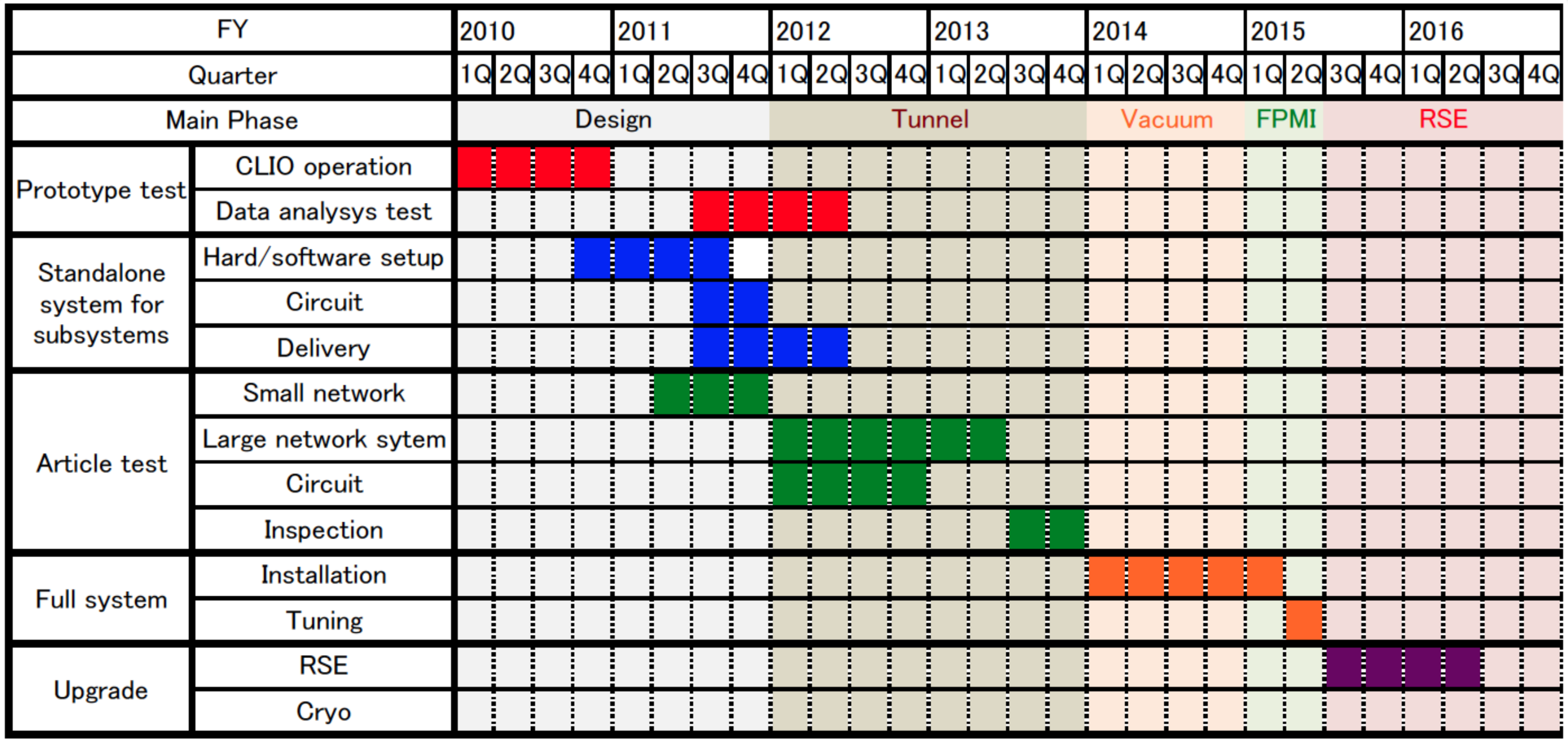
Status report from DGS group in domestic KAGRA collaboration meeting



A. 2009-2010 prototype test @ CLIO (done)
- Basic IFO operation and noise performance

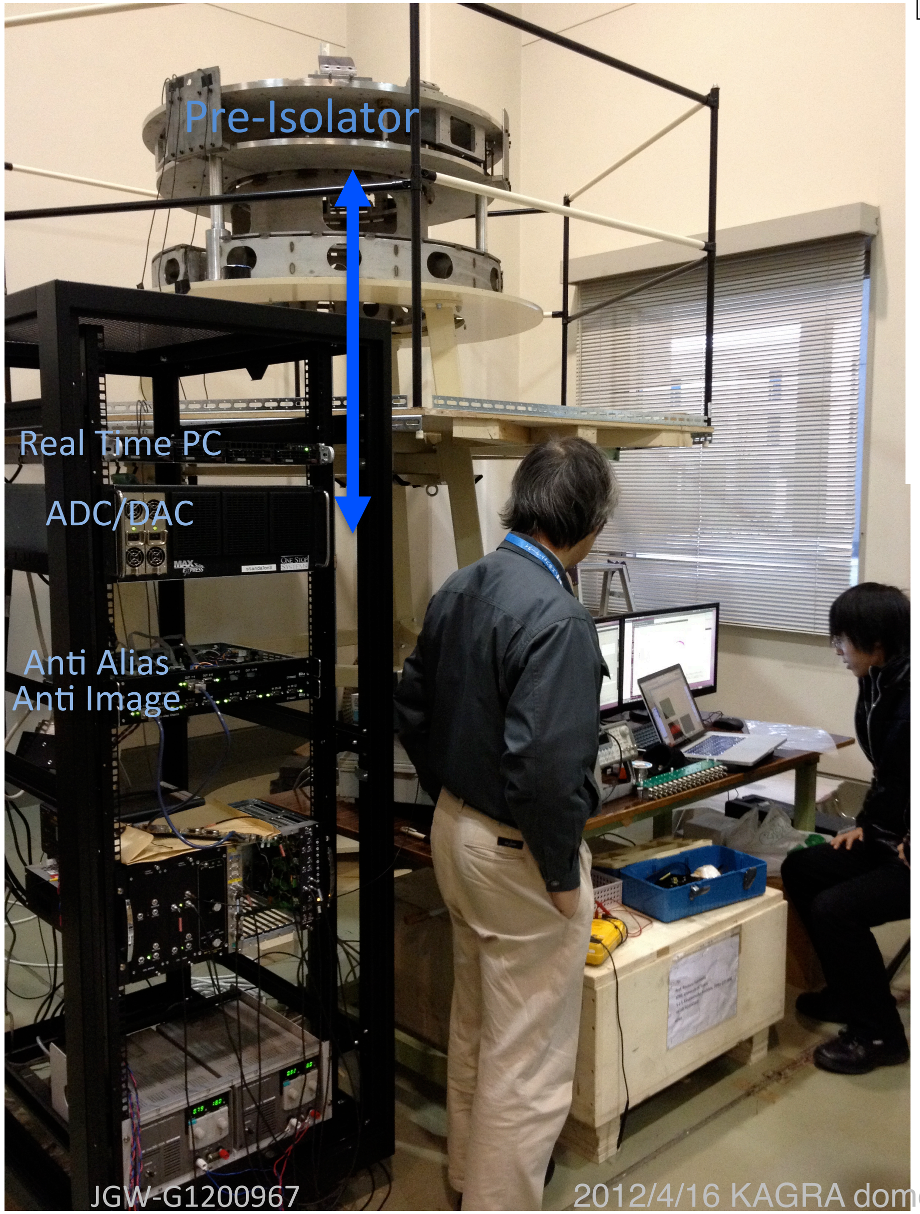
B. 2011~ standalone system for subsystem (system: done, 2/5 delivered)
- Data analysis, VIS, (IOO, CRY…)

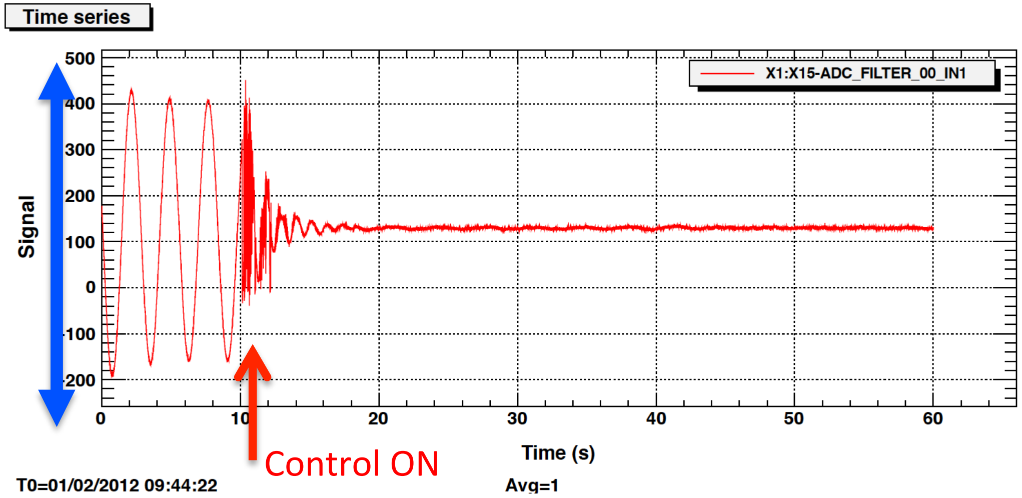
C. 2011 Small network test with 1 master and 2 RT PCs (done)
- GE RFM, Dolphin RFM, DAQ, timing network

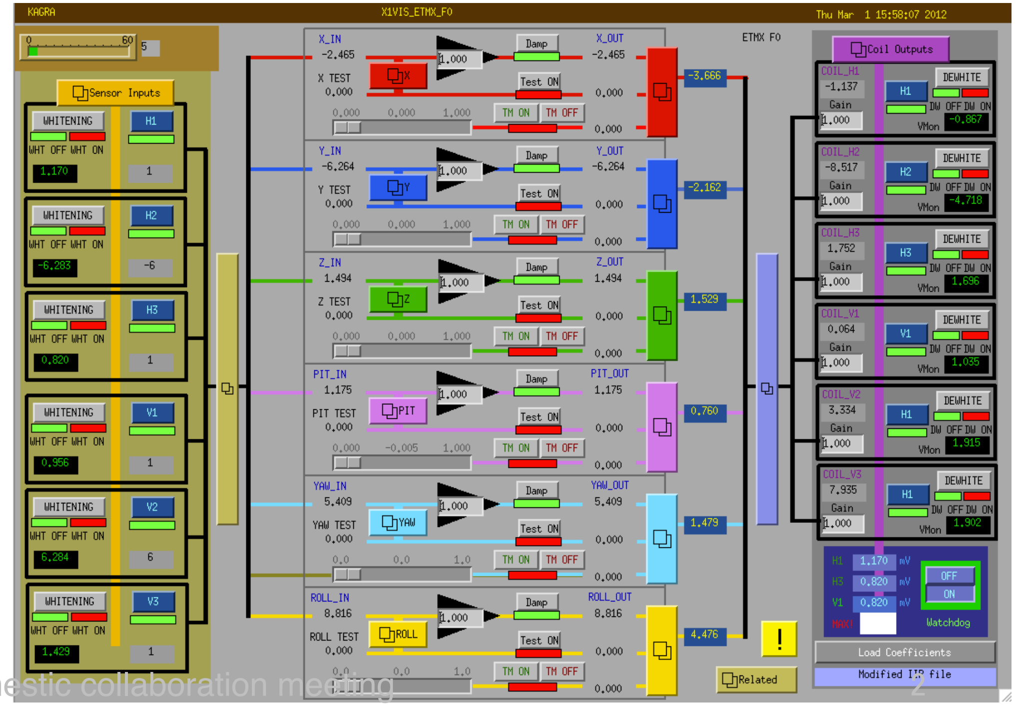
D. 2012-2013 Full test@ Kamioka new building
- Constructing many RT rack modules

Installation into KAGRA mine

Digital control system for Pre-Isolator







2.4 Quality assurance: Preparation for mass production of circuits for DGS

- 8 D-SUB 9pin connectors as 32ch signals input at front panel for AA (ADC)
- 4 D-SUB 9pin connectors as 16ch signals output at front panel for AI (DAC)

- SCSI 68pin connector as input/output at rear panel
- D-SUB 3pin connector as DC power supply input
- 0.2A/card

- AA and AI for VIS are ready.
- 6 AA and 6 AI will be made in this FY.

Ex. VIS channel list (preliminary)

Quantity matrix

		ADC	DAC	BO	Motor
LVDT		2	1		0
Geophone		1	0		0
Actualtor		1	1		0
Stepper Motor		0	0		1
OSEM		1	1		0

2 ADC, 2DAC / Type A
1ADC, 2DAC / Type B

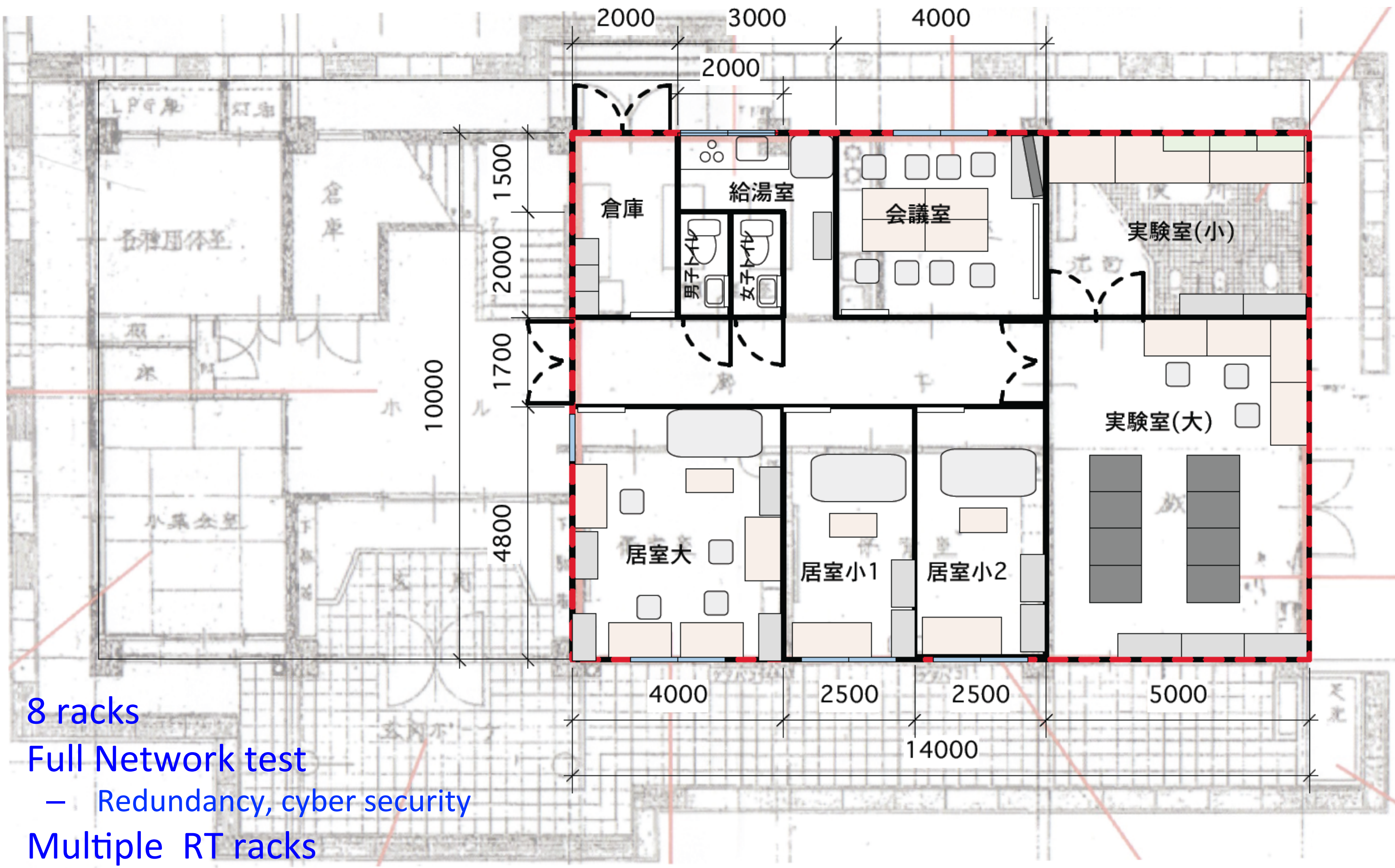
Type A 4

		Qty.	ADC	DAC	BO	Motor
Pre Isolato	LVDT	4	8	4		0
	Geophone	4	4	0		0
	Actualtor	4	4	4		0
	Stepper Motor	4	0	0		4
	OSEM	0	0	0		0
GAS	LVDT	1	2	1		0
	Geophone	0	0	0		0
	Actualtor	1	1	1		0
	Stepper Motor	0	0	0		0
	OSEM	0	0	0		0
GAS	LVDT	1	2	1		0
	Geophone	0	0	0		0
	Actualtor	1	1	1		0
	Stepper Motor	0	0	0		0
	OSEM	0	0	0		0
GAS	LVDT	1	2	1		0
	Geophone	0	0	0		0
	Actualtor	1	1	1		0
	Stepper Motor	0	0	0		0
	OSEM	0	0	0		0
Pay load	LVDT	1	2	1		0
	Geophone	0	0	0		0
	Actualtor	1	1	1		0
	Stepper Motor	4	0	0		4
	OSEM	8	8	8		0
total			36	24		8

Type B 7

		Qty.	ADC	DAC	BO	Motor
Pre Isolato	LVDT	4	8	4		0
	Geophone	4	4	0		0
	Actualtor	4	4	4		0
	Stepper Motor	4	0	0		4
	OSEM	0	0	0		0
GAS	LVDT	1	2	1		0
	Geophone	0	0	0		0
	Actualtor	1	1	1		0
	Stepper Motor	0	0	0		0
	OSEM	0	0	0		0
Pay load	LVDT	1	2	1		0
	Geophone	0	0	0		0
	Actualtor	1	1	1		0
	Stepper Motor	4	0	0		4
	OSEM	8	8	8		0
total			30	20		8

Full test at Kamioka from this summer



- 8 racks
- Full Network test
  - Redundancy, cyber security
- Multiple RT racks