**Feed Status**

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| --- | --- |
| Document last update | 2019-01-02 |
| Feed ser. num (rev) | 5C4-002-A |
| Last worked on | 2018-11-06 |
| Antenna ( previous/current ) | Ant. 4J 1E |
| Original build date | 2015-01-01 |
| Number of cooldown cycles | 3 (2018-06-01) |
|  |  |

**Critical Component Summary**

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| --- | --- |
| ATA Feed  Control Board | S.N. 27a |
| Sunpower CryoTel GT  Cryocooler | S.N. GT15-18 |
| Sunpower GT Gen II  Cryo Controller | S.N. 50031135039 |
| Pfeiffer Hi Pace 80  Turbo Pump | S.N. 15763938 |
| Pfeiffer TC 110  Electronic Drive Unit | S.N. 73034469 |
| Pfeiffer MVP 006-4  Diaphragm Pump | S.N. 28413301  ~~S.N. 28413332~~ |
| H.S. Martin  Borosilicate Glass Radome | S.N. 004 |

**LNA Summary**

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| X Pole LNF LNA | S.N. C-0055A |
| Biasing Minex | Vm -.50v / Vg .09v / Vd 1.20v / Id 25.4ma |
|  | |
| Y Pole LNF LNA | S.N. C-0062A |
| Biasing Minex | Vm -.50v / Vg -.01v / Vd 1.20v / Id 25.4ma |

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| **Chassis Up-Dates** | **Vac & Cryo Up-Dates** |
| 15 pin Hermetic Feedthur Filter | RTD Wire Routing |
| 48v Through Control Board | Buna-n O-Rings |
| Vibration System (Metal Flex) | Turbo Centering Ring w/Screen |
| Control Board 12v Jumper |  |
| Control Board Firmware 3.12 |  |
| Foreline/Valve Layout Change |  |
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**HISTORY**

2015-03-27 Systems Test, had problems with: Pfeiffer Control Parameters, Diaphragm pump (not running in intermittend mode) and fan speed (running slow). Vac & Cryo systems working (8.5e-06/201K), data log saved. Need to contact Rob A. about Control Board issues.

2015-08-14 Rob A’s board latest software & 12v jumper (rev a on board sn), Cooler vibration system up-date, Metal Flex bellows 347/304ss, vac gage removed, emi filter at hermetic d-sub up-date, Viton O-rings at SS base plate & borosilicate glass installed. Noise test completed very good results, vac & cryo working properly (data saved), HC PAX set-up & installed.

2015-08-18 Delivered to HC (1of2), installed on antenna 4J, 24+48v power supply up-dates added to Rim Box, Turbo & Cryo working properly, X pole poor performance, Y pole very good.

2015-08-24 Feed Test Report sent to HC (Elin).

2015-12-17 Control Board firmware up-dated to 3.12 at Hat Creek.

2018-06-01? Jon Richards had Mark move this Feed from Antenna 4J to 1E for testing reasons.

2018-08-01 HC Trip Rob S., Feed has a very loud Diaphragm pump but cooling to 67K/240watts, Vac 90k/16watts, ran out of time & parts, will replace the Diaphragm pump when we return in the fall to install new Feeds.

2018-10-26 Feed delivered from Hat Creek by Jon Richards (3of4).

2018-10-(30-31) Removed Feed from transport box into Screen room, checked LNA’s condition, both poles have structure (data saves), biasing working properly (x -.50\_.08\_1.20\_40.9)

(y -.50\_.07\_1.20\_41.8), started pumpdown, Turbo stalled out at 12krpms, Diaphragm pump not running?, changed out Diaphragm pump & working properly, started pumpdown, Turbo stalled out at 26krpms, ran Diaphragm pump all night on hi-speed. Started pumpdown, got to 90krpms in 5min, Turbo working ok (90k/10w)(data saved), started cooldown but stopped once it looked correct (266K/301K/82watts)(data saved). Turned off Feed & set aside for inspection of tip.

2018-11-06 Removed Glass to inspect Pyramid & Tip, signs of some vibration, some Rexolite dust (stand-offs), all 4 sides of the Tip have damage (data saved), no signs of moisture, inside of enclosure dusty, Feed has been in continuous use sense 8/2015.

2019-01-02