Minutes for AMiBA Engineering Telecon

Meeting Date: 2-September-2004

Participants:
Australia:
USA: Ming-Tang, Pierre, Jeff
Taiwan: Paul Shaw, C.T., West, Patrick, Johnson, Homin, Steven

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Minutes Recorder: C.T. Li
previous weeks comments

I. New Action Items:

Philippe – to provide Along a more clear definition about the best-fit plane for them to complete their finite-element analysis (some examples in ANSYS?)

II. Previous Action Items (still open):

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

IV. Miscellaneous Discussions:

MMIC:
C.T. – We have got a quote for doubler housing. Engineers in Wisewave are reviewing our drawing right now.

C.T. – We're getting a quote for the doubler housing from the local machine shop. After the manufacturing, we will send all the components to Wisewave for packaging.

Receiver:
C.T. – Johnson is going to test the phase shifter in low temperature. He is setting up the test dewar.
Ming-Tang – We need to make sure the device survive during the thermal cycles.
Homin – We're testing the electronic box with Rx#4. A student is modifying the codes for Rx monitoring.

LO/IF:
Steven – I have sent out the pin definition yesterday, which can be used for the trouble-shooting.
Pierre – We should buy one channel DAC module for variable-gain amplifiers and test it.

Steven – After the component acceptance test, I will work on IF/LO module documentation for future reference and trouble-shooting. Then I will assemble the modules #5 to #8. We will wait for the variable gain amplifiers to be installed in module #4.

Calibration System:
Ming-Tang – I am working on getting the parts for our current scheme.

Ming-Tang – Kyle is on vacation these two weeks. He gave me a list of components for the calibration system, mostly from Wisewave. The total cost would be around 10K US dollars. They're necessary for prototyping. I will write a memo describing the system.

Correlator:
C.T. – Tashun is preparing all the packaging material for shipping the correlator to Hilo. We will ship the components in mid Sept. We got the motherboard back from the manufacturer. They replaced some parts for the time drifting problem. However, after an hour test, the problem is still there. We're going to test it for a day to see how much it drifts. For the revision of total power circuit layout, I will circulate it once received from the company for people to comment.

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C.T. – We're revising the total power detection circuit layout. We found the clock of correlator computer is drifting, about 6 seconds per hour. We're going to send one motherboard back to the manufacturer for inspection, while keep the other one for system testing. After Tashun put together one set of frame, we will put the components in and finish the wiring.

Platform/Mount:

Ted – Platform is in CMA now. The schedule for modification is 12 weeks after the order is placed.
Ming-Tang – For the mount, the supporting cone stays in L.A. for custom clearance, haven't got to Honolulu or Hilo yet. Jackie and Debbie are working on it. Philippe will be there, starting Sept. 21st, making arrangement for the installation. Vertex shipped out control computers this week.

Dish:

Ted – The 1st secondary mirror will be sent to ITRI for measurement, replace the old one on a 60-cm dish, and have the alignment measured in next week.
Patrick – Prof. Chu mentioned there is still some problem with the near-field measurement setup. One major one is the large data set we have with the 60-cm dish, at least two data points for each wavelength in order to derive the far field. We're thinking the possibility to do the measurement outsides with Proty's new tripod.
Jeff – We had the shop make 3 blanks for the new secondary.

Paul Shaw – I got an email from Prof. Chiueh about Jeff's offer for the 1.2-m dishes.

Site:

Ming-Tang – The work on the site is done. We try to make the final payment to Ludwig within this week. We need to have phone line set up.
Ted – I got an email from the shelter company saying that the motor arrived two days ago. They tried it this morning. It works well. They still need to do more system tests. It is expected to arrive in early Oct.
Ming-Tang – For the shelter, we need to have all the documentations, including electrical wiring, before we closed this contract.
Ted – We met with Along to discuss the finite element analysis. There are still some un-finished items. They need us to provide a more clear definition for the best-fit plane.
Pierre – We need to check the voltage drop along the 48-V cables from the transformer to DC-DC converters.

Ming-Tang – We just got down from the site. Ludwig has finished all the open issues on the punch list provided by the architect. We also have the electricity hooked up to the containers. We should close the contract and pay the final bill.

2-Element Prototype Testing:

Administration: