

## Minutes for AMiBA Engineering Telecon

Meeting Date: 21-April-2005

Participants:

Australia: Michael

USA: Ted

Taiwan: C.T., Chao-Hao, Johnson, Patrick, Pierre, Kyle, Homin, Steven

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Outside USA Dial-in = 1 773 843 6301

Minutes Recorder: Kyle

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### I. New Action Items:

### II. Previous Action Items (still open):

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

### IV. Miscellaneous Discussions:

Platform:

**Ted** - Kevin and I will go to Honolulu to do first inspection on the interface ring. The material is cut and ready for welding. Depending on how things go, we may have a final inspection in mid May. The inspection will follow document generated by Philippe, Kevin and me.

Mount:

**Patrick** - I only heard a few email exchanges between Michael, Philippe and Vertex. It seems Vertex would like to move the mount differently depending on the elevation. Michael did not agree. I don't have detail at this moment.

**Michael** - Addressing the oscillation problem in their algorithm, I think Stephan's solution of make it move slowly is a poor one and not really addressing the problem. I think there must be two loops; One checks the jack length with the requested value, and the other calculates the hex\_pol from all the jack lengths and check with requested. If the later is not met, it adjusts the length of one jack screw to accommodate. Therefore one commands the jack to become longer, and the other commands it be shorter. We can see during the oscillation, many jack screws move at the same time. They are quite synchronous.

**Michael** - I think if they can prove mathematically a trajectory is safe with a predetermined speed, they should stick to that speed. If anything's wrong, they should stop the mount.

Site:

**Ted** - We reschedule the fence installation to next week after we come back from the inspection on interface ring. When the interface ring is ready, Philippe will come for acceptance and start assembling the platform on Mauna Loa. Not sure about how many people we need to the assembling yet. If necessary, we'll hire some people from Ludwig.

**C.T.** - How about lightning protection on the fence? **Pierre** - We'll hire some contractor and I will be in Hilo some time. Not sure when yet.

Helium line and Receiver:

**Chao-Hao** - Now we have four chambers cooled down to 9-11K. I will test the other He line next week. Temperature is recorded.

**C.T.** - How about receiver? **Chao-Hao** - I have assembled Rx6, almost finished.

**C.T.** - Don't have enough components for Rx7, right? **Johnson** - I think we need to quote for more isolators. We bought these isolators 3 years ago, and I think they are out of warranty. We should just buy some more from Millitech. The

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problem is only with the mechanical connection. The device should be good. Maybe we can discuss with vendor for replacement.

### 48V power:

**C.T.** - It is done. Joshua will ship it next week when he comes back from Lulin.

### Dish:

**Kyle** - No update.

### Correlator:

**C.T.** - The shipment went out yesterday. I'll be in Hilo on May 2.

### Calibration System:

**Kyle** - Johnson and I removed all the limiting diode on both F38 cards so the LNA's were working within spec after last week's meeting (except the two that have different  $V_g$  from that displayed on the datasheet). The mixer output IF power was higher than before. Therefore I repeated the test on 13GHz-distribution calibration system. After that, I also did the same test on 26GHz-distribution calibration system. I have gathered some data but have not finished analyzing them yet. I will circulate the result after I finish.

**C.T.** - Have you decided on purchasing the following orders? **Kyle** - Not yet. I think we should see the new results first.

**Pierre** - Kyle and I chatted briefly about what he wants to drive the motor. We need to discuss in further detail.

### LO/IF:

No update.

### Misc: