

3rd Harmonic Monday Meeting Minutes

Date: June 11, 2007

Time: 9:00 A.M.

Place: Hermitage

Attendees (P=Present, Ph=attended by phone):

C. Antoine		N. Dhanaraj	P	D. Olis	P	G. Wu	P
T. Arkan	P	H. Edwards	Ph	P. Pfund		A. Hocker	P
L. Bellantoni		M. Foley		S. Reeves	P	L. Cooley	
H. Carter	P	E. Harms	P	M. Ross		H. Jiang	P
M. Champion	P	T. Khabiboulline	P	A. Rowe		G. Galasso	P
C. Cooper	P	D. Mitchell	P	N. Solyak		Y. Torun	P

Minutes recorded by Dan

Minutes are posted at: http://tdserver1.fnal.gov/dolis/39GHz_minutes.html

3.9GHz Project page is: www-a0.fnal.gov

Meeting Minutes

Cavity status

- Elvin reports processing for cavities 5 and 6 is on schedule. Cavity-5 baked last week and then will go to IB4 for CMM measurement. This will take ~3days and then Timer will tune. It then gets final etch, likely next week.
- Elvin reports cavity-6 is at ANL this morning for inside etch and will be baked tomorrow.

Helium Vessels

- Don reports that he is updating drawing set to include American Welding Society specification for titanium and titanium allow welds, AWS G2-4/G2-4M. He will meet with Kris Anderson for feedback.
- Don solicited input on how many vessels he should procure. He plans to get six.
- Helen asks Genfa to look into getting hardness tester for titanium and Ti welds.

Mockup

- Don and Tug estimate mockup effort should be done by late July.
- Don reports that C. Grimm and M. McGee did some vibration testing on Friday on shipping fixture. He has not yet seen a report.
- Don reports that he is working with Virgil Bocean in the survey group on design of survey plate for aligning/measuring cavity string. This will also be included on the mockup and measured by survey group during simulations.

Main Coupler

- Dan reports re-plated Outer Conductors from CPI have not yet been QC'd. Ryan Montiel has been working on HTS.
- Dan reports second RF volume for coupler test is not yet done. B. Smith is having many problems with brazing. Replacement parts were machined last week.
- Elvin reports that he will power up two couplers on test stand again this week as final qualification test on first pair of couplers.

HOM Couplers

- Elvin reports that niobium tips rec'd from Omley and were etched by FNAL. Will go back to Omley this week for braze into feed-thru's.

Other Business

- Don reports that cryomodule vacuum vessel should ship to Fermi this week.
- Genfa reports that baseline vertical test of single cell cavity is complete: quenched at 15MV/m. Timer reports that field emission was fairly high and that improper coupling made measurement relatively inaccurate. Cavity will go next to Apion for plasma processing and then be retested in A0's VTS. Genfa reported that 80micron etch and HPR preceded vertical test. Charlie says etch

should have been 150microns to properly remove damaged layer. Genfa will look into this. After plasma test, cavity will be re-etched and sent to ANL to test multi-layer processing.

- Helen asks Genfa to provide status report on feed-thru availability for 1.3 and 3.9GHz cavities next week.
- Andy will manage instrumentation and cabling plan in cryomodule. Don needs this to finalize cryomodule feed-thru flanges.
- Elvin reports that HTS developed a cold vacuum leak when cooled down to 5K – it was leak tight before then. Cryostat is warm and will be opened up for further investigation. A leak check strategy will be developed.
- Andy reports that CC2 breakdowns returned last week – very similar to previous incident. Events are sometimes accompanied by a signal from the coupler phototube and lots of x-rays. Operation will cease today for switchover to HTS commissioning. 8 pi/9 mode achieved '35 MV/m', 7pi/9 – well beyond threshold for breakdowns. Coupler put back to original position – no effect.
- Don and Tug will put together a plan for pressure test.
- Tug will get gate valves back to DESY for cleaning if not yet done.
- Tug reports that DESY personnel are expected in July for string assembly work on first 1.3GHz cryomodule. They will return in September to complete. He is concerned that there may be a conflict with 3.9GHz string assembly for use of string assembly tooling. He plans to order another set of string assembly tooling to address this conflict. He needs about \$25k. He will discuss funding with Elvin.