

Minutes for AMiBA Engineering Telecon

Meeting Date: 1-July-2004

Participants:

Australia:

USA: Ming-Tang, Johnson, Ferdinand

Taiwan: Paul Shaw, Pierre, Steven, Kyle, West

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Minutes Recorder: C.T. Li

[previous weeks comments](#)

I. New Action Items:

II. Previous Action Items (still open):

AI-June10-1: Philippe/Ted - To check the results of previous acceptance measurements for the 30 and 60-cm dishes.

Paul Shaw - Along is preparing the final quotation. Ted has some discussion with them about the payment. I think we should reach some internal agreement.

Ming-Tang - Since Ted is going to be in Germany for a while, we should get things started soon after we reach some agreement among us.

Ming-Tang/Ted - We found that the 2nd were made with wrong shapes, due to mis-understanding of coordinates. We need to find out how long it will take for Along to fix them.

AI-Apr22-2: Philippe/Ted - To check on Along's analysis and come up with a conclusion on how to repair the platform.

Ming-Tang - According to Ted, their result is not up to our expectation. I tends to cancel the contract.

Ted - Philippe and I tried to explain to them the best-fitted plane that we need. We sent them some examples this week.

Ming-Tang - We should set up a deadline for them to finish the job, otherwise we should close it. I'll ask Philippe to come up with a plan or analysis then.

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

AI-June17-1: Paul Shaw - to check on the payment to Ludwig for interest and additional concrete

Paul Shaw - After talking to Ludwig, he agreed that due to the change of order, the payment for interest and additional concrete will not follow the same schedule as the original contract.

Ming-Tang - Paul should write up a short memo regarding this issue to remind people.

IV. Miscellaneous Discussions:

MMIC:

Receiver:

Steven - Tashun plans to ship Rx#3 to Hilo in 2 weeks.

Johnson - We have measured output spectra of receivers in Hilo. Rx#1 looks good.

We're trying to trouble shoot the 42-GHz LO module of Rx#2.

Homin - We still work on Rx#3.

Johnson - We try to leak check the Rx #1.

LO/IF:

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Steven - We have set up a meeting last Tuesday. Prof. Chu has sent out a conclusion by email. He will add one more IF amplifier without 3 pads in between. For the DRO, I have checked the output with a spectrum analyzer that if we use the external 100-MHz oscillator, it will work properly.

Steven - Prof. Chu has sent out an email about additional amplifiers. We will set up a meeting to discuss the details.

Calibration System:

Ferdinand - I have been fixing the calibration system brought down from the summit. Have been working on the translation stage behind the sub-reflector.

Ferdinand - I need to design a translation stage. I agreed with Prof. Chiueh that there might be more power at lower frequencies. We can put the photonic noise source on a carrier to translate along the baseline of two prototype receivers to find out the signal spectrum from the fringes.

Correlator:

C.T. - I set up the correlator system again. Michael is going to connect the observation software to correlator.

Platform/Mount:

Ming-Tang - There were some open issues found last week, and the acceptance test continues. The mount seemed to behave as expected, and the platform will be sent back to CMA, although we have got the quotation or schedule on the fix of the platform.

Michael - For the mount, everything now is in place according to Ferdinand and Philippe. Vertex is going to have the jacks running up and down continuously for a while. A team from AMiBA is going to perform the acceptance test next week. The platform certainly deforms badly outside the ring containing the U-joints. There would be problem for use of big dishes - 1.2 or 2.4-meter diameter ones, which have to be on the outer region of platform. I wonder if the support of the U-joints put in bending stress into the platform. One option might be to have a steel ring to carry those stresses, and the platform just sit on top of that.

Ted - Philippe has considered whether to use a steel or carbon-fiber ring because of thermal expansion issue. However, a carbon fiber plate will take CMA a while to make it.

Michael - Current platform will suffice for 7-element compact array. We might be able to operate the system in the mean time to fabricate the plate. It might be worth to see if we can have access to Vertex's stress model while we're there next week.

Dish:

Site:

Pierre - I received message from Ferdinand concerning the lightning protection, equipment container, and 48-volt DC distribution. I'll ask around about the details.

Ming-Tang - We need to find a person or team to work on the control software and pointing.

Ferdinand - I will try to contact the container and shelter companies for more updates.

2-Element Prototype Testing:

Administration:

Update from Paul about the customs clearance issue for mount & platform - We have consulted the import duty exemption issue with the TECO in Honolulu. They agreed to help us to apply the import duty exemption for mount. We need to provide all necessary shipping document to TECO once we got from VA. Then TECO will send it to Washington for approval. It may take one month or more to get paper work through.