

Minutes for AMiBA Engineering Telecon

Meeting Date: 26-May-2005

Participants:

Australia:

USA: Ted, C.T., Patrick, M.T., Kyle, Johnson, Philippe, Pierre

Taiwan: Chia-Hao, Homin, Po-I

USA Dial-in = 1-800-653-5390, 6668081#

Outside USA Dial-in = 1 773 843 6301

Minutes Recorder: Kyle

I. New Action Items:

II. Previous Action Items (still open):

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

IV. Miscellaneous Discussions:

Platform:

Philippe - All bolts are in place. Next we will tighten all of them with locktite. And we will also put liquid shim. Measurement of the hole-pattern will come later.

Philippe - I called Mr. Moose, and the welding is progressing. It should be finished by Tuesday.

Philippe - Ted received a quote of the crane to be installed in the shelter. It can be retracted when the shelter is closed.

Mount:

Patrick - Checking the new version of software. The movement looks ok. I will check lower elevation and also polarization cases. So far it did not run into safety limits. The moving speed is about 0.4 to 0.5 deg/sec (originally was 1.6 deg/sec).

Patrick - When ACU and PTC are disconnected from HPC, the mount moves to neutral position without command. This could be a communication problem, but is not always repeatable.

Patrick - There is no visible oscillation now.

M.T. - I asked Conrad to send a person to fix the problems on Mauna Loa. He needs more information before he decision and proposed a meeting in Thursday night.

Receiver:

Kyle - Receiver noise temperature of Rx3 and Rx4 are all around 70K now after the bias limit was removed and with little tuning in Id (drain current). The temperature before was around 85K.

Pierre - I think we still need to put some diode to protect the LNA. The voltage divider inside the LNA does not protect it from a spike. I'd like to talk to Johnson when he is down in Hilo.

Cold Head power distribution:

Pierre - I want to do some tests switching off the cold head. I want to do this also when Johnson is down in Hilo.

Correlator:

C.T. - The problem I found is the clock signals distributed on the backplane are distorted and not synchronized. I reroute the signal paths to synchronize them in FPGA.

Homin - You can add some buffer to reshape the waveform.

C.T. - I think I can also add some boost before distributing the signal. So I have to redesign the backplane in Taipei. Also I probably will setup a correlator PC in Taipei to speed up the test.

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Calibration System:

Kyle - In today's review, I covered the goal, design and the test results. The results are not very conclusive yet. However, based on my experience taking data, I think 26GHz system is more stable. So we decided to use the 26GHz system. Next step is to build a working two-elements system including housing, power and control system that can be tested on the platform with two receivers.

Kyle - There are some issues haven't been answered. In particular, what is the spec for the calibration system? What is the calibration strategy, like how often do we calibrate? We will send out a minute summarizing the discussion later.

LO/IF:

No update.

Misc:

M.T. - I just see the lease of the new space. Debbie is working hard to finalize it. We might be able to get the key on Friday. We still need telephone line, network, some electric power and a lot of things to make it a workable place.

Pierre - I plan to rent a truck to move the UPS from CSO to Mauna Loa and the bench from ML to the new place. Maybe schedule early next week.