

3rd Harmonic Monday Meeting Minutes

Date: January 22, 2007

Time: 9:30 A.M.

Place: Trailer 157 Conference Room

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

C. Antoine		C. Cooper	P	D. Mitchell		G. Wu	P
T. Arkan	P	N. Dhanaraj	P	D. Olis	P	A. Hocker	
L. Bellantoni		H. Edwards	P	P. Pfund		J. Li	P
C. Boffo		M. Foley	P	S. Reeves		M. Ross	P
H. Carter		E. Harms	P	A. Rowe	P		
M. Champion	P	T. Khabiboulline	P	N. Solyak	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-3

- Timer presented latest test results: 12MV/m @ $Q=4 \times 10^9$ and then quench. Temperature probes show quench initiated by multipacting in the downside HOM (input coupler end).
- Timer says trimming antenna length similar to probe modification for cavity-4 would significantly reduce fields and likelihood of multipacting, but operation is far more difficult on a complete cavity since iris ID interferes with an EDM wire. Some discussion on plunge EDM and hand grinding. Mike will investigate and discuss with D. Burke.
- Decision on whether probe modifications will be attempted or whether to proceed to weld on helium jacket is required.

Cavity-4

- Cavity should be complete this Friday and then: CMM measurements, RF measurements, outside etch, inside etch, bake, tune, inside etch, HPR = 4wks to vertical test.

End Groups

- Mike is starting to receive end group components for redesigned HOM bodies. Plan is to have (6) full sets for use on cavities 5-8, and possible replacements for cavities 1&2, or others. Mike has weld dates Jan.1-2 & Jan.8-9.

Helium Vessels

- Jacket/vessel will be test fit on cavity-1.
- Some confusion as to whether all pieces required for helium jacket are in hand. Don will clarify when he returns on Monday.
- TIG v. EB? Fixtures required? Glovebox?

Main Coupler Test Stand

- Elvin reports that couplers are quiet so far with 100microsec, 12kW pulses. Instrumentation checks out. Power will be increased this week. So far all tests are done manually.
- Check log book at: <http://www-ilc-crl.fnal.gov/ilc/Index.jsp>

HOM bodies

- Mike showed section cuts of test samples on probe to body welds. He described delicate nature of perimeter/annular weld on probe leg since it requires much more precise beam positioning than fully heated leg (baseline). On first examination, successful annular welds show finer grain structure. Charlie is preparing samples for detailed analysis of these welds.

Other Business

- Tug and B. Smith are going to JLAB this week to work on HPR of cavity C-22 for HTS shakedown. Some discussion as to whether vertical test is required. This will add weeks to schedule and interrupt tight-loop studies.

- Helen went through task list and assignees for commissioning of horizontal test – lot's to do!