

Minutes for AMiBA Engineering Telecon

Meeting Date: 05-August-2004

Participants:

Australia: Michael

USA: Kyle, Ted, Jeff

Taiwan: Huei, Paul Shaw, Pierre, C.T., Joshua, Homin

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

Outside USA Dial-in = 1 773 843 6301

Minutes Recorder: C.T. Li

[previous weeks comments](#)

I. New Action Items:

II. Previous Action Items (still open):

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

AI-July29-1: C.T. - To come up with a schedule for design, fabrication, and packaging of doubler MMICs

C.T. - We have come up with an initial housing drawing, and will revise it within a week based on Wisewave's suggestion. It will take about 2 weeks for housing fabrication. We expect Wisewave to complete the packaging of 2 doubler modules in mid Sept. The quotation for engineering service (packaging, testing) is 1500 US dollars for 2 units.

IV. Miscellaneous Discussions:

MMIC:

Huei - We will start the design and drawing of doubler housing, have them reviewed by Wisewave, and then fabricate them in Taipei.

Receiver:

C.T. - We've shipped Rx#3. We're preparing Rx#4 right now.

Homin - Tashun and Joshua were packing Rx#3 and its control box. Both will be shipped out today.
Ming-Tang - Rx #1 and 2 are under testing in Hilo. The cold head temperature of Rx #2 somehow rose up to 22 degree. We suspect there might be some tiny leakage. We're short of Rx testing man power right now since Johnson went back to Taiwan due to some personal issue.

LO/IF:

C.T. - Prof. Chu has agreed to accommodate two variable gain amplifiers in IF/LO section. We have to figure out how to provide the control voltage.

Homin - We have decided to purchase two variable gain amplifiers for testing.

Calibration System:

Kyle - We will generate 21-26 GHz signals for the CW calibration source, and then test it with receivers and correlator in the lab using variable delay in one path.

Kyle - We brought correlator and correlator computer down to Hilo, used to testing the variable delay in the calibration system. We're looking for a 21-26 GHz signal generator for the tunable CW calibration system. I have tried a broadband coupler and a tee to couple broadband noise to CW signals. It didn't work out so far.

Correlator:

C.T. - We have the redundant hard drive set up. We're still revising the frame, expecting to finish it in 2-3 weeks so we can start packing correlator for shipping.

Pierre - We can have a 110-V UPS for the dedicated 48-V power supply for correlator computer.

Minutes for AMiBA Engineering Telecon

C.T. - The frame still needs some work or modification. We will receive the RAID (Redundant Array of Independent Drives) this week. Then we can install the hard drive backup system for correlator computer.

Platform/Mount:

Michael - I will ask Vertex how they're going with the control software.

Paul - Vertex will ship the control computer by end of August.

Ted - For the mount, the 40-foot open-top container will arrive in Hilo on Aug 29th. The other one will arrive on Sept 20th. I am gathering the tooling, e.g. high-torque (1000~2000 NT-meter) torque wrench, for mount assembly according to Vertex's tool list.

Ming-Tang - Platform is under shipping. CMA has provided us a quote for the 3rd fix. The lead time is 12 weeks (toward end of October). According to Philippe, hexapod and the supporting cone have been disassembled and packed.

Michael - I have implemented a feature in the control software, to send a sequence of positions with time stamps for tracking. I have sent a copy to both Vertex and Homin.

Ming-Tang - We need to think about the emergency shutdown of the mount during the power failure, especially when there is a rain coming. It needs lots of care to manually wind the gear boxes to bring down the mount.

Dish:

Jeff - We have unpacked the 1.2-meter dish from South Pole and are putting the mount together in order to scan the 1.2-meter dish. After the testing with a new secondary, the plan would be to send the dish to MLO, and mount it on the receiver to measure the system temperature. We're continuing discussing with Milliflex about the specs.

Jeff - We got a quote for 1.2m dishes from Milliflex.

Site:

Pierre - I will install the transfer switch for future installation of a power generator for emergency shutdown during power failure.

Ted - Ludwig will anchor two containers this week, then all the work for the site is done.

Pierre - We got the 2nd container up to MLO. Ludwig will anchor both containers later. Electricians are hooking up power.

Ted - About the shelter, one of component is delayed for 2~3 weeks. We discussed some safety issues, e.g. interlock between shelter and mount. I will go back to the company to see the assembling and testing on August 9th. The shipping will take about one month. It will arrive around end of Sept.

Ming-Tang - We are considering having Ludwig install the shelter. Another issue is whether we can put on some crane for telescope service.

2-Element Prototype Testing:

Administration:

Paul Shaw - We will have the custom clearance for the mount through Honolulu with the help of TECO. Sun has asked Prof. Chiueh to prepare the press presentation in mid Sept.