Minutes for AMiBA Engineering Telecom 20070809, UTC 2:00

Regular Meeting Time: UTC 2:00 Every Thursday
USA Dial-in = 1-877-505-6247; passcode 8339148 #; mod_code 2917771 #
Outside USA Dial-in = 1 630 693 3224

- Mount operation:
  - General:
    - Jack3 spikes have disappeared but the cause is still unclear.
    - Remote switch of optical and radio pointing correction. Some error in the documents need to be corrected and modification in a_boss to be done.
    - 8-deg over-correction of skypol. This seems to be a self-induced problem during the troubleshooting process of other problems. It is resolved now.
    - ProgTrack test was aborted due to stops related with command stack not being cleared. Will be solved.
  - Problem lists :Vertex issue (PK summary)
    - (1) ACU latency problem seems to be resolved, but Michael still has concerns about the solution and requested more tests.
    - (2) Sky-pol lock problem was identified and Stephan will send the corresponding modification in two weeks.
    - (3) no on-source / oscillations: seems resolved
    - (4) invalid backward transformation, kinematics error: related to jack3 spikes?
    - (5) stops for no obvious reason: related to jack3 spikes?
    - (6) recent R-limit incident: unclear
    - (7) ProgTrack missing on-source / oscillations: stop due to stack problem.
  - Problem lists: Our side (PK summary)
    - - correlate 1st OT -2nd OT data, especially polarization pointing: being worked on.
    - - improvements on control software: change in polarization pointing to save time
    - - user-friendly input for tracking with defined hexpol Not very pressing items, but we need to keep working on it.
- Testing on site:
  - Rx status
    - RR box "hair" problem?
  - Broken 2nd mirror of Ant2:
    - With the damaged mirror, we will lose efficiency and increase noise and also change the beam pattern. However, for on-axis observation, the problem is not very obvious.
  - IF power:
    - Derek found Ant3IF2 TP shows zero counts and is not changing with input power under etd 2.
    - Jupiter fringe first taken after RR input power was raised from -12dBm to -8dBm. SN ratio will be analyzed.
  - DC offset:
    - No update.
  - Observations:
    - Correlator error messages appear at the end of a couple of nights. Need to look into details for the cause.
    - Some traces of the correlator output show periodic oscillations while the telescope is not observing any source. Also need to look into data.
  - RPFITS
    - Remaining: ACU-TCS delay prevents smooth operation of correlator thru a_boss.
- General site issue:
    - no update
- 13 element:
  - Pacing items:
    - Mixers
    - New IF/LO
  - Rx
    - The mixer block dimension looks ok. Will start mounting chips in the next few days.
    - Johnson will consult Pablo about cold head power on setting up compressor in Hilo lab.
  - IF/LO
    - Prof. Chu agrees to put one more stage of IF amp but the variable attenuator in LO output will be more complicated. Johnson will keep discussing with them.

    * New IF/LO requires Rx mixer output to be higher than -45dBm to provide adequate tuning range in IF.
    * 1st prototype of mini-IF/LO will be delivered in September.
    * SW has order two sets of the current IF/LO module. Longest lead time for components is 3 months.
  - Electronic box
    *
  - Compressor and He line
    *
  - RO and correlator
    * ARL will present the CDR after this meeting.
    * After checking the layout, a revision of the RO board was sent and expect to come back in 1-2 wks.
    * Peter is making progress on the 1st and 2nd section assembling.
  - 3rd section
    * 3rd section packaging is finished and being sent back to us.
  - 1.2m dish
    * Dashun is working on the frame for near-field measurement.
    * The far-field mount can hold the new dish. Operation seems ok within the small scanning range of the setup.
  - Platform modification
    * The new interface ring concepts are being studied.
    * Philippe reported an idea of new carbon fiber interface ring. Its main advantage is light-weight and possibility to change design to better support outer rim of platform. We should consider what rx position will never be used.
    * Total weight of 1.2m 13-element is about 4.5tons. It is 800kg over the spec of hexapod but still within safety margin.
  - Calibration system
    * No update

Traveling Schedule to Hilo:

ASIAA Hawaii: http://pmo.asiaa.sinica.edu.tw/Hilo%20office/
AMiBA Website: http://amiba.asiaa.sinica.edu.tw/
Distribution List:
kylin@asiaa.sinica.edu.tw, ctli@asiaa.sinica.edu.tw, dkubo@sma.hawaii.edu, homin@asiaa.sinica.edu.tw, cchan@asiaa.sinica.edu.tw, shchang@asiaa.sinica.edu.tw, pmkoch@asiaa.sinica.edu.tw, pierre@asiaa.sinica.edu.tw, ydhuang@asiaa.sinica.edu.tw, chiuehth@phys.ntu.edu.tw, kyl@asiaa.sinica.edu.tw, nishioka@asiaa.sinica.edu.tw, jhpw@phys.ntu.edu.tw, keiichi@asiaa.sinica.edu.tw, r91222042@ntu.edu.tw, mkesteve@atnf.csiro.au, raffin@asiaa.sinica.edu.tw, hueiwang@ew.ee.ntu.edu.tw, pshaw@asiaa.sinica.edu.tw, y.jhwang@asiaa.sinica.edu.tw, f87026@ew.ee.ntu.edu.tw, ho@cfa.harvard.edu, jbp@cmu.edu, swchang@asiaa.sinica.edu.tw, thc@ew.ee.ntu.edu.tw, chchang@asiaa.sinica.edu.tw, ken@asiaa.sinica.edu.tw, fabi@asiaa.sinica.edu.tw, poshiro@asiaa.sinica.edu.tw, jlim@asiaa.sinica.edu.tw, wwilson@atnf.CSIRO.AU, pablo@asiaa.sinica.edu.tw, sandor@asiaa.sinica.edu.tw, sllin@asiaa.sinica.edu.tw
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