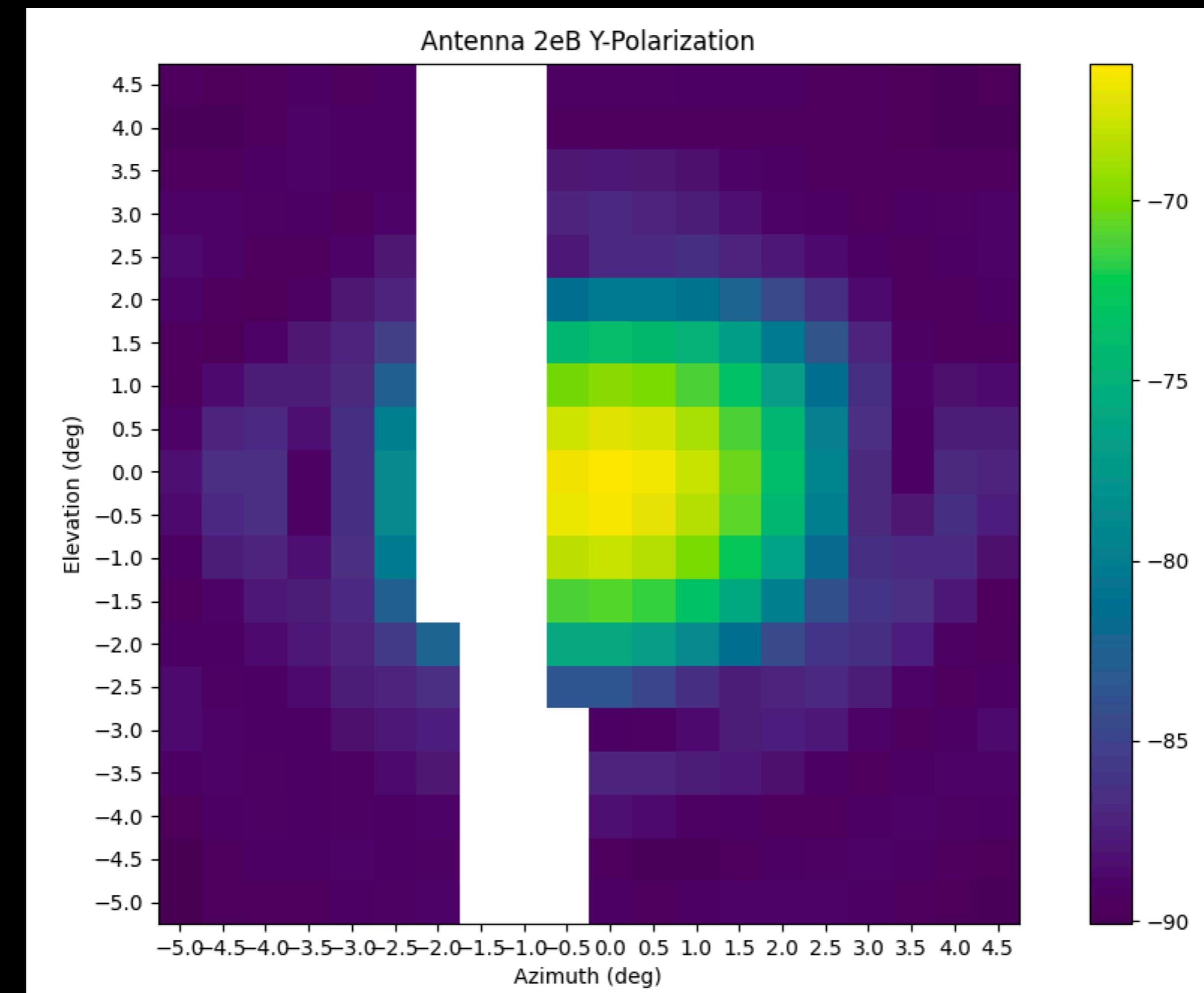
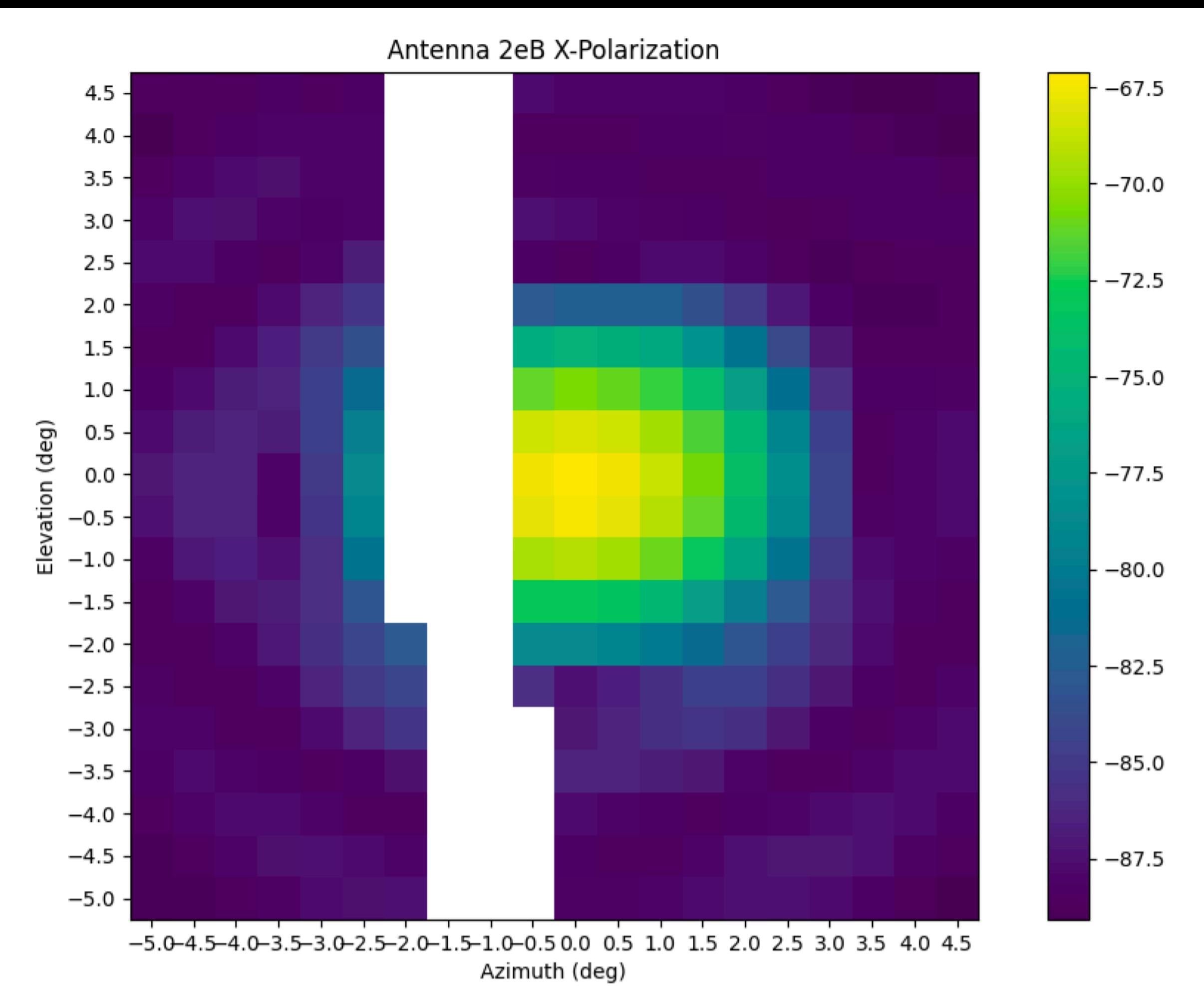
- “Slow” spectrum readout off FPGA boards
- Has 2 main purposes:
  - EQ balancing
  - Observer data visualization
- “Duplicate” spectra

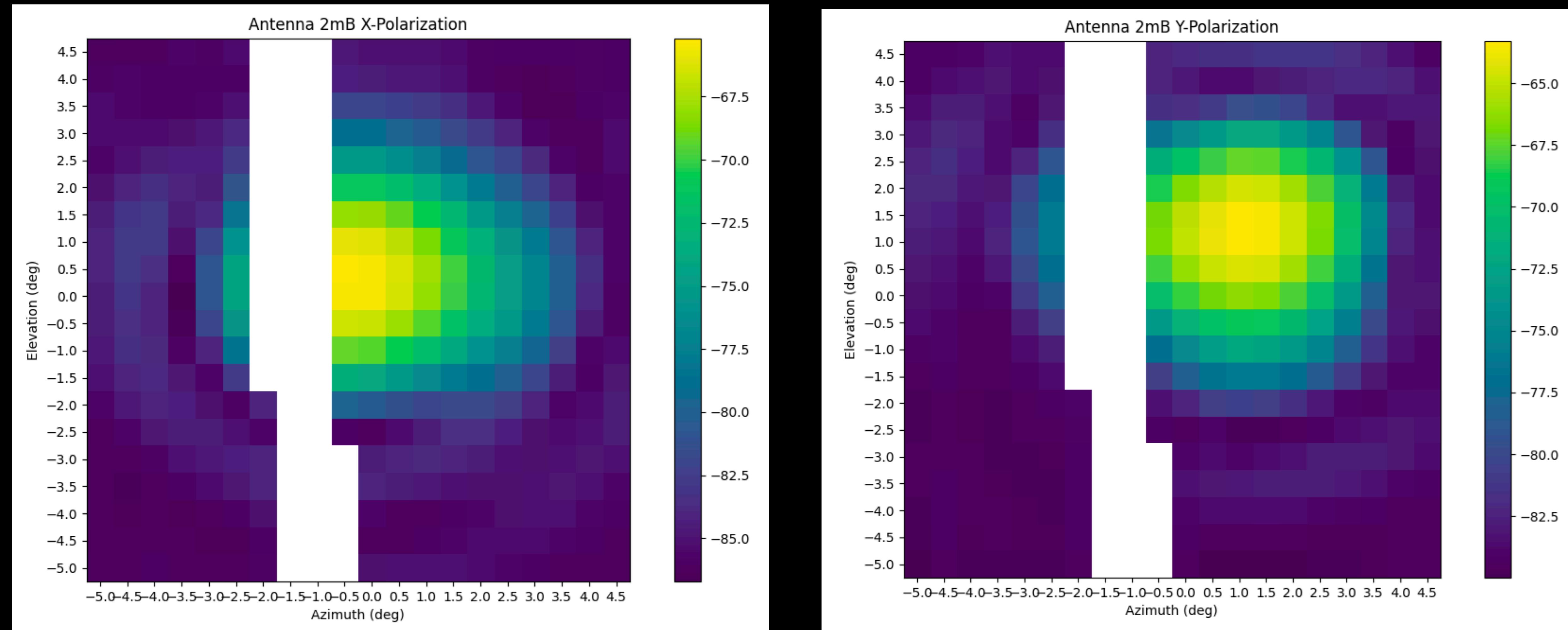


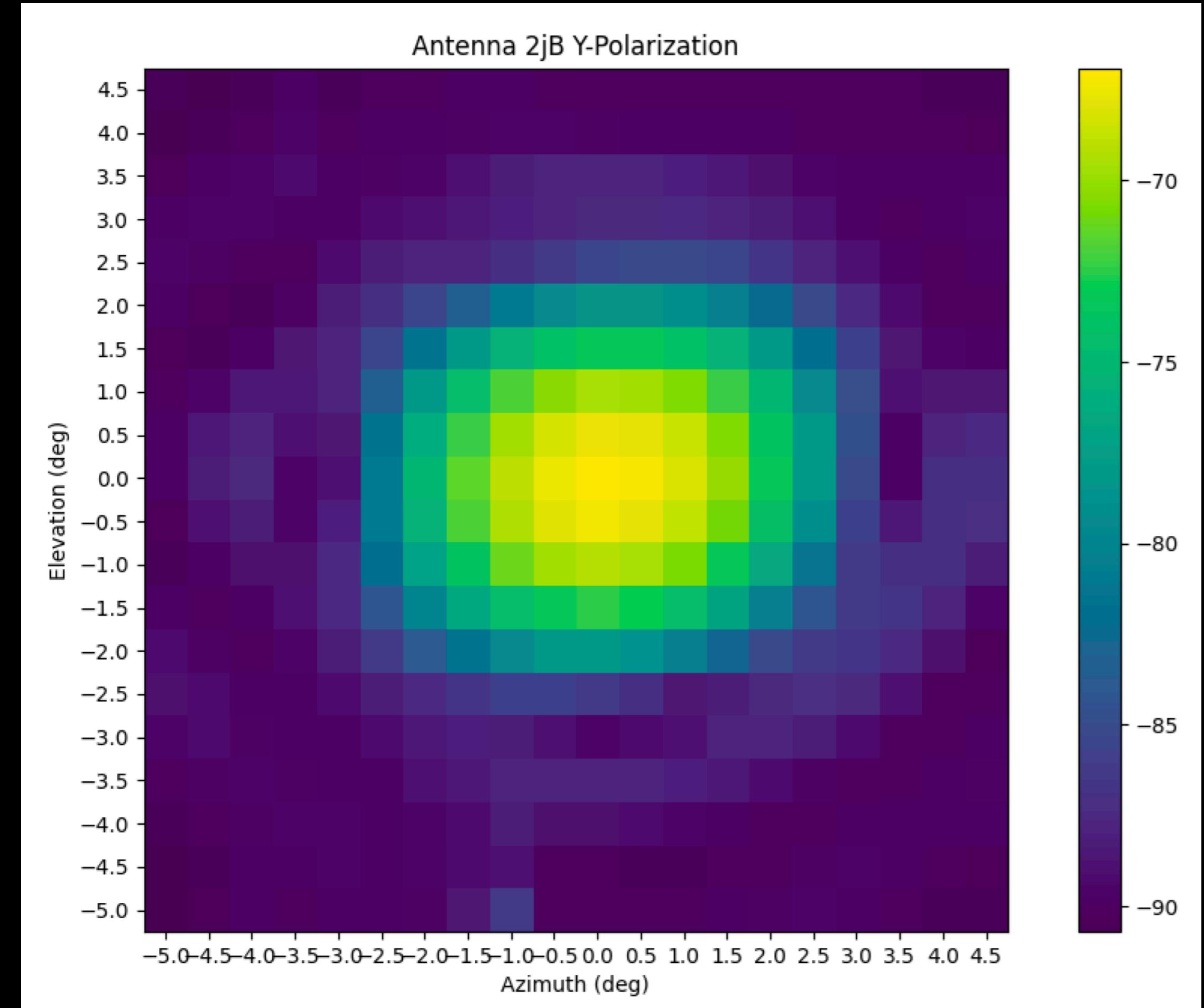
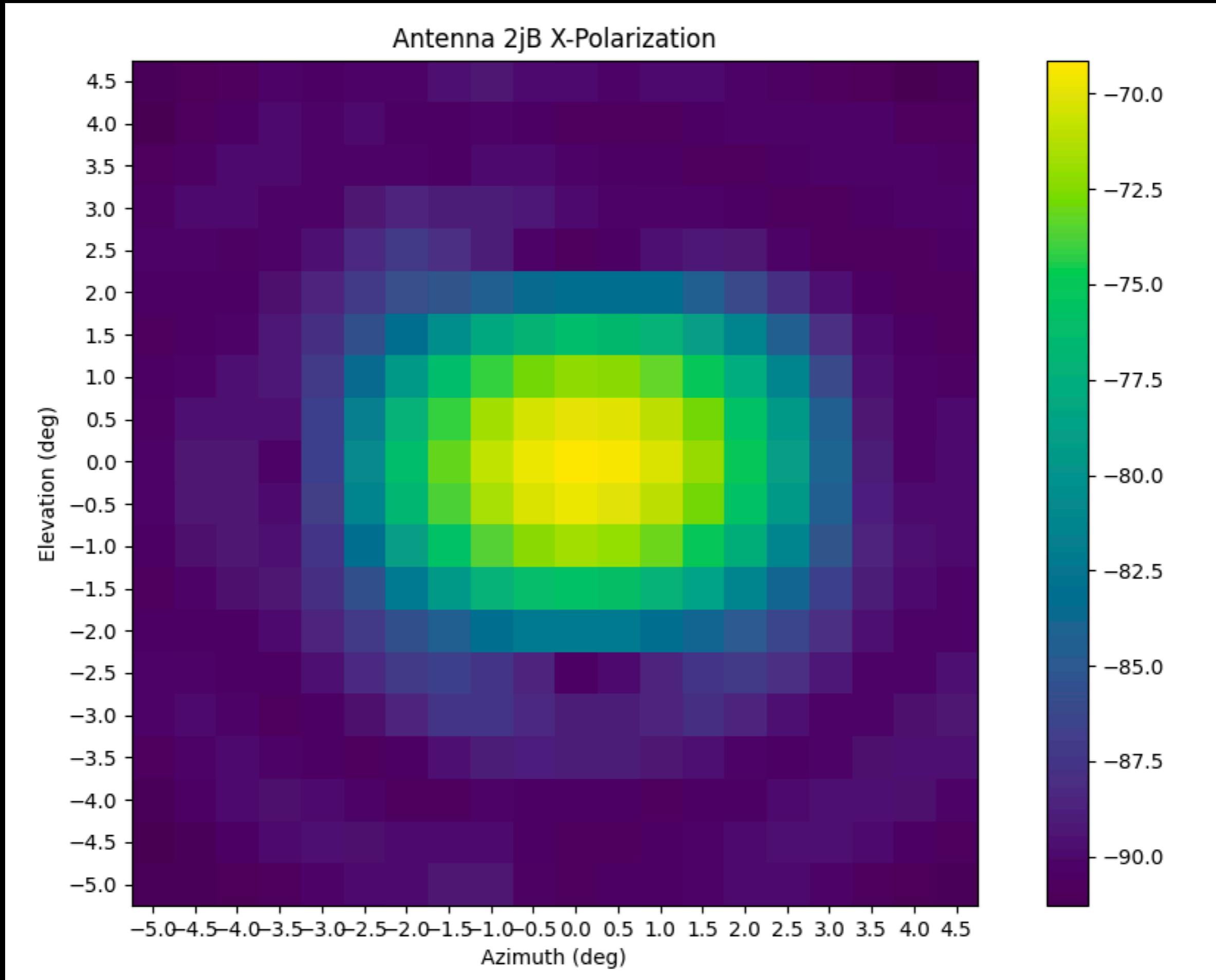
- 4bit firmware did not do a final channel reorder. 8bit mode does (because more memory is available)
- Software was compensating for that
- Issue now fixed
- Testing 8-bit EQ balancing

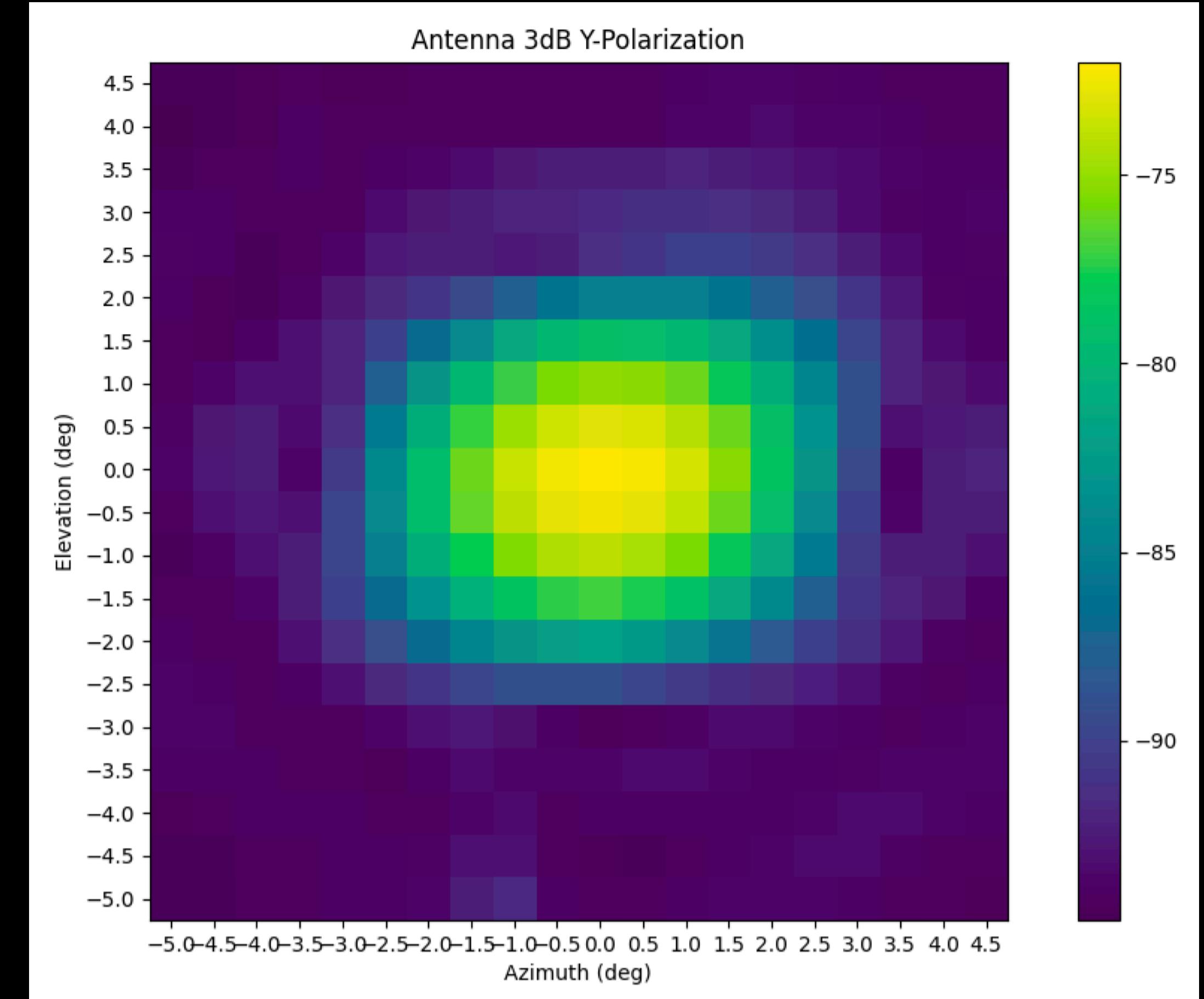
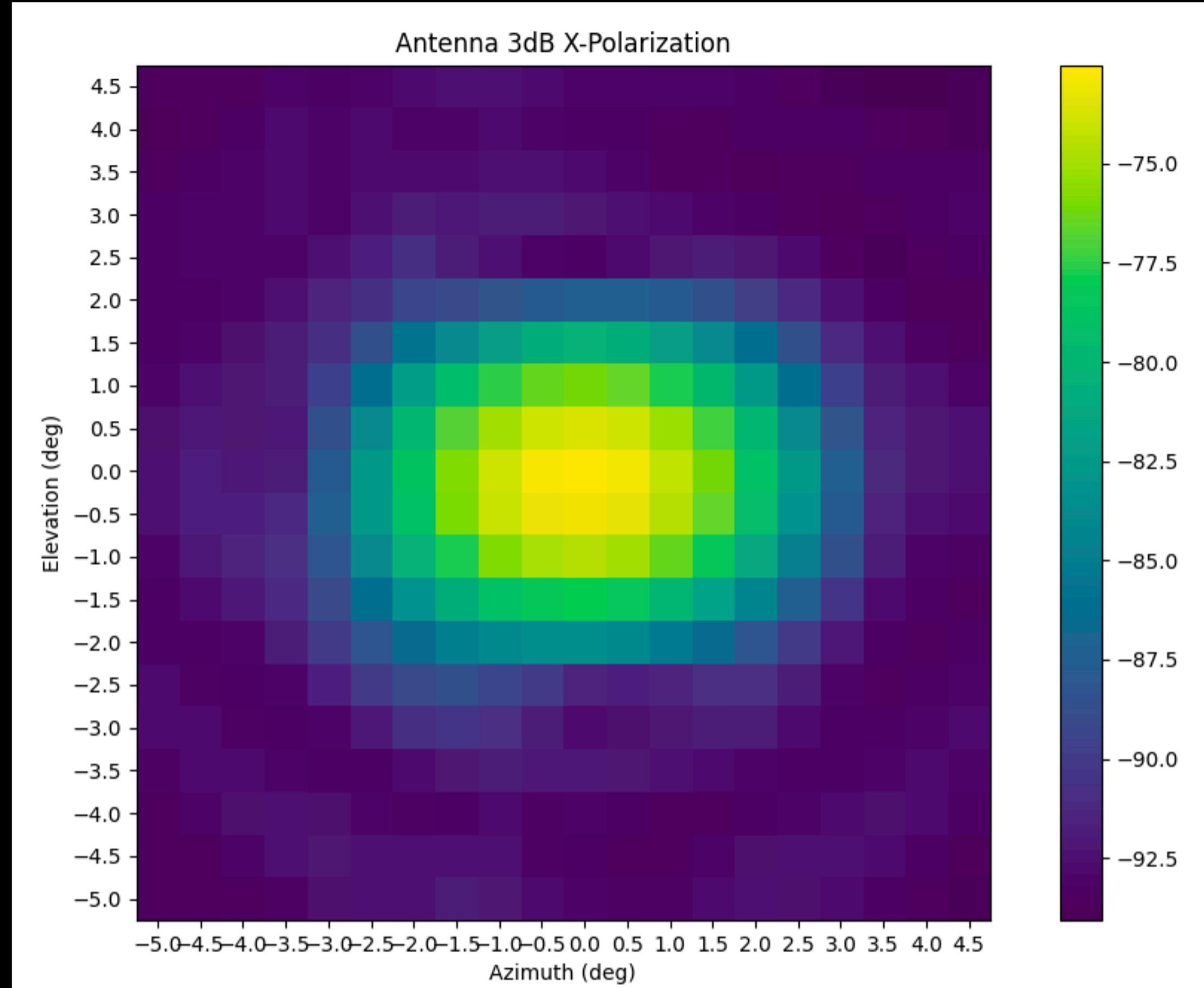






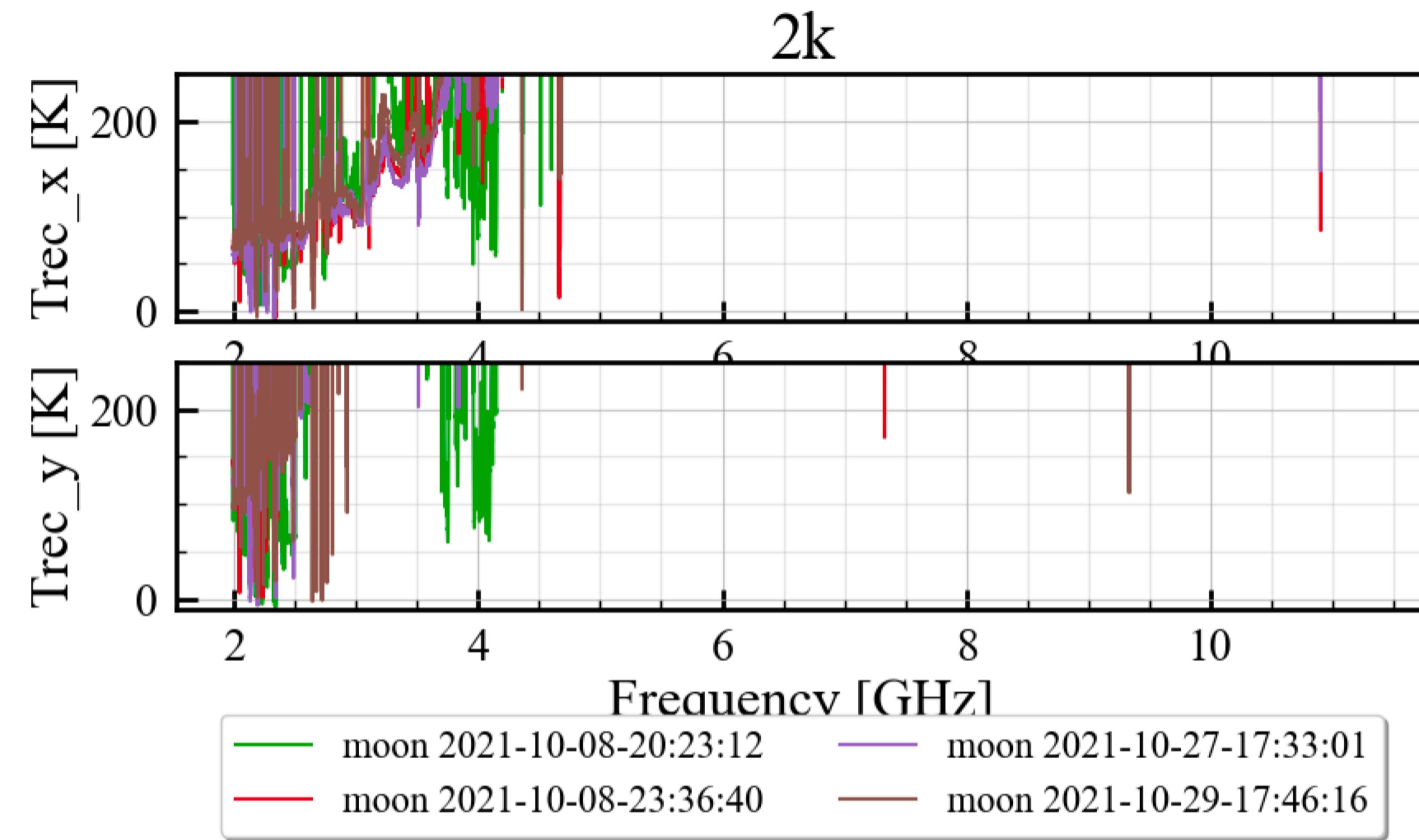






# RFSoC temperatures

```
redishost:6379> hget rfsoc1_sensors ps_temp  
"78.60110161768799"  
redishost:6379> hget rfsoc2_sensors ps_temp  
"91.595074517112"  
redishost:6379> hget rfsoc3_sensors ps_temp  
"87.445085564784"  
redishost:6379> hget rfsoc4_sensors ps_temp  
"82.84434874872001"  
redishost:6379> hget rfsoc5_sensors ps_temp  
"86.38815953947199"
```



# Timeline

- 8-bit mode with all antennas (no delay engine) - October 15th
- Network ingest test + write-to-disk tests - October 22nd
- Interface with GPU-beamforming library - October 31st.
- 8-bit mode + delay firmware - November 7th
- Calibration runs, phase stability, beam forming efficiency - November 22nd
- Real-time beam forming operations - December 15th