**Feed Status**

|  |  |
| --- | --- |
| Document last update | 2021-06-28 |
| Feed ser. num. (rev) | 5C4-003-A |
| Last worked on | 2018-08-01 |
| Locations (previous/current) | 5B, 1G |
| Original build date | 2015-01-01 |
| Number of cooldown cycles | 5 (2018-07-31) |
|  |  |

**Critical Component Summary**

|  |  |
| --- | --- |
| ATA Feed  Control Board | S.N. 23a |
| Sunpower CryoTel GT  Cryocooler | S.N. GT15-20 |
| Sunpower GT Gen II  Cryo Controller | S.N. 50031135081 |
| Pfeiffer Hi Pace 80  Turbo Pump | S.N. 15763570 |
| Pfeiffer TC 110  Electronic Drive Unit | S.N. 73034575 |
| Pfeiffer MVP 006-4  Diaphragm Pump | S.N. ~~28409694~~  28377306 |
| H.S. Martin  Borosilicate Glass Radome | S.N. 005 |
| Pyramid | S.N. 007 |

**Retrofits**

|  |  |
| --- | --- |
| Temp S. Isolation | X |
| New Wire Harness | X |
| Bellow Removed | X |
| Cryo Tuned | X |
| Firmware 5.4 | X |

**Vibration Measurements**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Before Tuning | Tuned | Re-tune #1 | Re-tune #2 | Re-tune #3 |
| X | 0.20 | 0.05 |  |  |  |
| Y | 0.07 | 0.05 |  |  |  |
| Z | 0.20 | 0.12 |  |  |  |

|  |  |
| --- | --- |
| **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 |  |
|  |  |
|  |  |
|  |  |

**HISTORY**

2015-03-30 Systems Test, had problems with: Pfeiffer Control Parameters, Diaphragm pump(not running in intermittend mode), temp sensors, amber light flashing on turbo(error code wrn117) and fan speed(running slow). Vac & Cryo systems working (4.5e-06/188K), data log saved. Need to contact Rob A. about Control Board issues.

2015-08-01 One 034 coax pulled trace off of substrate in LNA (-039), handled to much & clamp lost tension, re-installed with support pieces, used grit under clamp to secure coax, result of repair both coax are matched but short, LNA is working fine.

Tip assembly shorter as a result also, BeCu links will have a different radius. Tip Hub is grounded by spring tension, not soldered.

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(2of2), installed on antenna 5B, 24 & 48v power supply up-dates added to Rim Box, all systems working properly.

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

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

**-----------------------------------------------------------------------------------------------------------**

2018-07-31 HC Trip Rob S. Feeds has been off for 6 months, Vac system won’t start-up properly, Diaphragms pump loud & fluctuating, inspected, tried multiple start-ups with no success. Replaced Diaphragm pump, Diaphragm pump & Turbo started up correctly, Turbo reached 90k rpms at 14watts, Cryo cooler started & reached 65K at 230watts in 6-7 hrs. Foreline valve/system up-dated.

2018-08-01 Feed working properly & Elin has it back in the system.