**Description**

This is a retrofitted Antonio feed. It includes at control board, diaphragm pump, turbo pump, cryo cooler, fan, base plate, glass dome, pyramid, and wire harness. Note that the diaphragm pump is an MVP 006-4 and therefore uses the older diaphragm to control board wire harness and does NOT have a control board modification.

**Feed Status**

|  |  |
| --- | --- |
| Document last update | 2021-06-03 |
| Feed ser. num. (rev) | 5C4-004-A |
| Last worked on | 2015-10-20 |
| Antenna (previous/current) | 2E, 2B |
| Original build date | 2015-09-08 |
| Number of cooldown cycles | 2 (2016-02-04) |
|  |  |

**Critical Component Summary**

|  |  |
| --- | --- |
| ATA Feed  Control Board | S.N. 26a |
| Sunpower CryoTel GT  Cryocooler | S.N. GT15-126 |
| Sunpower GT Gen II  Cryo Controller | S.N. 50031135066 |
| Pfeiffer Hi Pace 80  Turbo Pump | S.N. 15861443 |
| Pfeiffer TC 110  Electronic Drive Unit | S.N. 74481415 |
| Pfeiffer MVP 006-4  Diaphragm Pump | S.N. 28413325 |
| H.S. Martin  Borosilicate Glass Radome | S.N. 009 |
| Pyramid | S.N. 002 |

**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 | 0.09 | 0.07 |  |  |  |
| Y | 0.07 | 0.04 |  |  |  |
| Z | 0.26 | 0.16 |  |  |  |

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

2015-10-01 Chassis, Cooler vibration system up-date, Metal Flex bellows 347/304ss, cryo cooler, vacuum system, pax box & basic wire completed. Some sub-assemblies completed for Pyramid/LNA assembly. LNA 0043 bias connector loose on base plate, Matt says go ahead anyway. When powered down to move to screen room cooler began driving on its own. We reapplied power and set TTARGET to 70K, waited till 70K, power down worked with no backdrive. When in screen room power up cooler came on but p010=0. Not sure how this can be, getfeedstartmode was manual. Dome is 009 typical 0.046” thick and nice fit on band clamp. X & Y poles Vg adjustments did not work. Error in cable FH17 at 8 pin quench connector Yel & Blk swapped 2 places. A correction was made at FH15 dewar connector, pins 2 & 4 were swapped and pins 6 & 8 were swapped. Also turbo made rubbing noise during rotation of feed from vertical to horizontal.

2015-10-22 Delivered to HC(1of3), installed on antenna 2E, 24+48v power supply up-dates added to Rim Box, all systems working properly.

2015-10-29 Feed Test Report sent to HC (Elin).

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