Minutes for AMiBA Telecon 20071101, 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

- Platform crack:
  - Ted discussed with ARL and Dr. Ong and they all concerned about the epoxy used. Will ask CMA when get together in Hilo.
  - Pointing and deformation may change if there exist cracks. Need to check obs. data.
  - In the "July incident" the epoxy layer suffered 2 times stress of its spec limit, and for current 7-dish the normal operation already reaches its 60% capability (el. 30deg).
  - For safety reason, all mount operation is suspended till further notice.
- Mount operation:
  - General:
    - Vertex has just sent us a new version software which should solve the skypol-lock issue. Testing of the software is suspended.
  - Problem lists :Vertex issue (PK summary)
    - ACU latency problem seems to be resolved. Guillaume found one TCP parameter should be modified.
  - Problem lists: Our side (PK summary)
    - improvements on control software: change in polarization pointing to save time
    - user-friendly input for tracking with defined hexpol. Not very pressing items.
- Testing on site:
  - Lab
    - Rx8 noise temp shows two spikes near 6GHz and 13GHz. Investigation continues.
  - Rx status
    - IF/LO on Ant2 was brought down to be swapped with #8. Temp control sensor need to be removed and reinstalled.
    - S/N increased from VGA 5V to 3V (adam) but didn't from 7V to 5V.
    - CH will compare IF power variation with and without temperature control
  - Correlator
    - 2R7R shows constant high counts, probably due to its RO IC since the demodulation doesn't work. Check later.
  - Broken 2nd mirror of Ant2
  - IF power:
    - LL baselines show IF noise dominate. RR baselines show IF noise is only marginally stronger than the backend noise (dcamp and RO). Suggest to increase RR IF power.
    - Investigation of dc-offset and 2R abnormal pattern continues.
    - 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:
    - After tuning the LO power during day time, only a few baselines show increased offset toward the end of night as expected. LO for two LO need fine-tuning later.
  - Pointing:
    - Pointing taken simultaneously by both OTs is proposed.
  - Observations:
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- General site issue:
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- 13 element:
  - Rx
    - We have got three bonded mixers and they look good. Eugene will measure the performance.
  - IF/LO
    - Single stage testing continues. Two chips were found to have problem. The doubler has spurs and the phase switch will switch 110deg instead of 90.
    - 1st module is expected to come in one month.
    - SW has order two sets of the current IF/LO module. Longest lead time for components is 3 months.
  - RO and correlator
    - Shen-Hsin is working on revising the correlator board.
    - Next will work on another iteration of RO board and the correlator electric box.

Estimated time to finish in two months.
    - We will find a machine shop to manufacture the correlator frame using drawings from ARL. It should be done in two months.
- 3rd section
    - 3rd section packaging is finished and being sent back to us.
- 1.2m dish
    - Cotech is starting to produce the #5 and #6 dish.
    - Dashun and Eugene are working on the near field measurement and may have result in this week.
    - Cross-talk between two dishes with baffles is expected to be -110dB (-80dB without baffle). We need higher gain in the measurement system to measure it.
- Platform modification
    - Philippe has come up with a new design and Ted is going to help verify it. Cosmology team should make a decision whether 1.2m separation is necessary given that we will have 1.4m separation.
    - 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
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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, hyhuang@asiaa.sinica.edu.tw, nishioka@asiaa.sinica.edu.tw, jhpw@phys.ntu.edu.tw, keiichi@asiaa.sinica.edu.tw, blog.locutus@gmail.com, mkesteve@atnf.csiro.au, raffin@asiaa.sinica.edu.tw, hueiwang@ew.ee.ntu.edu.tw, pshaw@asiaa.sinica.edu.tw, yjhwang@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, r91222045@ntu.edu.tw, skyjadel@gmail.com, sandor@asiaa.sinica.edu.tw, wyhwang@phys.ntu.edu.tw
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