

S1G Experiment Schedule Plan

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Assembly work after cavity arrived

Assumption: cavity with VT, with pickup antenna, with Ar or N2 filled,
coupler with RF process,
Tuner package, interface cables package, coupler installation jig, coupler WG mount, Mag. shield,
beam-tube connection bellows, spool peaces, seals, bolts and nuts.

Module C (INFN module)

- (1) check the listed component
- (2) review the assembly procedure with arrived components
- (3) Coupler cold part assembly and cavities connection in clean-room
- (4) Tuner assembly outside clean-room
- (5) Installation to cold-mass, pipe welding, leak check
- (6) Temp. sensor, RF cables
- (7) mag. shield
- (8) thermal anchor, super-insulator, installation into vacuum vessel
- (9) Installation into STF tunnel

8 weeks

2010.01~2010.02

Module A (KEK module)

Start immediately after clean-room available

same procedure as phase1 cavities

9 weeks

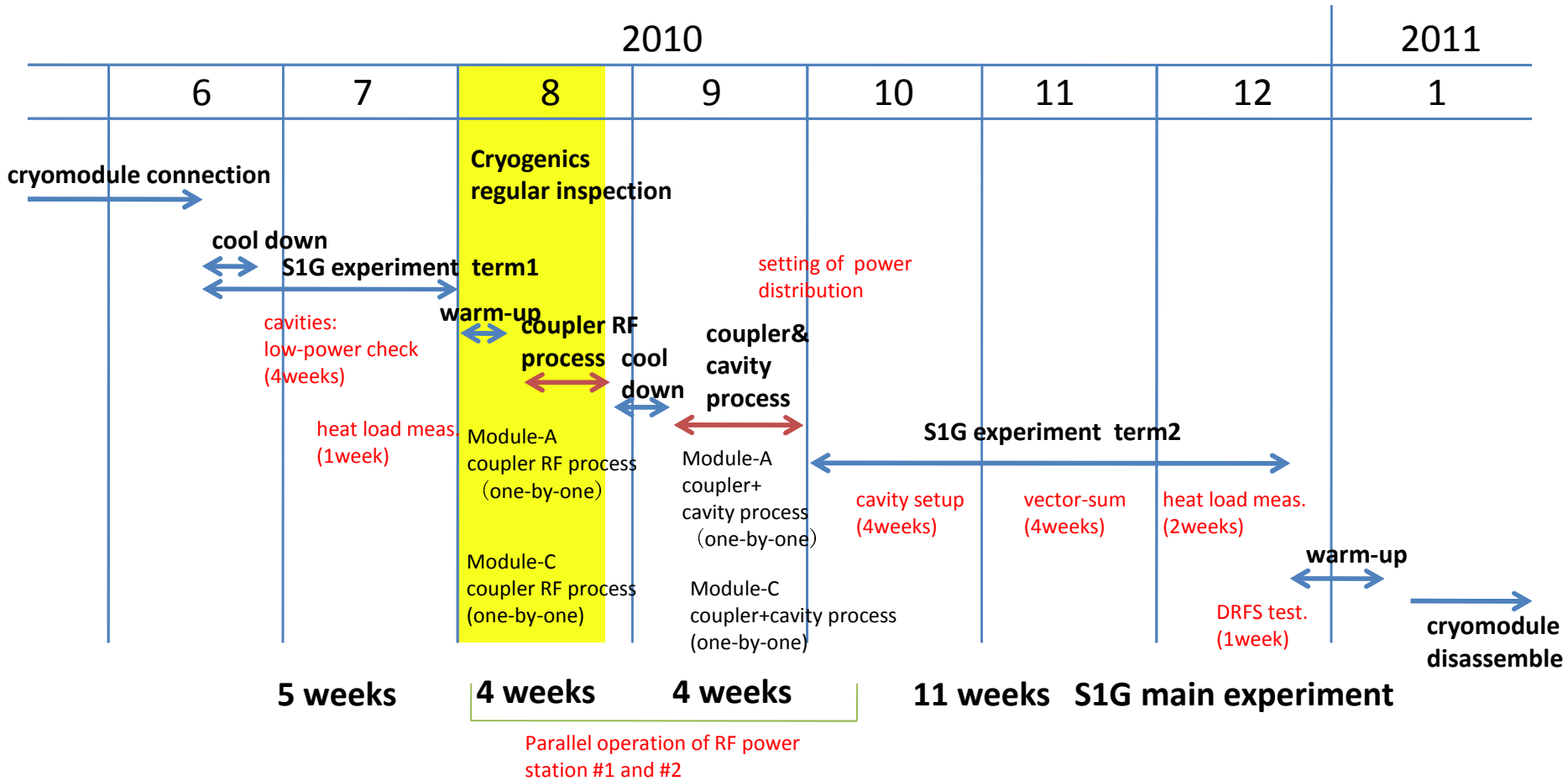
2010.03~2010.04

Connection work of Module C (INFN module) and Module A (KEK module)
in STF tunnel

6 weeks

2010.05~2010.06

S1G overall schedule



IPAC2010
May23-28, Kyoto

ICHEP2010
July21-28, Paris

LINAC2010
Sep12-17, Tsukuba

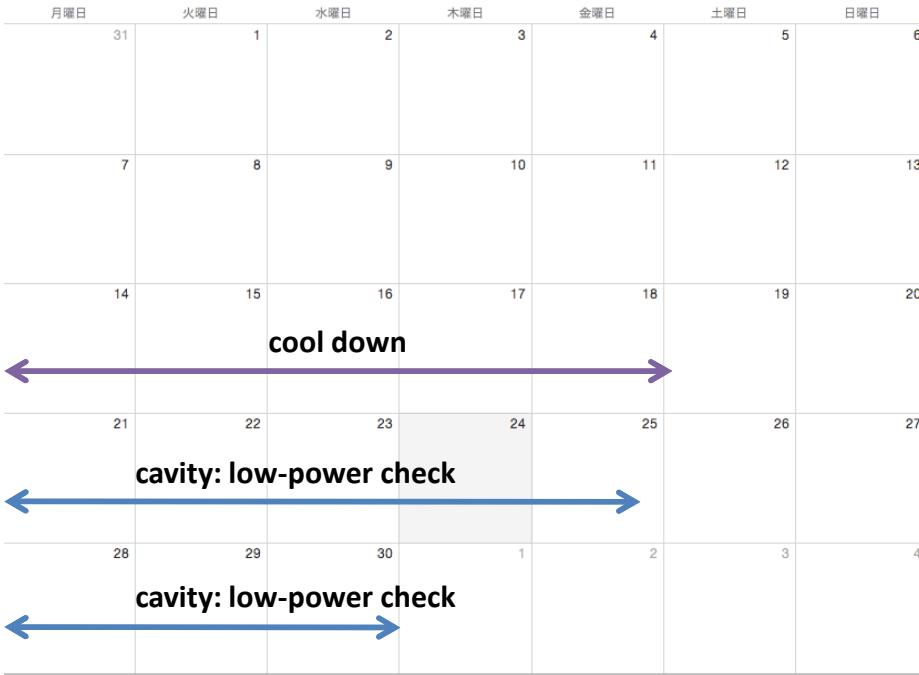
Domestic Accelerator Meeting
Aug 2010

Only LN2 will be Continuous full day operation.
LHe operation will be daytime only.
Monday : 2K cool-down,
Tuesday – Friday : 12:00 – 19:00
7hours for S1G experiment at 2K.

S1G schedule 1

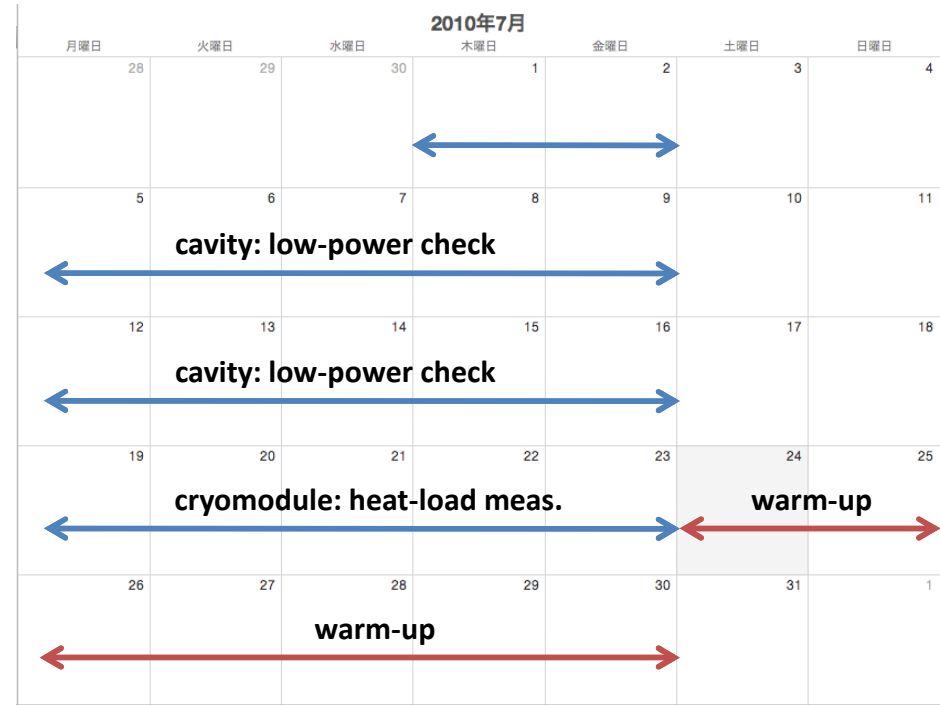
June 2010

2010年6月



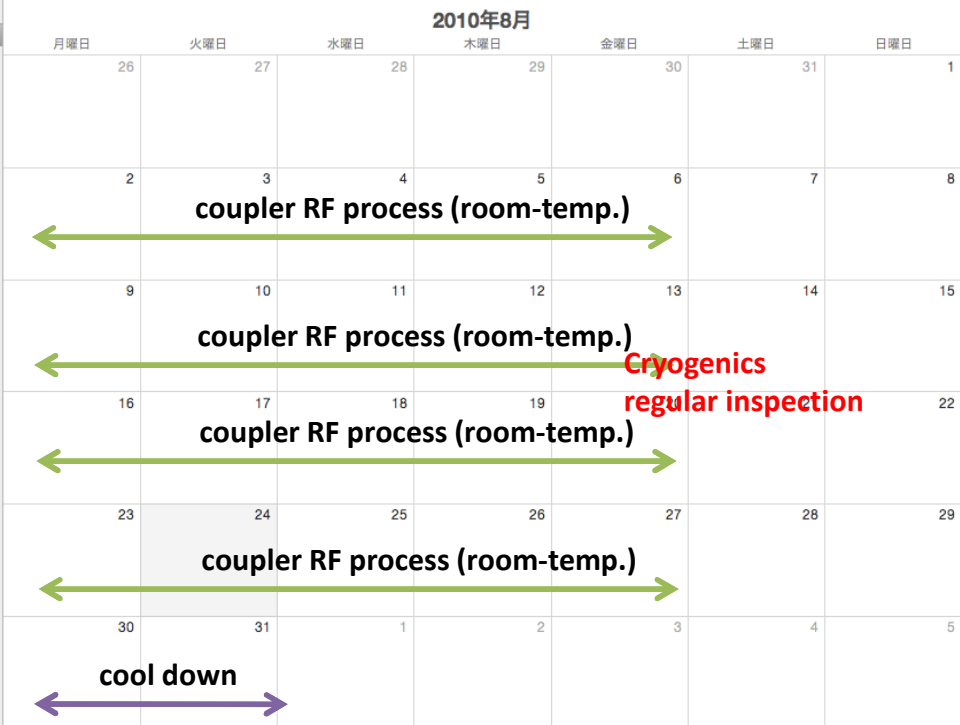
July 2010

2010年7月

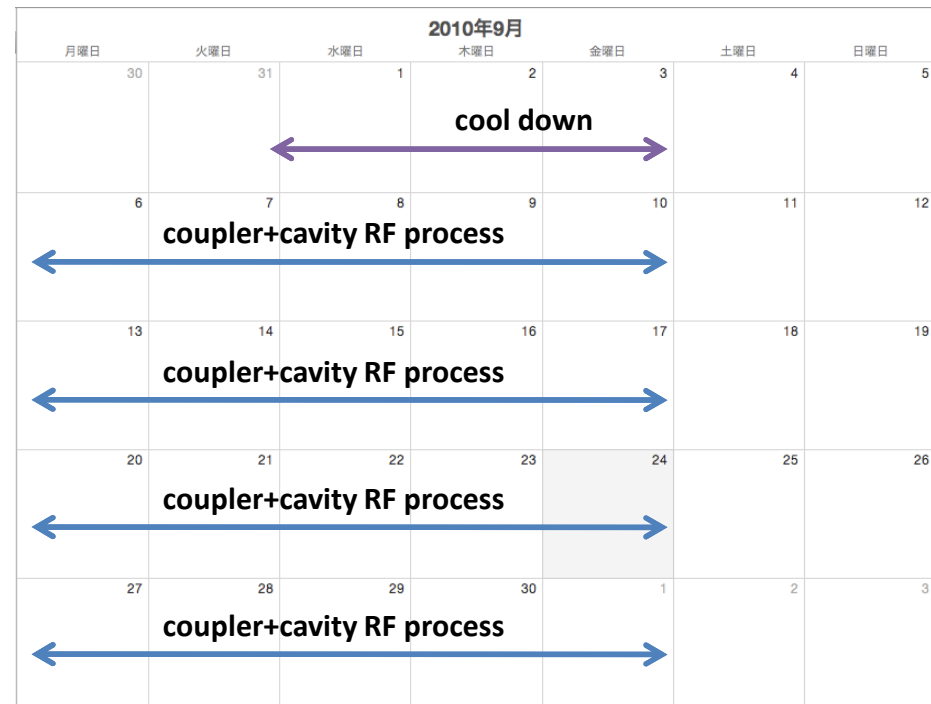


S1G schedule 2

Aug. 2010



Sep. 2010



S1G schedule 3

Oct. 2010

2010年10月						
月曜日	火曜日	水曜日	木曜日	金曜日	土曜日	日曜日
27	28	29	30	1	2	3
4	5	6	7	8	9	10
cavity performance study, LD compensation						
11	12	13	14	15	16	17
cavity performance study, LD compensation						
18	19	20	21	22	23	24
cavity performance study, LD compensation						
25	26	27	28	29	30	31
cavity performance study, LD compensation						

Nov. 2010

2010年11月						
月曜日	火曜日	水曜日	木曜日	金曜日	土曜日	日曜日
1	2	3	4	5	6	7
Vector-sum operation						
8	9	10	11	12	13	14
Vector-sum operation						
15	16	17	18	19	20	21
Vector-sum operation						
22	23	24	25	26	27	28
Vector-sum operation						
29	30	1	2	3	4	5
Cryomodule Heat-load meas.						

S1G schedule 4

Dec. 2010

2010年12月						
月曜日	火曜日	水曜日	木曜日	金曜日	土曜日	日曜日
29	30	1	2	3	4	5
		Cryomodule Heat-load meas.				
6	7	8	9	10	11	12
Cryomodule Heat-load meas.						
13	14	15	16	17	18	19
DRFS test					warm-up	
20	21	22	23	24	25	26
warm-up						
27	28	29	30	31	1	2

S1G experiment term1 : 5 weeks

1. : Low power measurement of each 8 cavities. (cavity people)

measurement and set up of cavity; Q-values, frequency, main coupler coupling
mechanical tuner response, piezo tuner response, mechanical vibratino mode, HOMs, etc.

4 weeks (2010.06-07)

NWA, Coax-Rect Transformer : Prepair 3 set for KEK, DESY, FNAL (Hayano)
Prepair remote control function for mechanical tuner and piezo tuner (Hayano)
main coupler will be manual control in tunnel.

2. : Heat load measurement (static) (N. Ohuchi and H. Nakai)

1 week (2010.07)

S1G experiment term **summer shutdown** : 5 weeks

at room temperature

1. : Main coupler RF process of one by one. (cavity people)

#1 Klystron will be connected to Module-C cavities one-by-one (DESY cavity, FNAL cavity)

#2 Klystron will be connected to Module-A cavities one-by-one (MHI cavities)

Parallel coupler processing one/week; total 4 weeks.

5 weeks (2010.07.26-08.27)

Cryogenic system in maintenance and yearly inspection,
KEK also has 2 days yearly electronic system maintenance

(2 days AC power off laboratory-wide)

Summer holiday season.

at 2K temperature

2. : Main coupler + Cavity RF process of one by one. (cavity people)

#1 Klystron will be connected to Module-C cavities one-by-one (DESY cavity, FNAL cavity)

#2 Klystron will be connected to Module-A cavities one-by-one (MHI cavities)

Parallel coupler+cavity RF processing one/week; total 4 weeks.

4 weeks (2010.09.06-10.01)

S1G experiment term2 : 11 weeks

(0) Optimization of Waveguide distribution (power distribution ratio) (HLRF group)

(1) Set-up of FF-table, preparation of vector-sum circuit (LLRF group)

1. : **cavity performance study, set-up of LD compensation for each cavity**

gradient check, LD measurement and compensation

4 weeks (2010.10)

2. : **Vector-sum operation**

Set-up of vector-sum, high gradient operation by vector-sum LLRF control

4 weeks (2010.11)

3. : **Cryomodule Heat-load meas.**

Statis and dynamic heat-load

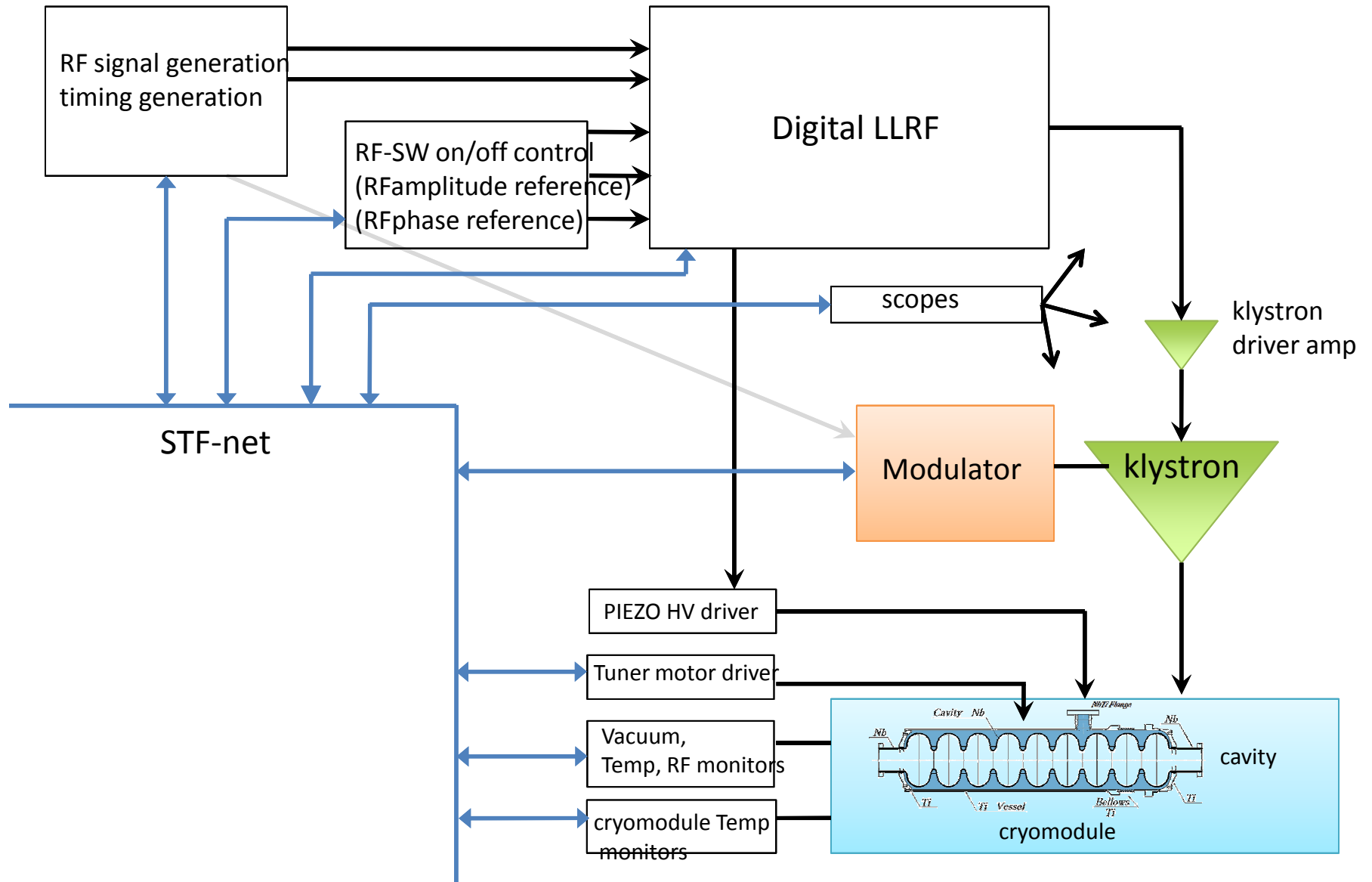
2 weeks (2010.12)

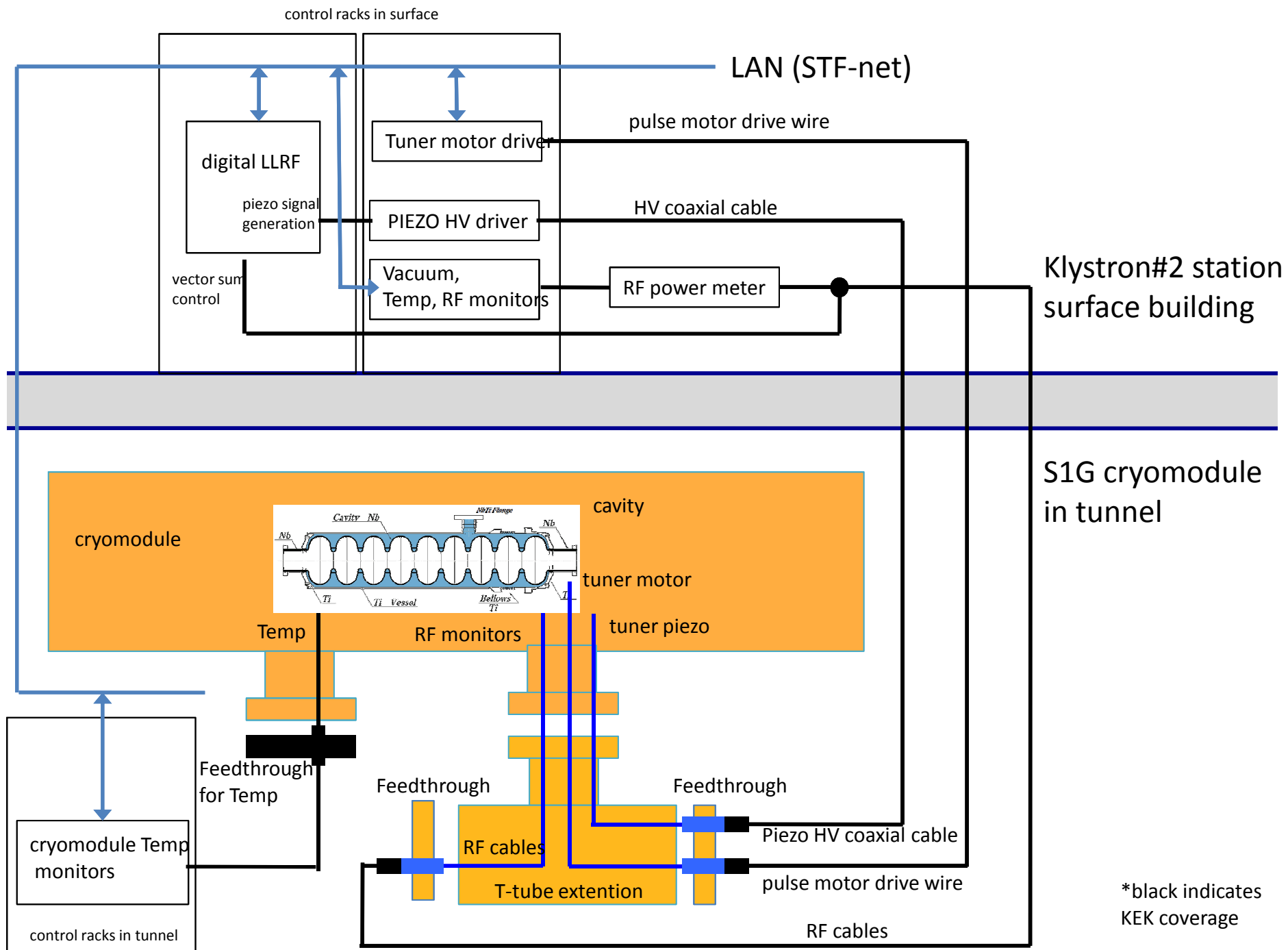
4. : **DRFS test**

Connect 1 small klystron to two cavities in tunnel, LLRF also in tunnel.

1 week(2010.12)

overall control configuration of S1Global module





END