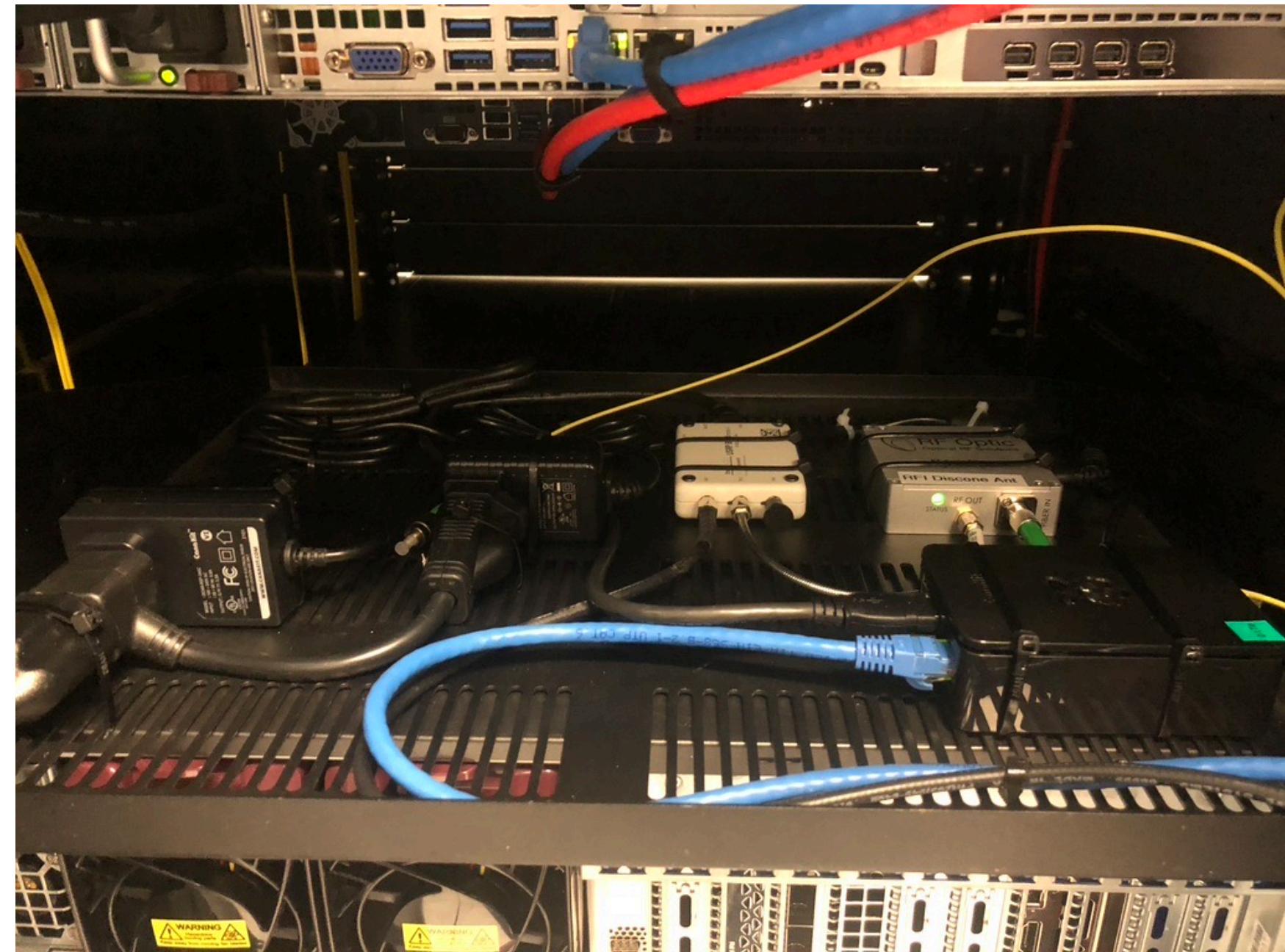


General Update

- SPR
 - Install of additional 30A sockets for rack power supply
- NRDZ
 - Additional rack for NRDZ storage nodes and equipment
 - Received USRP and RPI to connect to omnidirectional antenna
 - Need to setup NRDZ network environment (VLAN)
 - CU Boulder people will visit 28-30 of Oct.
- Other
 - Wire harness construction for Antonio Feeds
 - RFSoC Enclosure construction
- Documentation:
 - Uploaded memos to GitHub
 - In process of writing up Attemplifier and RFSoC design
- CHIME:
 - Agreement waiting to hear back from McGill
 - Geotechnical quote ready will move forward
 - Clearing field quote ready
 - Shasta County Use Permit APPROVED
- Antonio Feed
 - 6 additional feed pyramids at Global-Plating
 - Testing LNAs for new build pyramids
 - Quotes for 6 LNA modules
 - Quotes for 3 Feed bases
- Get anechoic chamber from Minex
- 2K investigation ongoing
- ATA full buildout
 - PAM design and prototype
 - PAX control board (Mike / Todd)
 - Drive box control board
 - Control box replacement PCB ordered
 - Antenna PSU retrofit

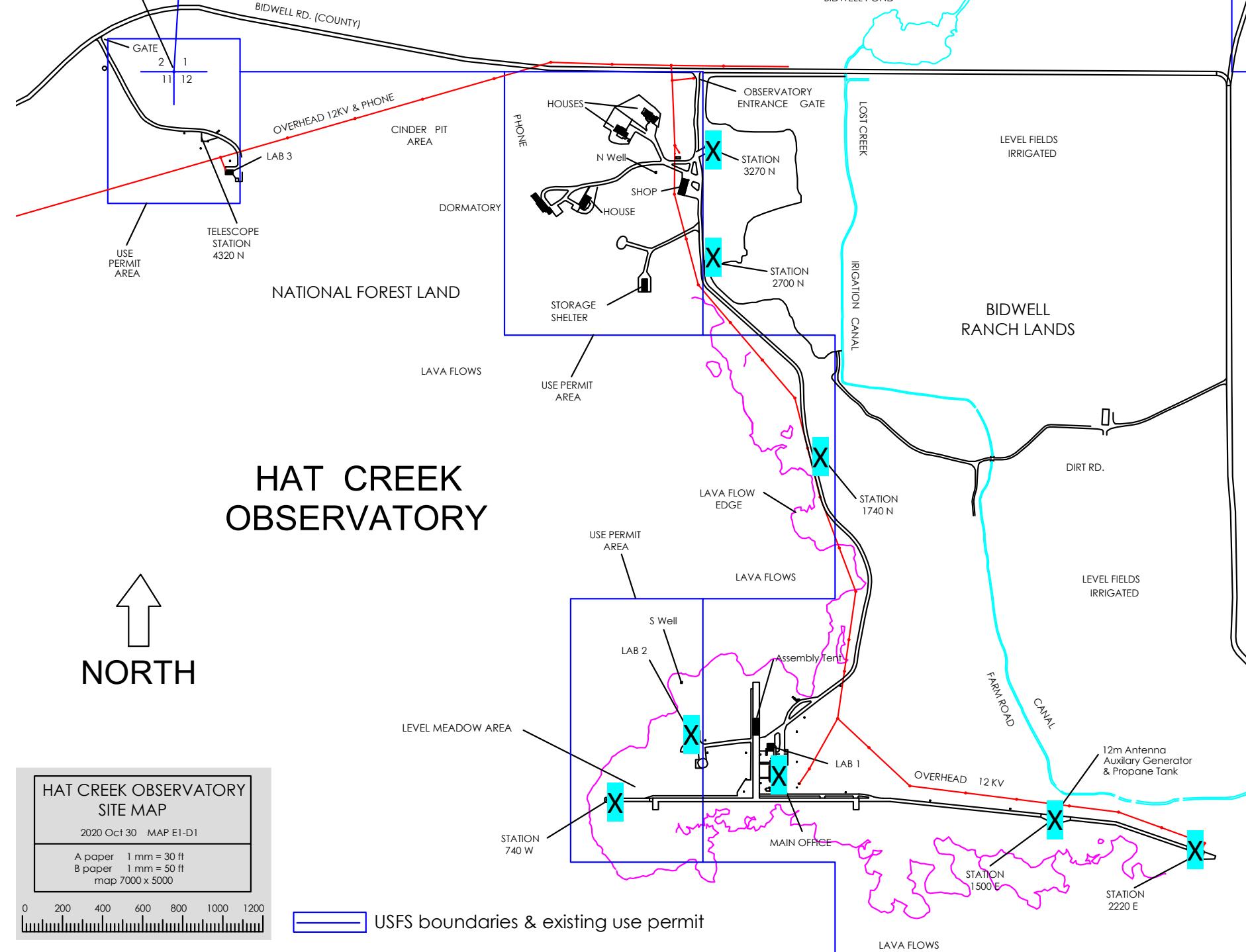
NRDZ visit:

- Network ready
- First USRP connected
- Will define the location of USRPs on the observatory



NRDZ visit:

- Network ready
- First USRP connected
- Will define the location of USRPs on the observatory
- 8 - 12 USRPs are planned



LNA allocation:

- Measured all spare LNAs
- Enough LNAs for 6 additional pyramids



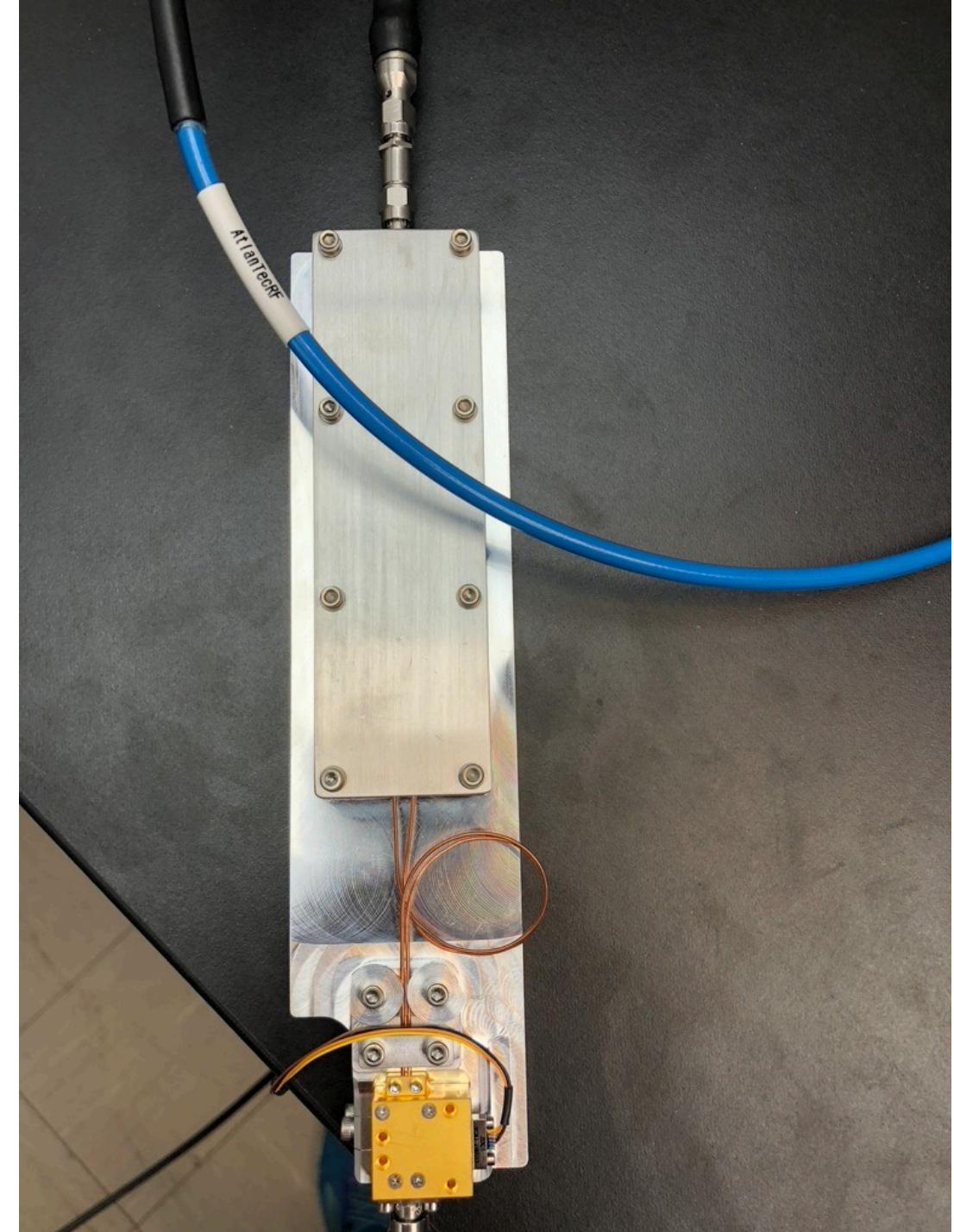
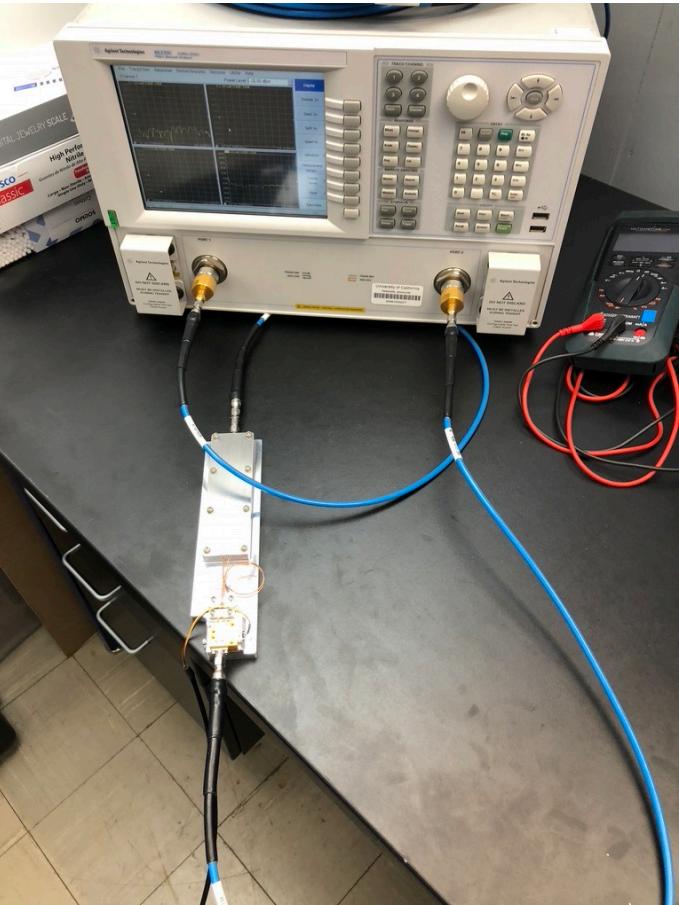
LNA allocation:

- Measured all spare LNAs
- Enough LNAs for 6 additional pyramids



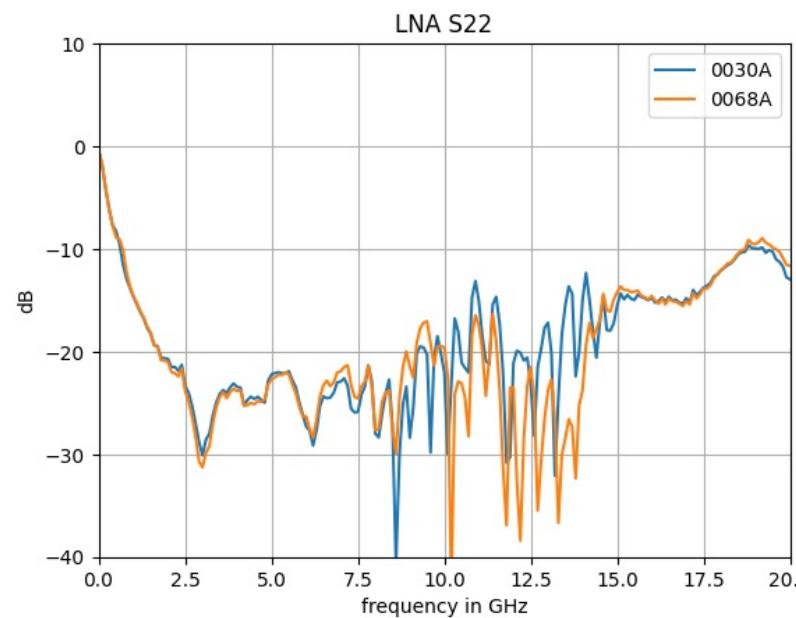
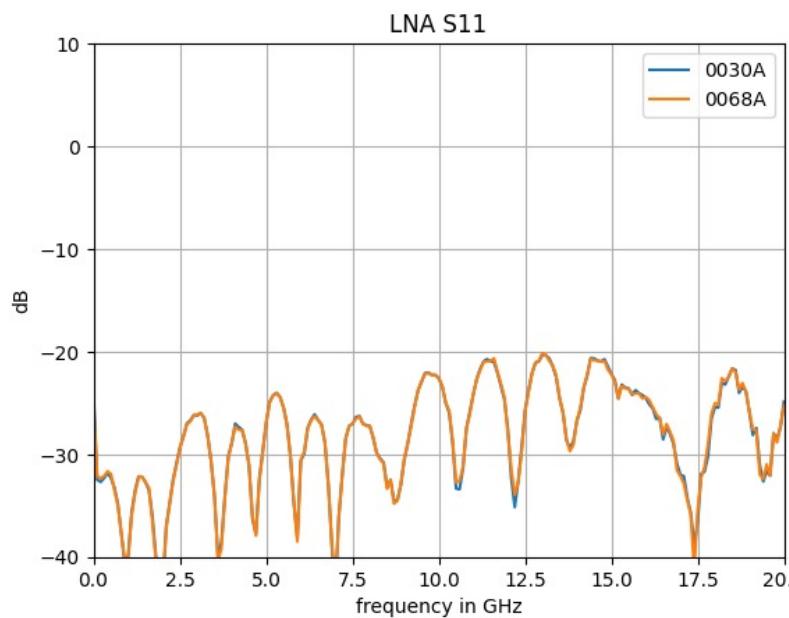
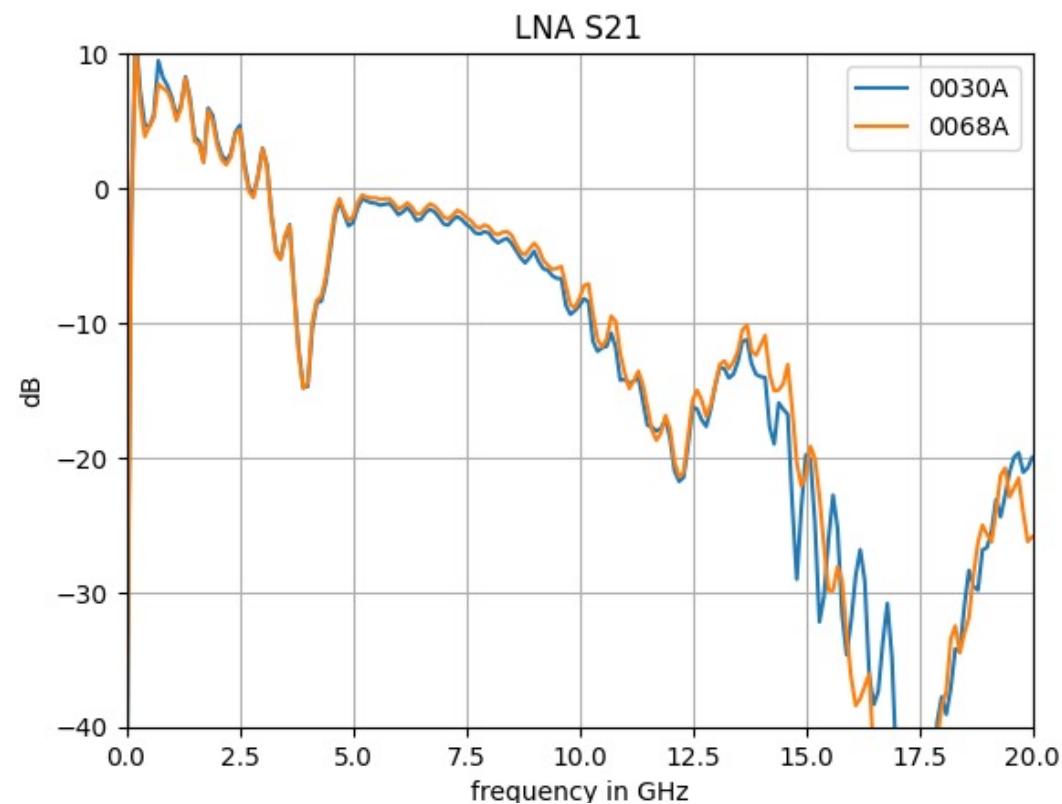
LNA allocation:

- Measured all spare LNAs
- Enough LNAs for 6 additional pyramids



LNA allocation:

- PY-024 [LNF]
- V_{ds} = 1.99V
- I_{ds} = 65.9mA
- V_{gs} = -0.7V
- V_m = -1.5V

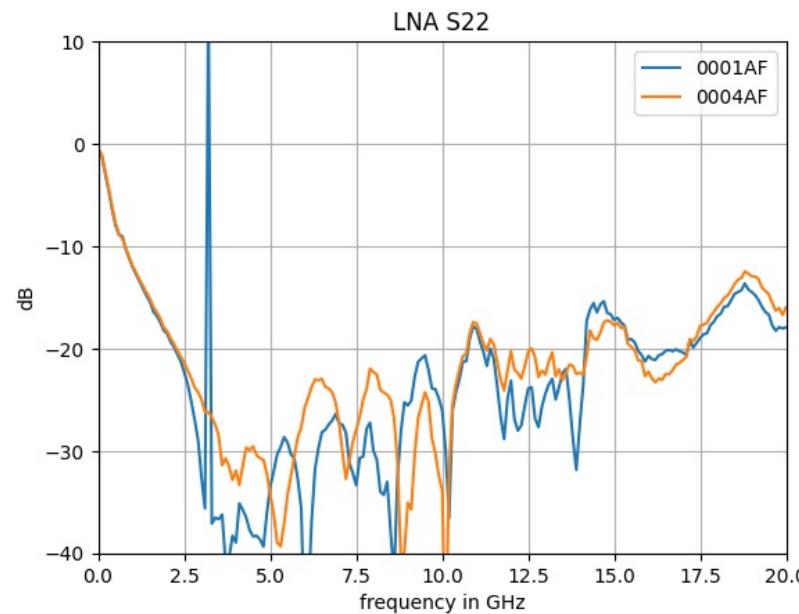
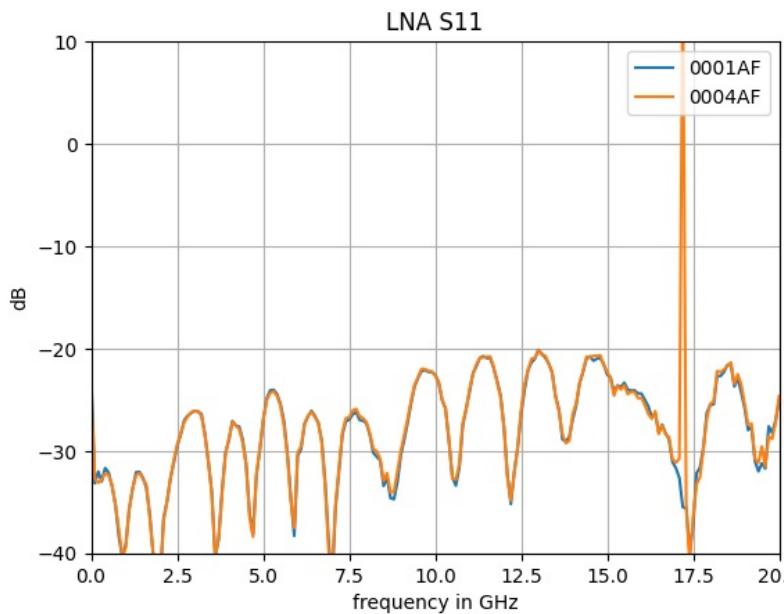
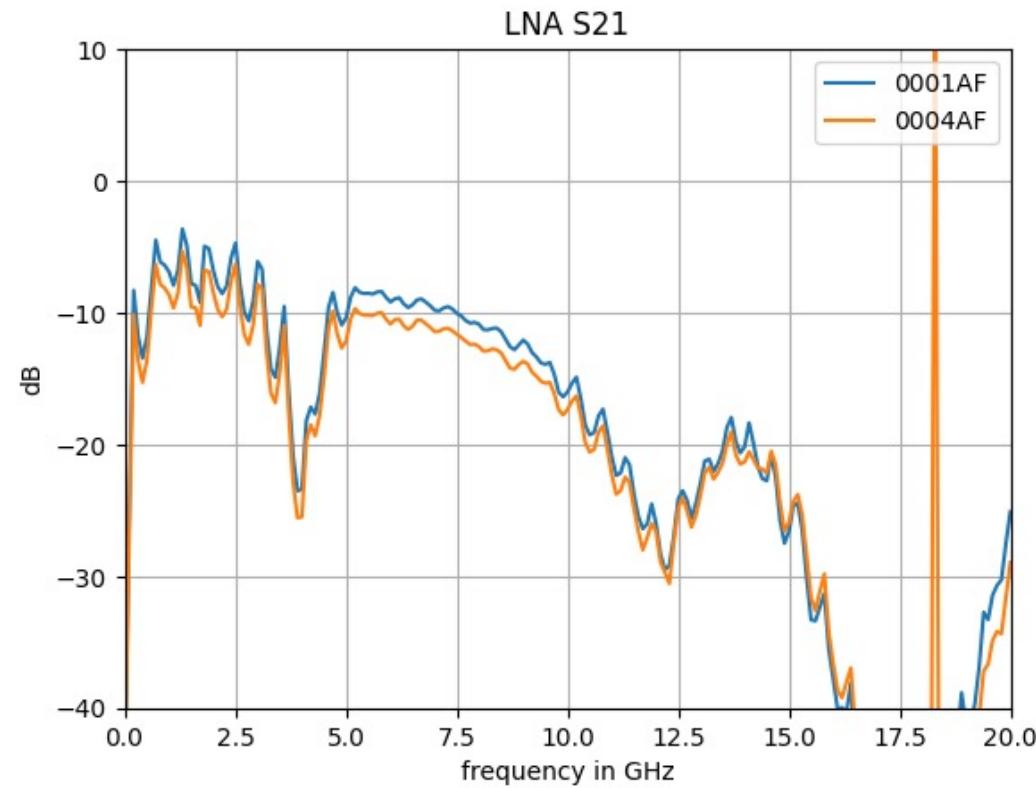


Nominal bias @ 296 K

Parameter	Value
V_{ds}	2.60 V
I_{ds}	90 mA
V_{gs}	-0.61 V
V_m	-1.70 V
I_m	-57 mA

LNA allocation:

- PY-024 [IAF]
- V_{ds} = 1.6V
- I_{ds} = 84 mA
- V_{gs} = -1.1V
- V_m = -1.2V



Nominal bias @ 296 K

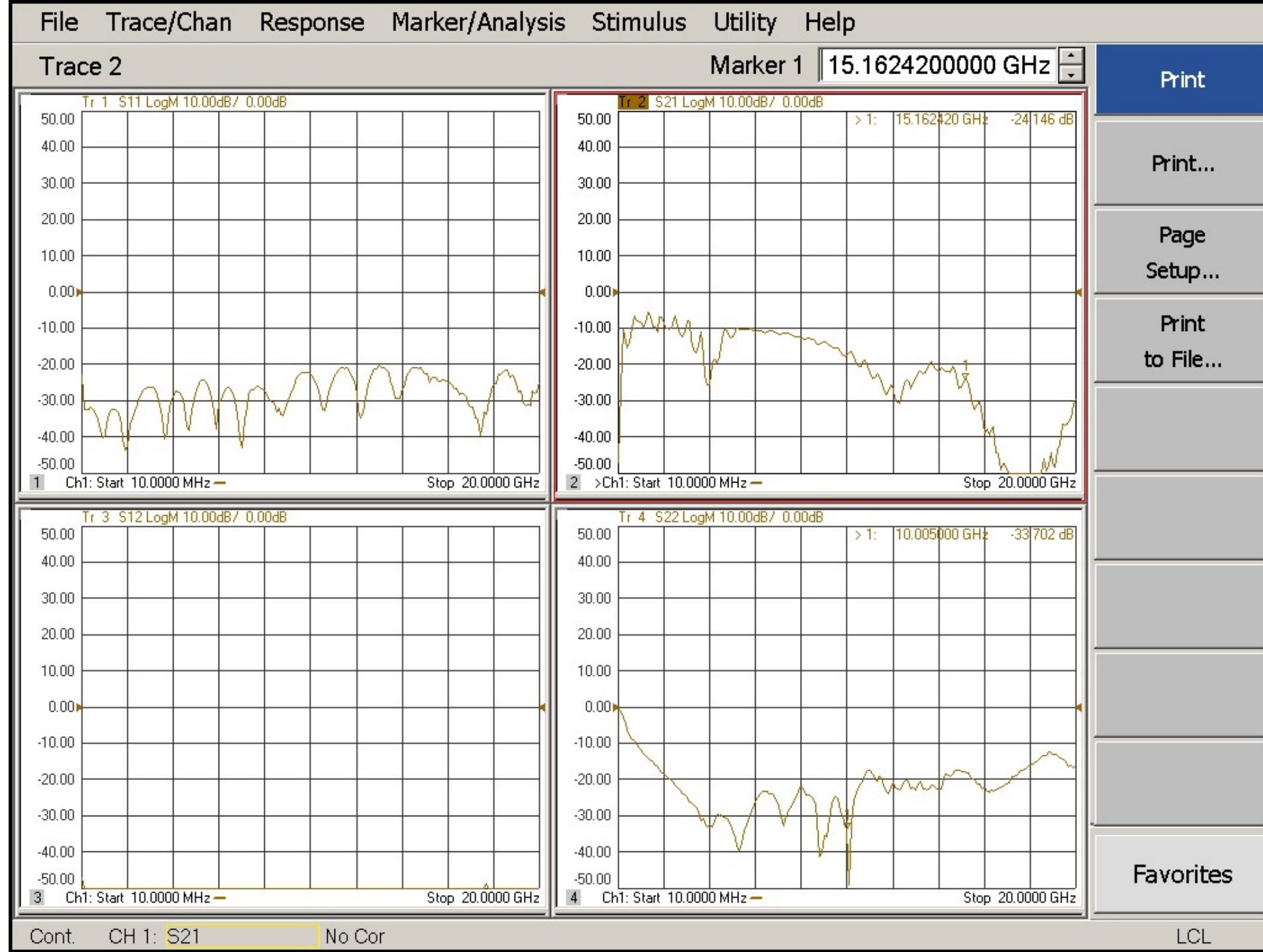
Parameter	Value
V_{ds}	1.70 V
I_{ds}	90 mA
V_{gs}	-1.34 V
V_m	-1.20 V
I_m	-58 mA

LNA allocation:

- PY-024 [IAF]
- V_{ds} = 1.6V
- I_{ds} = 84 mA
- V_{gs} = -1.1V
- V_m = -1.2V

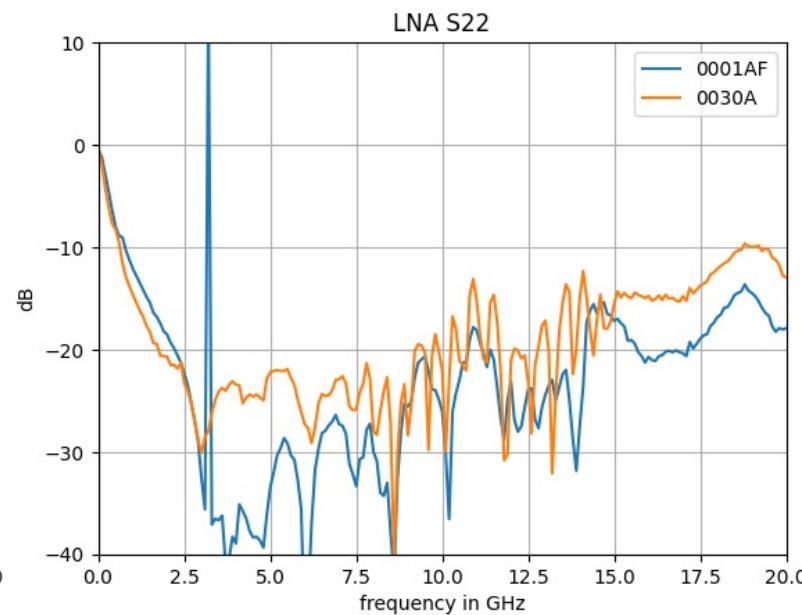
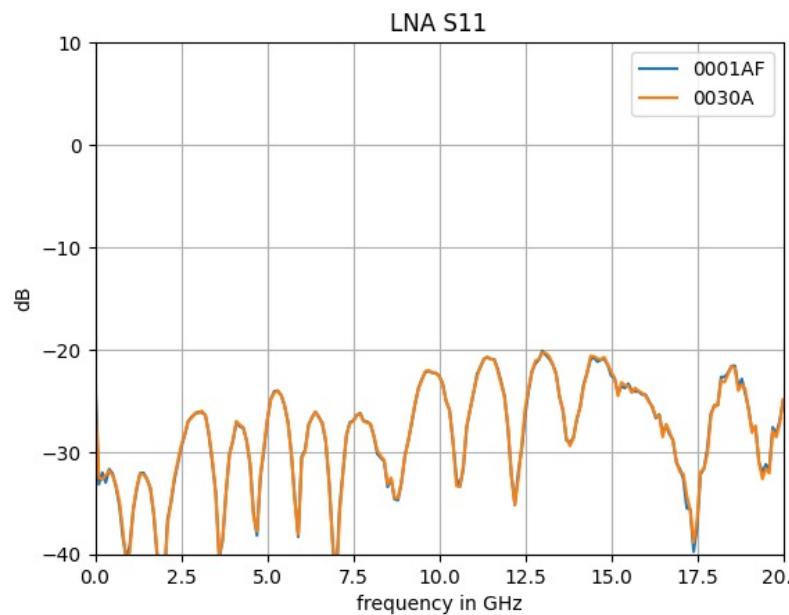
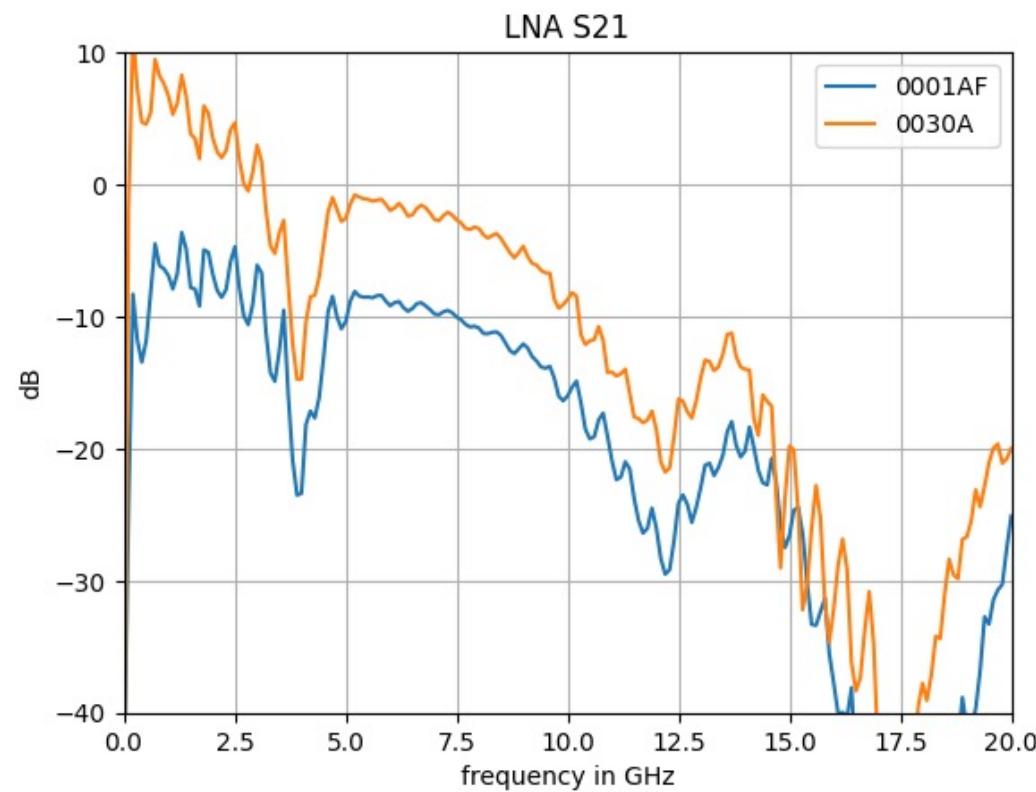
Nominal bias @ 296 K

Parameter	Value
V_{ds}	1.70 V
I_{ds}	90 mA
V_{gs}	-1.34 V
V_m	-1.20 V
I_m	-58 mA



LNA allocation:

- Fraunhofer and Low Noise Factory



LNA allocation:

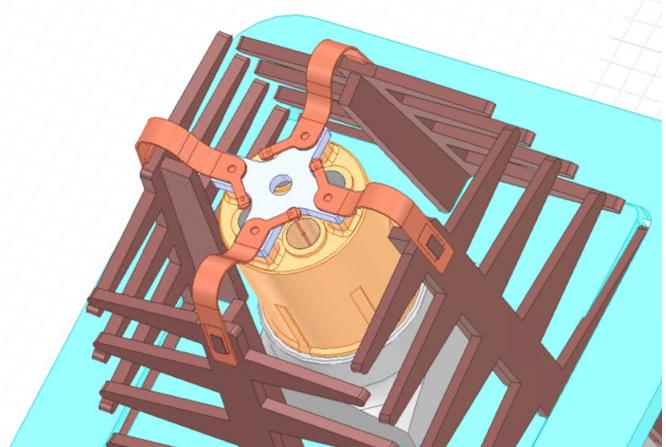
- Measured all spare LNAs

LNAs outside of feeds

Feed Lab	sn0085A	broken MMIC (crack)	
Feed Lab	sn0061A	broken wirebond	
PY-024	sn0030A		OK
PY-024	sn0068A		OK
PY-009	sn0021A	run wet, 6 month with ice	OK
PY-009	sn0019A	run wet, 6 month with ice	OK
Feed Lab	sn0013A	single LNA previous paired	OK
Feed Lab	sn0028A	from 2a broken LNA X pol	
Minex	sn0041A	from 2a broken LNA X pol	
PY-023	sn0001A	IAF LNAs	OK
PY-023	sn0004A	IAF LNAs	OK
PY-025	sn0003A	Inf LNAs	OK
PY-025	sn0002A	Inf LNAs	OK

LNA allocation:

- Measured all spare LNAs
- Enough LNAs for 6 additional pyramids



Pyramid Overview						
Number	LNA X	LNA Y	X-Y switched	Bias ID	Labeled	
PY-001	50	71	-	25mA	YES	
PY-002	55	62	YES	25mA	YES	
PY-003	12	39	-	25mA	YES	
PY-004	43	44	-	25mA	YES	
PY-005	47	52	-	25mA	-	
PY-006	75	82	-	25mA	-	
PY-007	41	99	-	25mA	YES	
PY-008	15	23	YES	25mA	YES	
PY-009	19	21		25mA		
PY-010	24	73	-	25mA	YES	
PY-011	57	59	YES	25mA	YES	
PY-012	37	56	-	25mA	-	
PY-013	53	72	-	25mA	-	
PY-014	60	64	-	25mA	YES	
PY-015	45	48	-	25mA	-	
PY-016	16	17	-	25mA	YES	
PY-017	F66	F67	-	60mA	YES	
PY-018	18	40	-	25mA	-	
PY-019	34	46	-	25mA	YES	
PY-020	83	84	-	25mA	-	
PY-021	F27	F32		60mA		
PY-022	F58	F98		60mA		
PY-023	F1	F4		60mA		
PY-024	30	68		25mA		
PY-025	3	2		25mA		

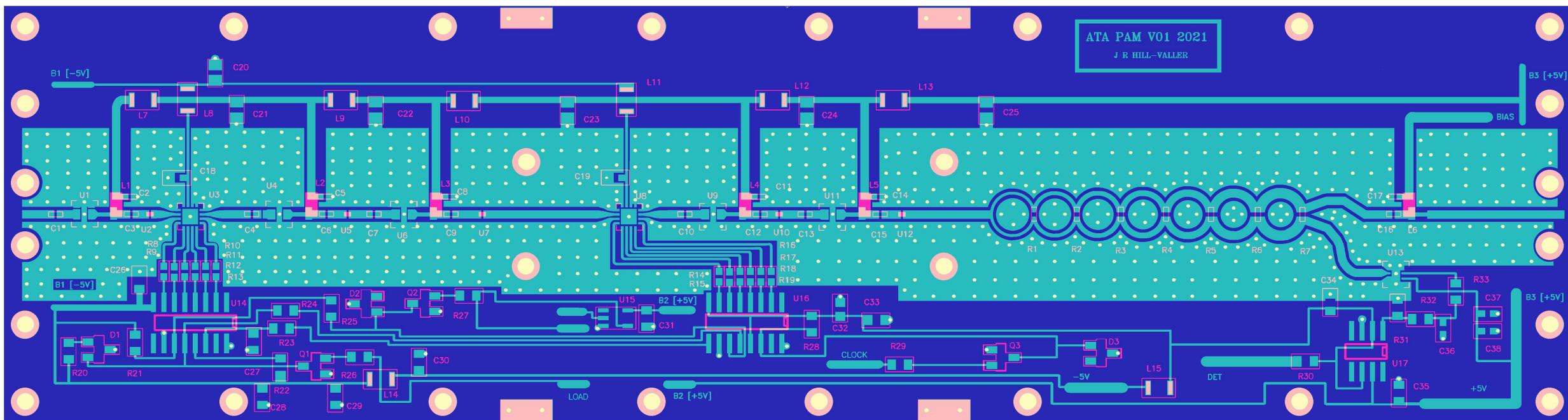
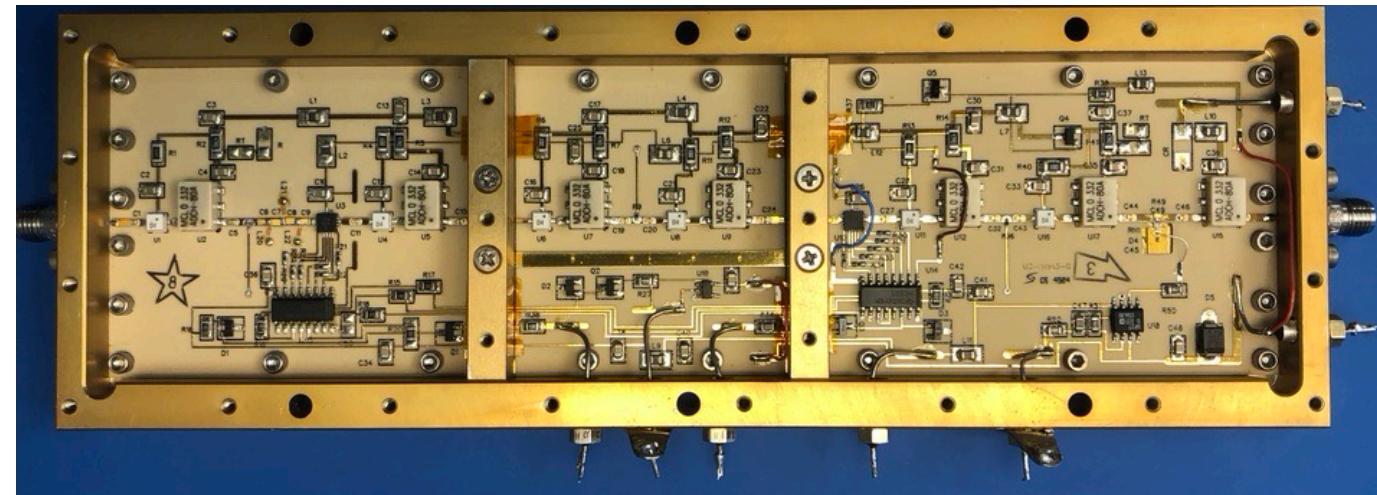
LNA allocation:

- Measured all spare LNAs
- Enough LNAs for 6 additional pyramids
- Will be delivered to Minex next week



PAM Prototype:

- Parts ready to be ordered.
- 2 prototype boards of current design
- Based on the tests of the prototype we will modify the design.
- Going over simulation model for new PAM



2K investigation :

- No obvious mechanical issue
- Repeated pointing on geostationary satellite with repeatable results
- Antonio Feed runs smooth, little vibration
- Maybe the alignment of the feed in the vertical axis could be off, needs further assessment.

