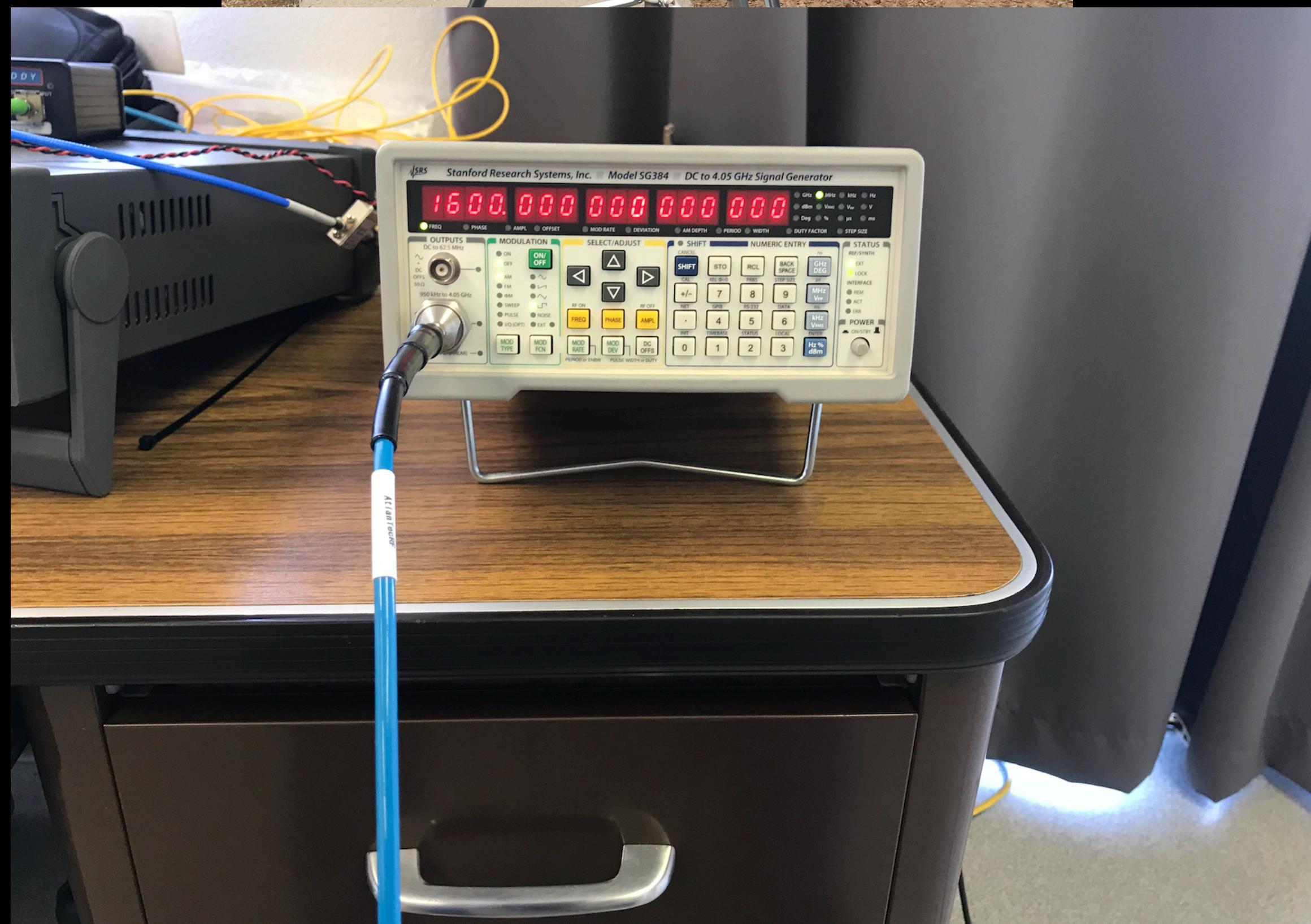


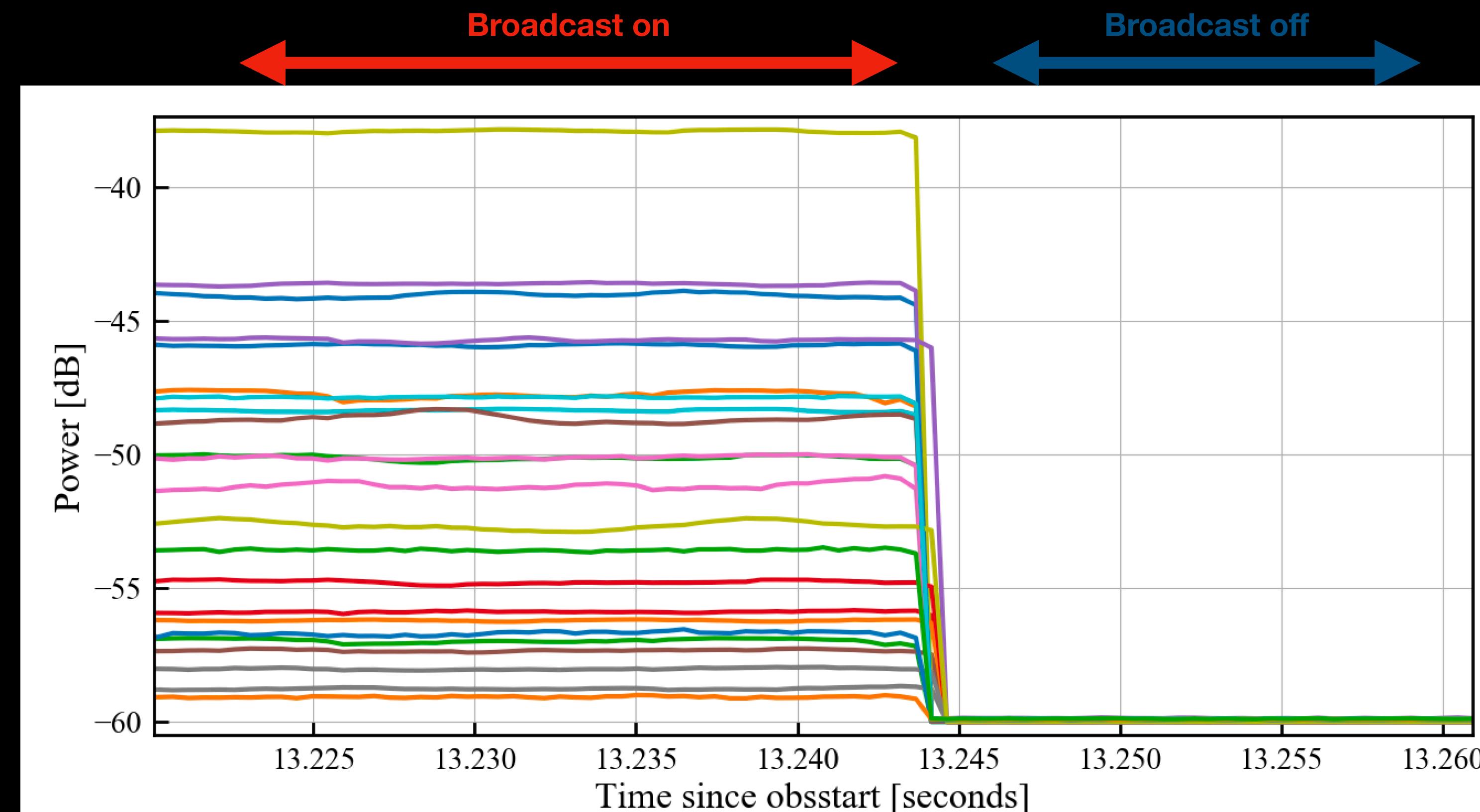
# Timing test

- Broadcast sine-wave at 1600 MHz
- Record data with **4x3 RFSoC** pipelines + **12x SNAP** pipelines (480us time resolution)
- Manually stop broadcast half-way through RFSoC+SNAP recording.

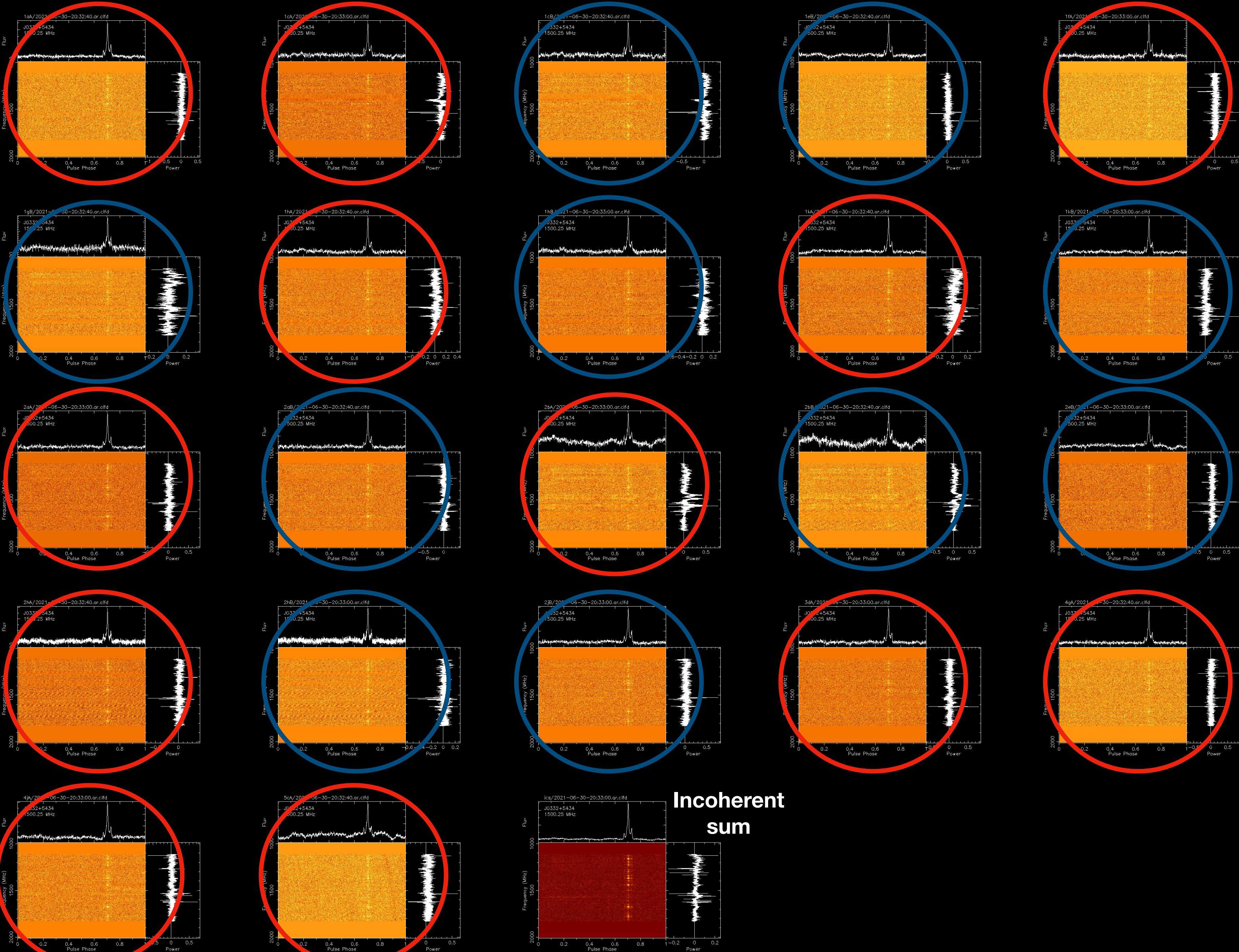


# Timing test

- Broadcast sine-wave at 1600 MHz
- Sync boards. Record data with **4x3 RFSoC** pipelines + **12x SNAP** pipelines (480us time resolution)
- Manually stop broadcast half-way through recording.  
Experiment repeated ~20x



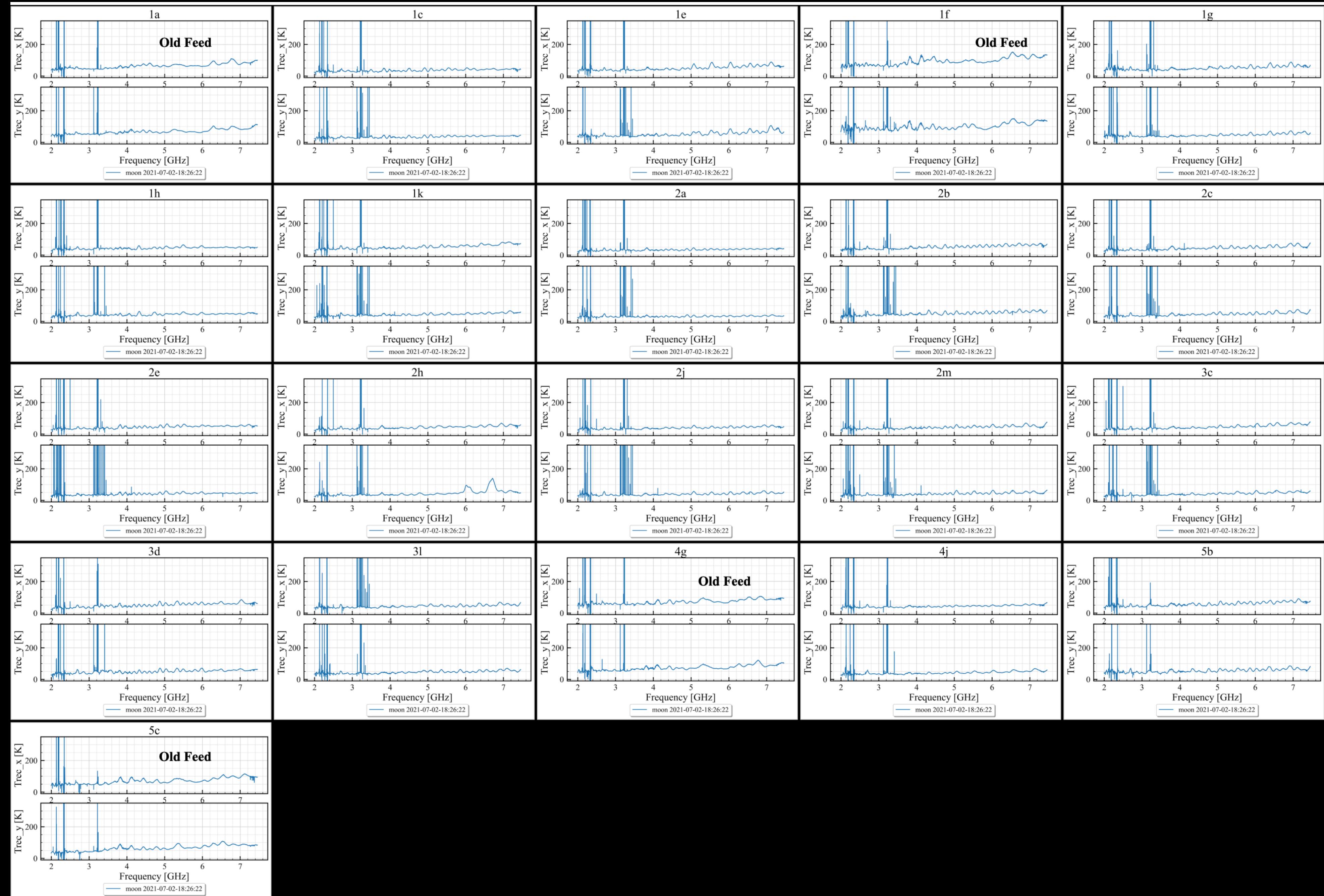
- Timing across SNAP + RFSoC boards solved (combination of switch config + metadata housekeeping)



- July 2nd

Moon on/off observation with all available antennas

- (Observation cuts at 7.5 GHz because of a coms failure with rfsoc board)



# RFSoC development

- 4-antenna spectrometer mode firmware ready + tested
- 4-antenna voltage mode firmware ready (testing underway)
- 8-antenna spectrometer + voltage mode under development

```
Device enp225s0f1 [10.11.1.64] (5/9):
```

```
=====
```

Incoming:

```
#####
#####
```

```
#####
#####
```

Curr: 38.20 GBit/s  
Avg: 38.20 GBit/s  
Min: 38.17 GBit/s  
Max: 38.21 GBit/s  
Ttl: 18884.01 GByte

4 pipeline IDs

4k packet size

```
19:28:12.534523 IP rfsoc2-0.10000 > seti-node4-100g-2.10003: UDP, length 4112
19:28:12.534528 IP rfsoc2-0.10000 > seti-node4-100g-2.10001: UDP, length 4112
19:28:12.534531 IP rfsoc2-0.10000 > seti-node4-100g-2.10003: UDP, length 4112
19:28:12.534536 IP rfsoc2-0.10000 > seti-node4-100g-2.10000: UDP, length 4112
19:28:12.534539 IP rfsoc2-0.10000 > seti-node4-100g-2.10003: UDP, length 4112
19:28:12.534544 IP rfsoc2-0.10000 > seti-node4-100g-2.10001: UDP, length 4112
19:28:12.534544 IP rfsoc2-0.10000 > seti-node4-100g-2.10001: UDP, length 4112
19:28:12.534554 IP rfsoc2-0.10000 > seti-node4-100g-2.10001: UDP, length 4112
19:28:12.534554 IP rfsoc2-0.10000 > seti-node4-100g-2.10002: UDP, length 4112
```

# SETI pipeline work

- Madeleine (REU intern) extending SETI pipeline.
- Doppler acceleration search + candidate display.
- Metric to characterise candidates appear in all subarrays
- Automatization underway

