

3rd Harmonic Monday Meeting Minutes

Date: June 18, 2007

Time: 9:00 A.M.

Place: Hermitage

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

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

- Allan reports cavity-5 setup today for 20min BCP, then back to A0 for HPR, pump dry, prep. for vertical test. Vertical test planned for early next week. Cavity-6 is getting tuned by Timer. He'll finish tomorrow. 20micron etch expected this week. It looks like all etching activity will be done on cavities 5 & 6 before ANL takes control of chemistry for the next few weeks.
- Allan reports that one HOM tuning membrane on both cavities 5 and 6 HOM measures a bit thin at 0.7mm. This doesn't leave room for error for additional etches.
- Timer reports frequency shift is greater on cavity-5 than on cavity-6, possibly more material etched on cavity-5. Allan says that chemistry process is running a bit warm due to problems with chiller, 14-15C versus target parameter of 12C but sees no reason why the two cavities are different.
- Mike reports he is waiting for end tube assemblies from Andreas. He's expecting them shortly. If they arrive soon, he'll weld at Sciaky at the end of next week. These end assemblies have single post design HOM F-probe. Mike also reports that the tuning membrane on HOMs measure 1.1mm thick.

Helium Vessels

- Don will procure (7) from vendor and make one in-house. He's working with Ron Evans in purchasing.
- Mike and Don are gathering material and it will likely be machined at HiTech.
- Mike reports that Al Buetler is working on weld fixture design for in-house use.
- Don is working on FEA of vessel, studying effect of full penetration welds and possibly thicker bellows. Total pressure requirement is not yet defined: 2, 3, or 4atms? Don will report analysis results by email this week. He is on vacation next week.
- Helen asks about qualifying vessels once received. There was a discussion about hardness tests, tensile tests, bend tests, pressure tests, etc. Elvin says Arkadiy Klebaner in TD has a setup for doing pressure tests. Genfa nominated Hairong Jiang as TD lead.

Field Probes

- Don says he gave feed-thru's to Timer a couple of months ago. Genfa will talk with Timer. Don and Allan say that tips were plasma welded to the feed-thu's here at Fermi.

HOM Couplers

- Elvin reports these are expected in mid-July from Omley.

Other Business

- Andy will work to have first-pass instrumentation and cable plan by Thursday for another meeting. Elvin will supply Andy with 1.3GHz plan for reference, starting point.

- Elvin and Andy report that Helicoflex seals in HTS were not indium coated, resulting in cold vacuum leaks last week. Elvin says assembly plan will be updated to prevent this from happening again. Leak test should finish today and pump down should begin this afternoon. Cryogenic commissioning will occur this week in parallel with RF installation of waveguide, switches, shutters, etc.
- Don and Tug will put together a plan for cavity string pressure test. Helen believes full assembly tests are necessary. Don argues that a full system test will require complicated end caps and believes subassembly tests are sufficient. Helen urges that the test plan get written down so it can be discussed.
- Elvin reports that through 5/07 we have \$95.2k M&S available. We'll spend approx. \$125k on helium vessels. Elvin met with R. Stanek to secure more funds. He expects we'll get \$125k added to our budget. He wants input on other possible outlays this year.
- Don reports that a type-4 cryomodule (T4CM) meeting will be held at Fermi July 18-20.