

Minutes for AMiBA Engineering Telecon

Meeting Date: 12-August-2004

Participants:

Australia:

USA: Kyle, Ted, Jeff

Taiwan: Ming-Tang, Paul Ho, Paul Shaw, Pierre, C.T., Joshua, Homin

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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):

IV. Miscellaneous Discussions:

MMIC:

C.T. - West updated the drawing and sent it to Wisewave. We hope to finalize the drawing by next week. It takes two weeks for fabrication, and another two weeks for packaging. We expect to see the modules sometime in September.

Receiver:

Ming-Tang - Rx#3 is in Hilo. We're shipping its control electronics.

Kyle - The LO module for Rx#2 is broken. The 42 GHz power amplifier has some problem, not drawing any current. We're thinking to exchange the IF/LO modules for Rx#2 and #3.

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

LO/IF:

Ming-Tang - We're putting together IF/LO #4.

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.

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.

Correlator:

C.T. - Today the machine shop will bring in the revised frames that they have checked with our modules. We fixed the bug in data acquisition due to a short circuit in a FPGA.

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.

Platform/Mount:

Ming-Tang - The platform is in L.A. and cleared of custom. It will be shipped to CMA then. Philippe and CMA were discussing some of the items for the modification. Therefore we haven't issued the P.O. yet. But CMA has started procuring some material. Vertex closed down during the first 2 weeks of August. We're ready to make the final payment to Vertex after they ship out everything. Hexapod will arrive in early Sept., while the supporting cone will come by end of Sept. It's not sure how long it will take to clear the custom.

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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.

Dish:

Ted - The secondary for the 60-cm dishes is on schedule. We should have the first modified 60-cm dish in early Sept.

Ming-Tang - Prof. Chu told me that his near-field measurement setup can be used to test the 60-cm dish.

Jeff - We can test the 1.2-meter dishes that we have right now, and then send them to MLO. We can use the same setup to test the production 1.2-m dishes as well. The other issue is that Milliflex has a mold for 1.2-m dish which is 2% difference in focal length from our specs. I suggest that we change our specs that the focal length becomes 16 inches. Therefore the production dishes will have some response as the one we're going to test.

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.

Site:

Pierre - I will arrive in Hilo next Monday. I need to discuss with electricians in MLO, and to buy some equipment, e.g. UPS, lightning protection...

Pierre - We need to know the power rating, and what kind of power, e.g. 208-Delta, for the shelter, also whether we can put the crane on top. Ted can ask them while he is in Florida.

Ted - They changed the way motor is mounted. We have to check how it works tomorrow. We will finish the testing and assembling by this Friday. They will do some re-painting and some adjustment next week. They will start packing afterward.

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.