

33rd Summary of Meeting for S1-Global module design, Cryomodule and Cryogenics

Date: 2010/03/23

Time: 22:00-23:00 (Japan Time)

Attendant: Tug Arkan, Serena Barbanotti, Tom Peterson, Hitoshi Hayano, Eiji Kako, Jim Kerby, Toshihiro Matsumoto, Hirotaka Nakai, Takayuki Saeki, Tetsuo Shidara, Nobu Toge, Akira Yamamoto, Yasuchika Yamamoto, Norihito Ohuchi

All presentations are unloaded in the INDICO site:

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Agenda

1. S1-G cavity assembly status (Eiji Kako)
2. S1-G module assembly status (Norihito Ohuchi)
3. S1-G test schedule (Hitoshi Hayano)
4. S1-G cryomodule thermal tests (proposal) (Norihito Ohuchi)

Discussion

(1) S1-G cavity assembly status (Eiji Kako)

- Four slide-jack tuners were assembled on the four KEK cavities (MHI-05, MHI-06, MHI-07 and MHI-09). On the MHI-05 and -06, the tuner locations were at the center of the cavity jackets, and on MHI-07 and -09, they were at the end of the cavity jackets.
- Schedule of warm coupler assembly:
 - March 15: Denis Kostin arrived at KEK from DESY
 - March 16: Meeting for warm coupler assembly at STF. Checking and preparing the coupler parts. Setting the clean-booth and the pumping system.
 - March 17: Assembly of warm coupler for Z109 and Z108.
 - March 18: Assembly of warm coupler for ACC011 and AES004.
 - March 19: Disassembly of warm coupler for AES004 and reassembly of this coupler.
- Connection of beam pipe for Cryomodule-C is scheduled in April 6th – 7th.

(2) S1-G module assembly status (Norihito Ohuchi)

- Assembly works from March 10~March 20;
 - March 10~11: Wrapping the SI around the 80K shields.
 - Inserting the cold mass into the vacuum vessel.
 - March 12~13: Checking the signal wires.
 - Moving the Module-C into the STF tunnel and setting the module on the stands.
 - March 15~20: Welding the cooling pipes between the 2K cold box and the Module-C.
 - Pre-assembly of the thermal shields between the 2K cold box and the Module-C.
 - Making the terminals of signal wires for the feed-throughs.
 - Preparation of Module-A assembly.
- Cryomodule-C was assembled on time, and Module-A assembly will start from March 29.

(3) S1-G test schedule (Hitoshi Hayano)

- The overall schedule of S1-G cryomodules was explained, and the details were discussed in the GDE meeting.
 - June early: Cool-down of S1-G cryomodule
 - June-July: Cavity low power check, and cryomodule heat load measurements
 - July last week: Warm-up of the cryomodule
 - August: Coupler RF process at room temperature
 - August last week: Cool-down of S1-G cryomodule again
 - September-December: Coupler RF process, cavity performance study, LD compensation, heat load measurements, vector-sum operation and DRFS test
 - December latter half: Warm-up of the cryomodule

(4) S1-G cryomodule thermal tests (Norihito Ohuchi)

- The plan of the thermal test of cryomodule was explained, and the details were discussed in the GDE meeting.
 - Scheduled test period for thermal measurements: 1 week and three weeks before and after the summer shut down.
- The planed thermal measurements:
 - Heat load measurements: Static and dynamic heat load measurement
 - Temperature profile measurements by thermal sensors of Cernox, PtCo and CC thermocouples

Position measurements of cavities and GRP during cold test by WPMs, strain gauges and Laser position monitors

Next meeting date

Meeting Date: 6 April 22:00 (Japan time), 8:00 (FNAL), 15:00 (INFN and DESY)