General Update

- Attemplifier Module Design

- SPR
  - Ordered cable management for Analog Racks

  - VNA measurement of RFCBs
  - Investigate IF ripples

  - 3L, 2B Power measurement after RF 4-way splitter
  - 3L, 2B Power measurement after RF 4-way splitter using CW

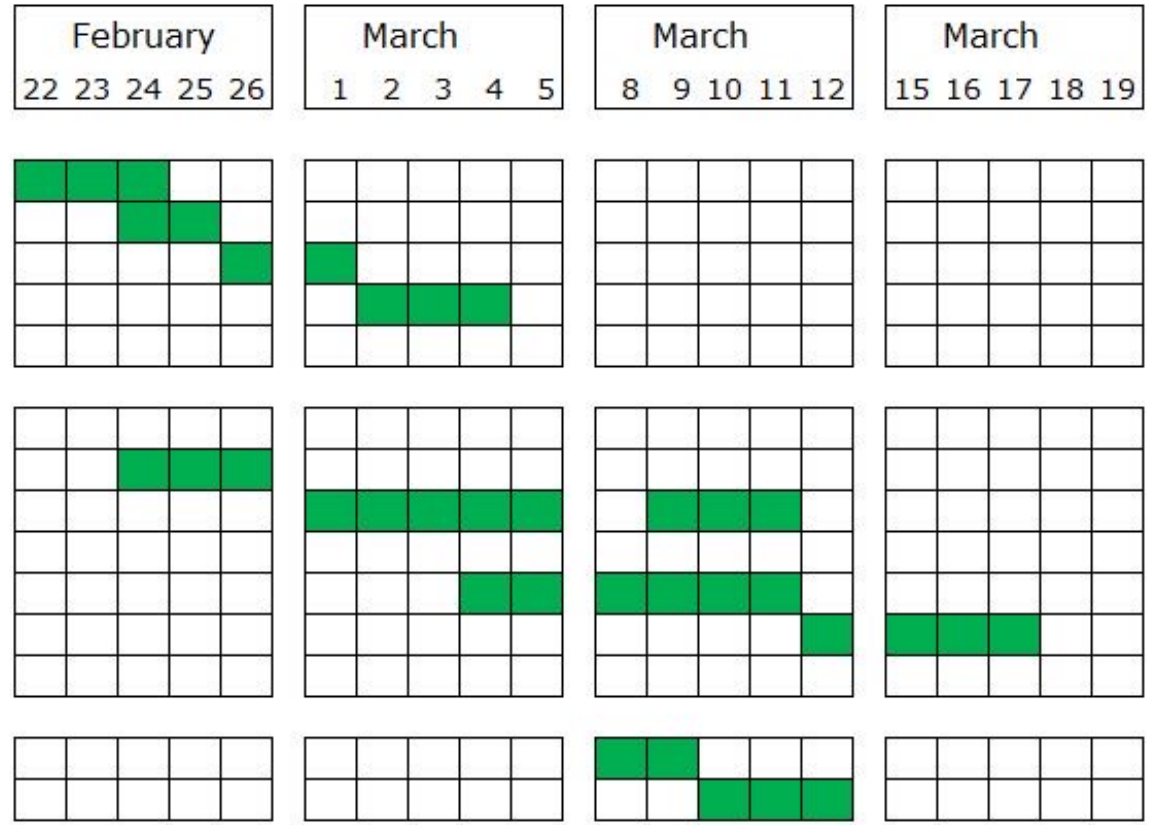
- Antonio Feed

  - 6 SS coax cables from LNA to base ARRIVED
  - LNAs should be delivered in two weeks

Feed List		Feed Revision Overview							
Number	Installed Ant.	Tip-Link: R03	Temp S. Isolation	New Harness	Bellow Removed	Cryo Tuned	Firmware 5.4	Gold-Plated	Preconditioned Coax
5C4-002	Feed Lab								
5C4-003	Feed Lab		x	x	x	x	x		
5C4-004	2B	x	x	x	x	x	x	x	x
5C4-005	2A								
5C4-006	4J	x	x	x	x	x	x	x	x
5C4-007	3L	x	x	x	x	x	x	x	x
5C4-008	Feed Lab (1G)		x	x	x	x	x		
5C4-009	Feed Lab		x	x	x	x	x		
5C4-010	Feed Lab	MINEX	x	x	x	x	x	x	MINEX
5C4-011	Feed Lab (3L)	MINEX	x	x	x	x	x	x	MINEX
5C4-012	1K	x	x	x	x	x	x	x	NA
5C4-013	1H	x	x	x	x	x	x	x	x
5C4-014	Feed Lab (2J)	MINEX	x	x	x	x	x	x	MINEX
5C4-015	Feed Lab		x	x	x	x	x		
5C4-016	2E	x	x	x	x	x	x	x	x
5C4-017	Feed Lab		x	x	x	In Progress	x		
5C4-018	2H	x	x	x	x	x	x	x	NA
5C4-019	1C		x	x	x	x			
5C4-020	3C	x	x	x	x	x	x	x	x

Minex Engineering Schedule for SETI Work:

Quote	Purchase	Qty	Description
	PO 3600	40 ea	Fabricate new coax cables.
		3 ea	Install new coax on existing LNAs.
		3 ea	Fabricate new LNA Modules.
		3 ea	Feed complete with Modules & tip links.
			Feed SN 008, 011, 014
			Recive new LNAs and modify coax.
210201A	PO 3626	6 ea	Prep pyramid & arms for plating.
		6 ea	Pyramids & arms to plater.
			Feed SN 001, 003, 010, 016, 017, ???
210202A	PO 3627	6 ea	Fabricate new LNA Modules.
		6 ea	Feed complete with Modules & tip links.
			Feed SN 001, 003, 010, 016, 017, ???
210203A	PO 3628	6 ea	Pyramid, solder and complete.
		6 ea	Arm sets, solder and complete.

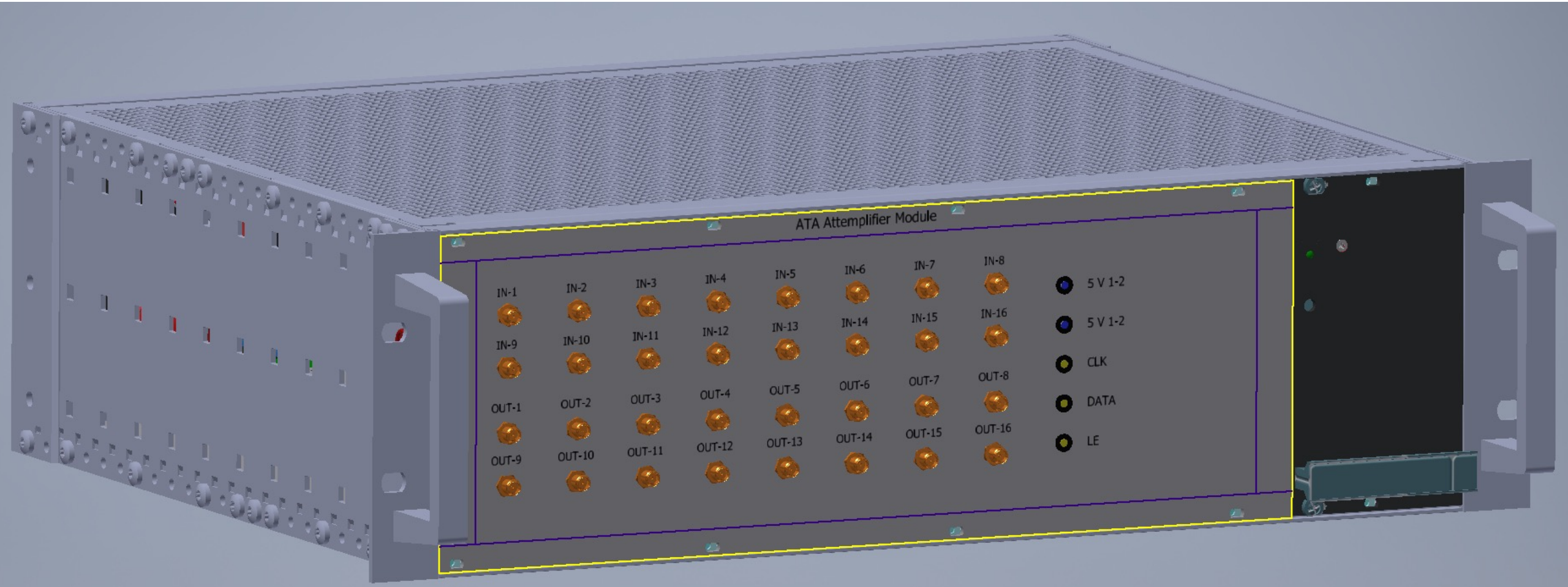


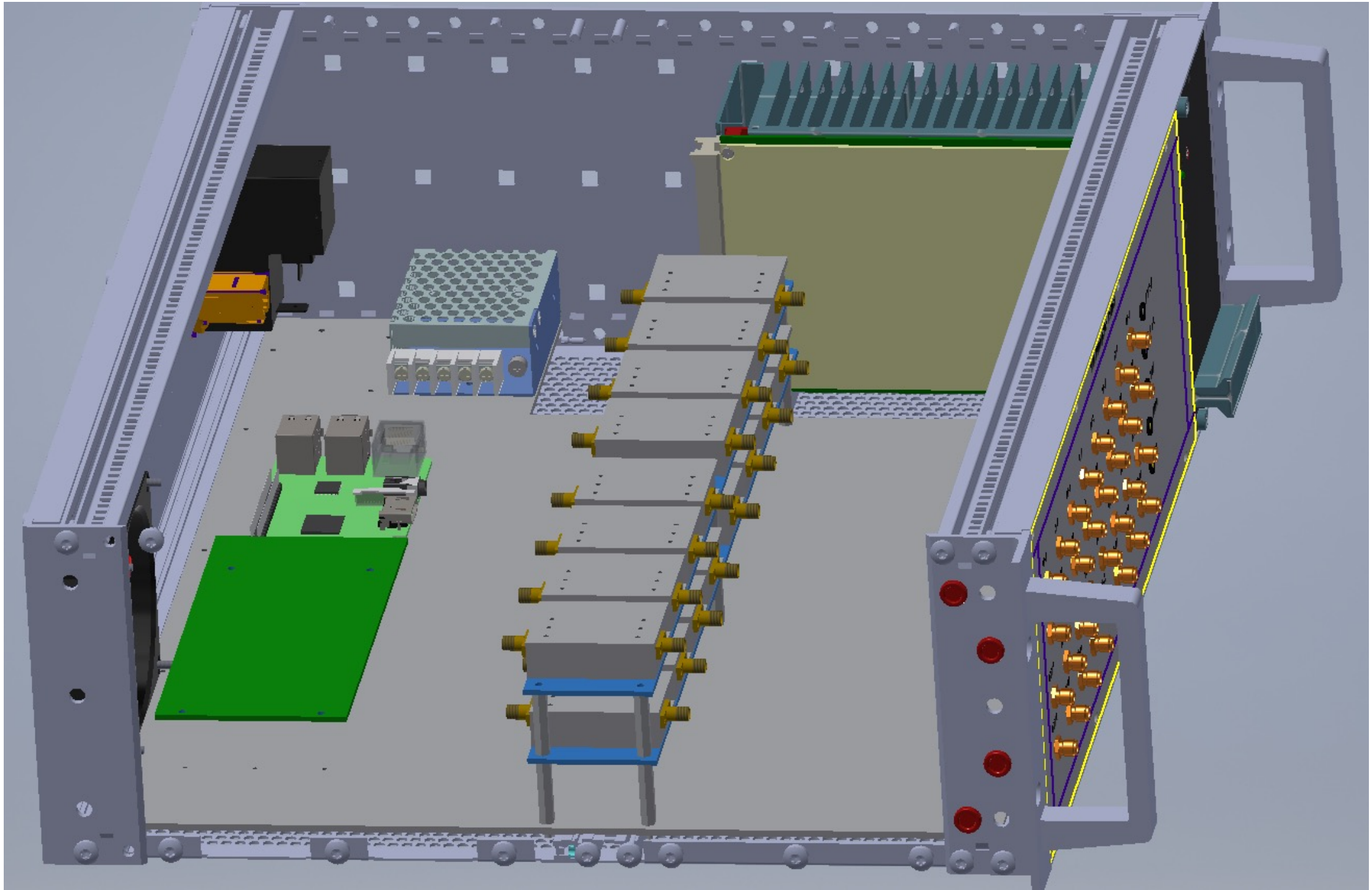
RFSoC

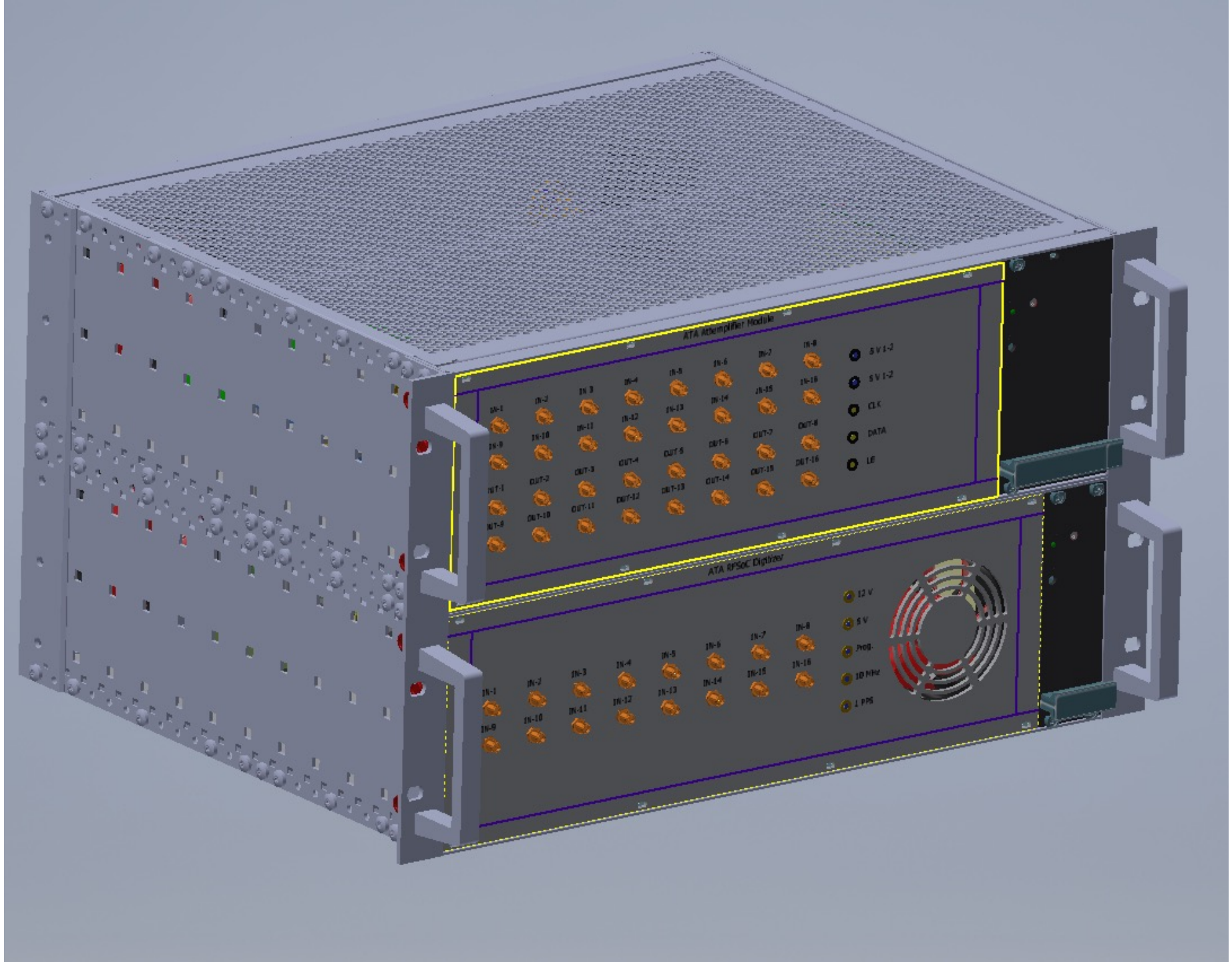
- Programmed Gateware with JTAG

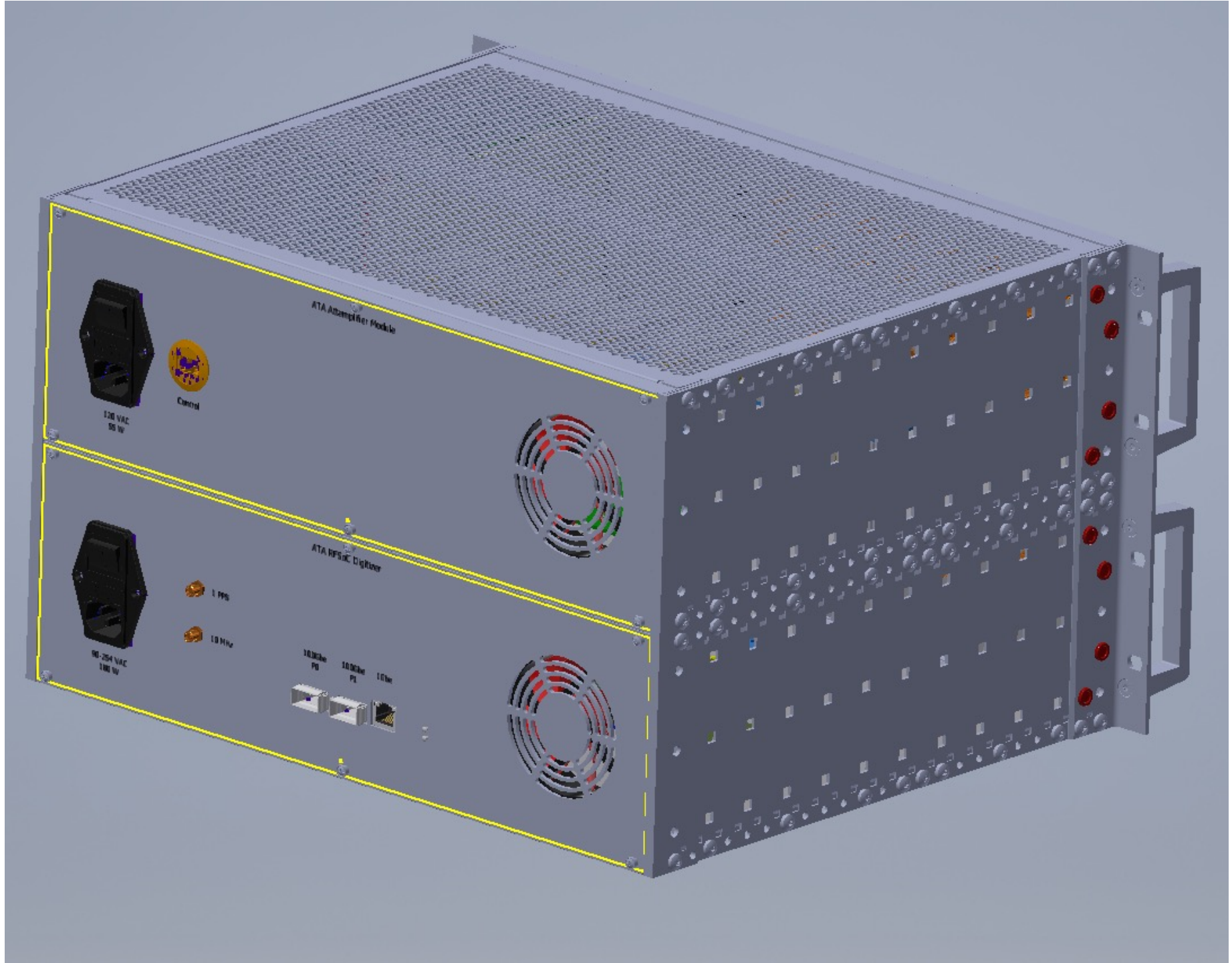
Attemplifier Module

- Design DONE
- Parts ORDERED



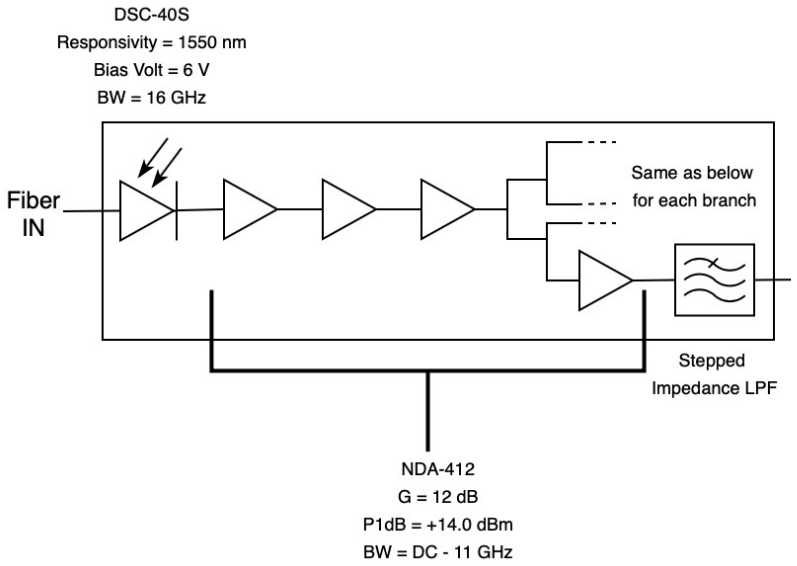


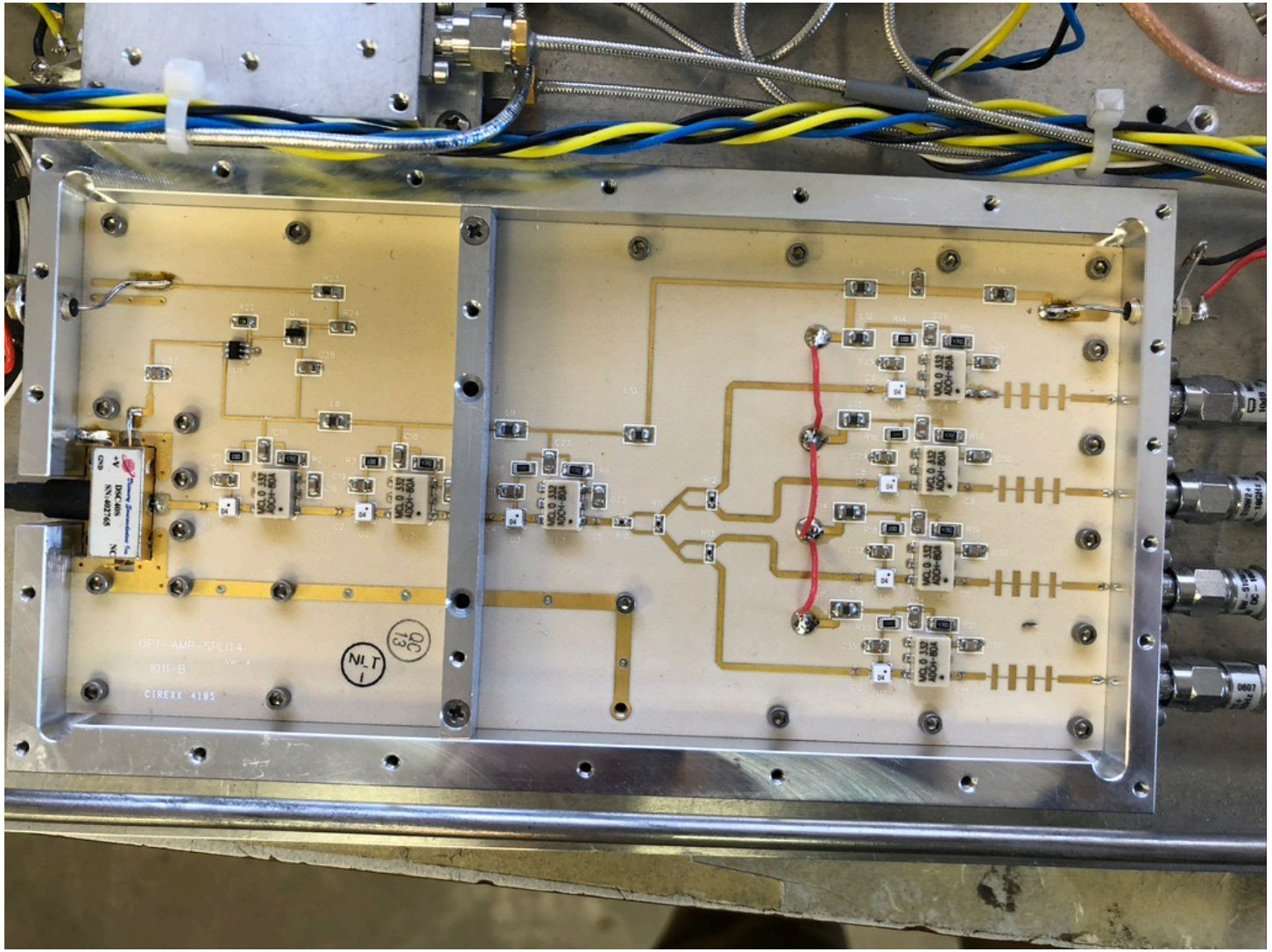

ATA Attenuator Module
IN-1
IN-2
IN-3
IN-4
IN-5
IN-6
IN-7
IN-8
IN-9
IN-10
IN-11
IN-12
IN-13
IN-14
IN-15
IN-16
OUT-1
OUT-2
OUT-3
OUT-4
OUT-5
OUT-6
OUT-7
OUT-8
OUT-9
OUT-10
OUT-11
OUT-12
OUT-13
OUT-14
OUT-15
OUT-16
5 V 1-2
5 V 1-2
CLK
DATA
LE
ATA RFSoC Digitizer
IN-1
IN-2
IN-3
IN-4
IN-5
IN-6
IN-7
IN-8
IN-9
IN-10
IN-11
IN-12
IN-13
IN-14
IN-15
IN-16
12 V
5 V
PPS
10 MHz
1 PPS


ATA Amplifier Module
120 VAC
95 W
Caution
ATA RFSoC Digitizer
90-254 VAC
180 W
1 PPS
10 MHz

RFCB Measurements

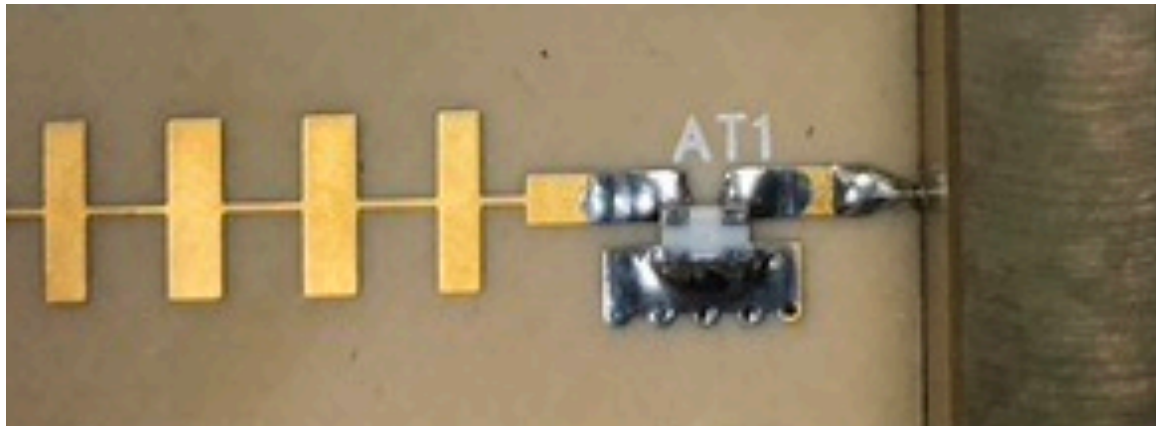
- Different fiber detector designs

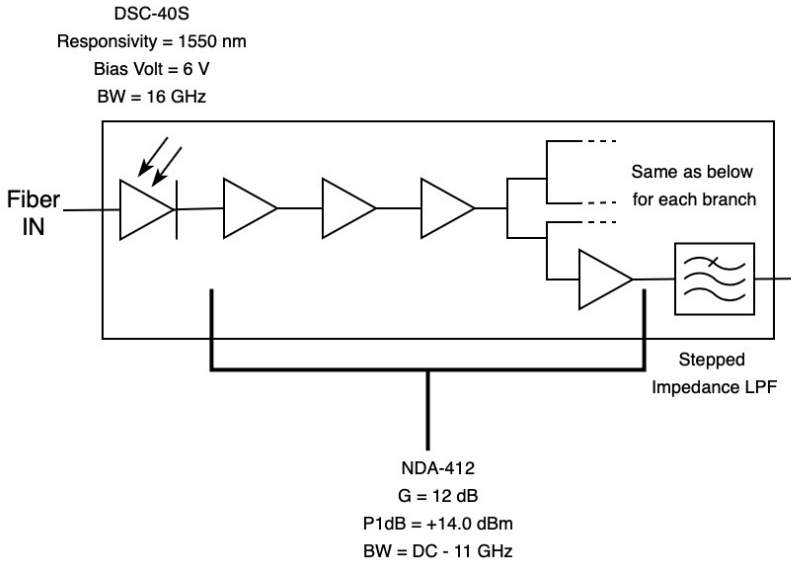


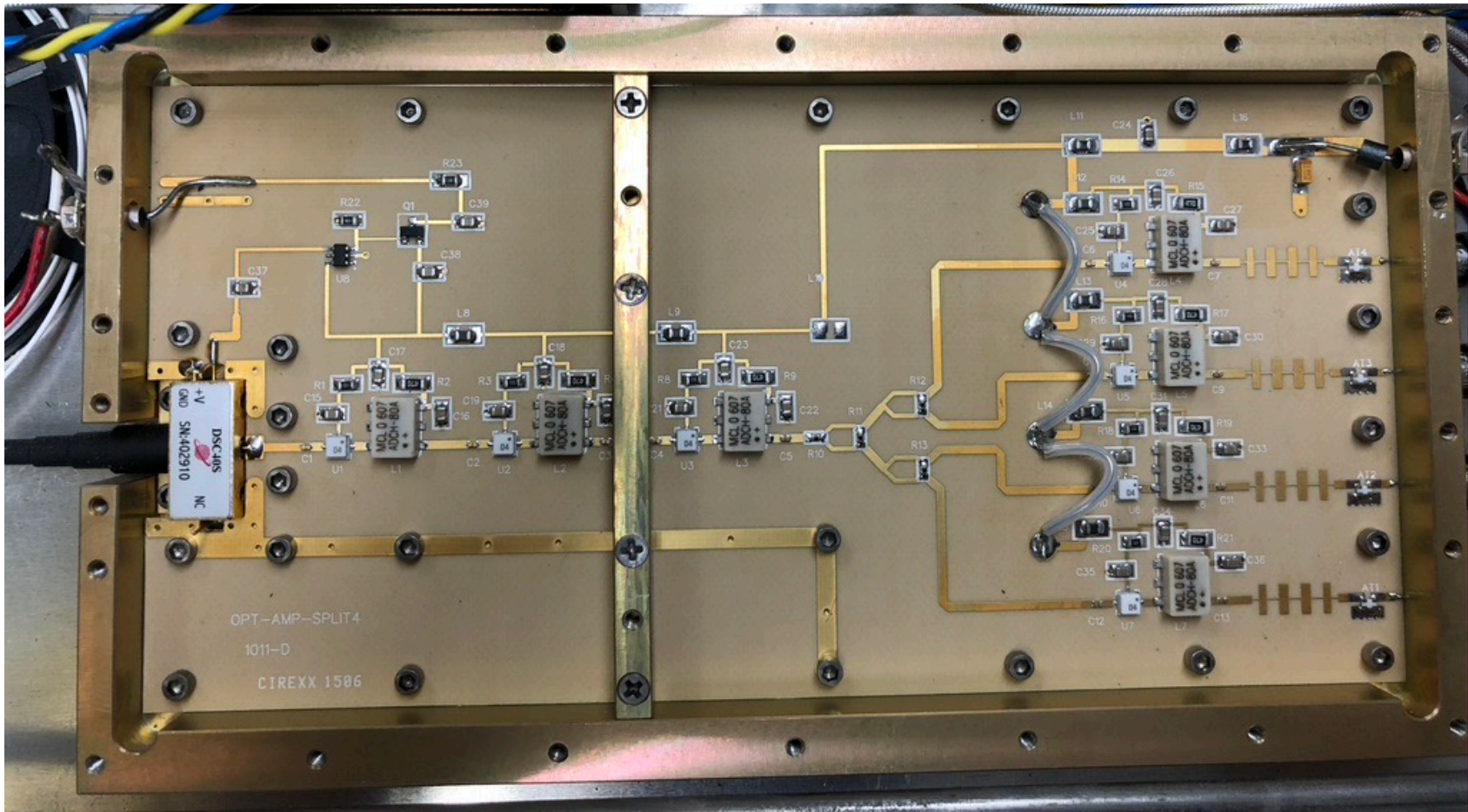


RFCB Measurements

- Different fiber detector designs







Power Measurement

- 3C: -2.7dBm
- 3L: -7.6dBm
- 2B: -15.4dBm [-5.4dBm]

Component	Gain dB	Power at this stage (dBm)	Measured Power (dBm)	(P1dB)	Dynamic Range (dB)
Bandwith red. 12/15 GHz	-1.000	-47.97		-	-
NDA-412	12.000	-35.93		14.00	49.93
Filter	-3.000	-38.93		-	-
HMC424	-4.000	-42.93		22.00	64.93
NDA-412	12.000	-30.92		14.00	44.92
Slope Compensator	-2.000	-32.92		-	-
NDA-412	12.000	-20.92		14.00	34.92
Slope Compensator	-2.000	-22.92		-	-
NDA-412	12.000	-10.92		14.00	24.92
HMC424	-20.000	-30.92		22.00	52.92
NDA-412	12.000	-18.92		14.00	32.92
Slope Compensator	-2.000	-20.92		-	-
NDA-412	12.000	-8.92		14.00	22.92
PAM output cable to OTX	0.000	-8.92		-	-
NX8560LJ-CC189	0.000	-8.92	-10.10	11.60	20.52
Fiber cable	-35.000	-43.86		-	-
DSC-40S	0.000	-43.86		-	-
NDA-412	12.000	-31.85		14.00	45.85
NDA-412	12.000	-19.85		14.00	33.85
NDA-412	12.000	-7.85		14.00	21.85
4-way Wilkinson Divider	-6.000	-13.85		-	-
NDA-412	12.000	-1.85		14.00	15.85
Stepped Impedance Filter	-1.000	-2.85	-2.70	-	-
Fixed Attenuator	-10.000	-12.85		-	-
HMC260	-7.500	-20.35		12.00	32.35
BPF 700MHz	-3.500	-23.85		-	-
Bandwith red. 0.7/12 GHz	-12.300	-36.15		-	-
HMC516	20.500	-15.65		14.00	29.65
HMC412	-8.000	-23.65		11.50	35.15
SGA-2286	15.000	-8.65		8.30	16.95
RFCB output cable	-0.100	-8.75	0.0|-8.0|-12.2|-8.6	-	-

1GHz | 2GHz | 5GHz | 10GHz

Engineering Down Time:

- Replace LO cables
- Replace fan power cable
- Install PDU RFCB rack
- Replace PDU central network rack