

Minutes for AMiBA Engineering Telecon

Meeting Date: 28-November-2002

Participants:

Australia: M. Kesteven

USA: J. Lim, M.T. Chen, F. Patt, Ravi Subrahmanyam, Kyle Lin, C.J. Ma, J. Han, T. Huang, B. Martin

Taiwan: H. Wang, H. Jiang, J. Lim, W. Ho, P. Shaw, C.T. Li, E. Hwang, Protty Wu

Minutes Recorder: C.T. Li

[comments from this week](#), [previous weeks comments](#)

Discussion about prototype testing has been moved to science telecon since this week.

People discussed mis-alignment, TP stability, and correlator offsets.

Please read science meeting's minutes for details.

I. New Action Items:

II. Previous Action Items (still open):

21nov02-1: Alignment & Platform design: >> Bob, Ravi: people still working on it, will circulate the discussion around, further discussion on platform/receiver interface during the CDR meeting is required

21nov02-2: Test log setup: >> Protty: electronic log is setup on AMiBA data server, one copy will be sent out to AMiBA members via amiba@asiaa.sinica.edu.tw (Check out names within the distribution list)

14nov02-1: Mount CDR & 7-Element Reviews: >> Bob: Organize and pin down dates for the Vertex mount CDR as well as the review of 7-element system.

[A draft agenda sent out to few people for comments, will be circulated to everyone by end of week](#)

7nov02-1: 60cm Dishes >> Bob/Philippe: The dish manufacturer is having some problems with the CAD drawings. Arrange telecon to discuss and resolve the problems.

[Has been discussed between Bob, Ted, and Philippe](#)

[Alon like to attend the CDR meeting. Paul will decide the arrangement.](#)

[Revision of drawing is done. Ted will arrange a telecon with Alon next week.](#)

[Ted has distributed some revised drawings and Philippe arrives in Hilo this Friday. Bob, Ted and Philippe will have a telecon with manufacturer before the meeting next week.](#)

7nov02-3: CW Source on Tower >> Derek: Make sure it is OK for us to radiate a CW signal in the 85-105 GHz range at ML.

[Source is ready, waiting for someone to climb the tower. Installation of radio transmitter is on the task list for the following weeks.](#)

23oct02-2: Clock Drive Motor >> Ted/Ferdinand: Ted to characterize the torque for the clock drive shaft with the mount loaded. Thereafter, identify and order a motor.

[Ted had received a quote, will place the order next week](#)

[Ted confirmed the torque is constant for different mount orientations.](#)

[Need to think about ways to install the motor and connection with the mount.](#)

[Ferdinand are reviewing the specs. Ted and Ferdinand will place the order then. Bob envisioned that the motor won't be installed probably until Jan. or Feb. next year.](#)

[Torque with platform loaded is 7nm. Mike asked Ted to repeat the torque measurement over a larger angle to make sure it is relatively consistent. Ted mentioned that there are still some other issues to address regarding the motor.](#)

03oct02-3: Test Schedule >> Bob: Expand schedule to include retrofitting of the following: new version 2 receiver, 4-lag correlators, 60 cm dishes, new DC amplifier and readout boards.

[Shift the discussion to the science meeting](#)

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Continue testing until middle of December (tentative)
Discuss various tests performed in the past week and future plans along the way

III. Closed Action Items (as of this meeting):

14nov02-2: Update Prototype Poster: >> Ming-Tang: Paul S. asked that the prototype poster be updated to show our most recent results and photos of the ML hardware. He would like to show this poster during the MOE visit on Nov 29.
done

IV. Miscellaneous Discussions:

MMIC: Huei - TRW has finished on-wafer testing of new amplifier chips (designed by JPL), however, gain is lower than average due to lower gm (still within TRW's specs though) due to variation in process, Todd will continue on-wafer testing of some other circuits (our own design), may also put some in fixture for cryogenic testing, the alternative to these chips with lower gain is to trade a few with JPL, then use ours as the 2nd stage still in process of signing the contract for sending students to JPL to help package new chips

Receiver: Ming-Tang, Ferdinand, Bob - testing new cold head in progress - CTI22; Homing sent out some vibration data on CTI22; the fluctuations in TP output need to be investigated; discussion on how to integrate LNA in Hilo is needed in CDR meeting

LO/IF:

Correlator: Chao-Te - tested the responsivity of Rapadas' no-pad mixer, the number is lower than we expected, has circulated the result, waiting for reply from Rapadas; will have a board company in U.S. to process the power divider circuits, the company is recommended by the circuit board vendor, has process this kind of substrate before; will order some planar capacitors, transmission line and bias circuit on alumina substrates for Triquint chip mounting

Dishes:

Platform/Mount:

Site Issues/Network:

Hilo Facilities:

Schedule:

V. Other Inputs:

Email from Protty about e-log

Dear folks,

The AMiBA electronic-log site is finally launched. I temporarily put it on the "amibadata" server at ASIAA, but the plan is to emigrate it to the MLO site, on the monitor pc.

Go to: <http://amibadata.asiaa.sinica.edu.tw/>

and you'll see an updated amibadata, with several hyperlinks to the elog system.

The IAA web manager Hsin-Yi Lin has agreed to enhance the archive structure here, so I'll hand this version over to her in the next day or two for further improvement.

Cheers,
Protty