RADWG 6TH - 2012

16TH OCTOBER 2012

G. Spiezia (EN/STI/ECE)

AGENDA

- Matters arising and SEU events
- LHC radiation levels
- CNRAD
- PS East area
- H4IRRAD: TE/EPC results
- NSREC conference summary
- R2E database

Technical stop

- LHC TS3
  - Readout of the radfets and Batmon
  - Data communicated to the users

PSI test plan - 2012

Date	Equipment Owner	Test group	DUT
28-29July	BI	BI	BPM components
14-16 September	EN/STI	EN/STI	RadMon, Transceiver, RS485
26-28 October	EN/STI	EN/STI	Components, Piezo sensors
2-4 November	TE/EPC	TE/EPC	ADC, DAC for FGC Lite

- September 2012
  - MAX4391 (Rs485 transceiver) – OK
  - Transceiver SN74LVC16T245DGGR – OK
- November/December 2012
  - Test of Electronic components
  - Test of the NanoFip (first batch). To be confirmed

PSI test - summary and reports

Month	DUT	Type	Report
February	Power supply NI		Done
February	Cypress EV 8 Mbit	SRAM	On going
February	Toshiba AF 4 Mbit	SRAM	On going
February	LM317	Regulator	Done
February	LM337	Regulator	Done
February	INA146	Amplifier	Done
February	AC-DC	System	Done
March	ADG1421	switch	Done
March	LM334	current regulator	Done
March	radfet	sensor	Done
April	Radmon	system	Done
April	IRFB4310	Mos	On going
April	STD10NF	Mos	On going
April	Cypress EV 8 Mbit	SRAM	On going
May	OSL	sensor	
May	SEUMoN	sensor	
May	RadFet	sensor	Done
May	TLD	sensor	

PSI test- summary and reports

Month	DUT	Type	Report
June	LM340	Regulator	Done
June	LP2980	Regulator	Done
June	MAX6350	Vref	Done
June	BST82	Mos	On going
June	IRFR9220	Mos	On going
June	IRFB4310	Mos	On going
June	STD10NF	Mos	On going
July	UCC38C45	PWM	Done
July	SN74ACT245D	Transceiver	On going
July	SN74LVC16T245DGGR	Transceiver	On going
September	RadMonV6	system	Done
September	SN74LVC16T245DGGR	Transceiver	On going
September	MAX4391	RS485 Transceiver	Done

- Missing reports from the campaigns of BE/BI, report on TLD and OSL

PSI test plan-2013

- Requests for 2013
  - TE/EPC
  - BPM (2 slots)
  - QPS (1 or 2 slots)
  - NanoFip (2 slots)
- Renewal of the contract is on going
  - Legal office prepares a note to get up to 15 slots per year

CEA – 1 MeV facility

- Beam slots in October 2012 and November are confirmed
  - RadMonV6 test
  - Calibration
- Waiting for the details of the plan
  - Passive tests of Diodes (TE/EPC) could be an option
  - Laboratory measurements of the main parameters to do

Fraunhofer institute - Germany

- Electronics
  - Delegate the Co60 tests for qualifying new batches of RadFets (Dose measurement)
  - Fruitful collaboration
- Material test
  - On-line and passive tests are possible
  - Good feedbacks
  - Waiting for an offer

CERN facilities

- CNRAD
  - Details in the presentation from Julien.
- H4IRRAD
  - Next slot on November
  - Details: https://edms.cern.ch/document/1245788
- Only a few reports have been collected so far

SEE update

TBC: To be confirmed

- Data from March 2012 to 10 October

Dump	Dump TBC	No Dump	No Dump/ TBC
40	19	28	5

HARD see			
Dump	Dump TBC	No Dump	No Dump/ TBC
4	3	4	0

SEE update

TBC: To be confirmed

QPS			
Dump	Dump TBC	No Dump	No Dump/ TBC
25	2	18	0

EPC			
Dump	Dump TBC	No Dump	No Dump/ TBC
9	7	7	1

CRYO			
Dump	Dump TBC	No Dump	No Dump/ TBC
2	1	1	0

SEE update

TBC: To be confirmed

VACUUM			
Dump	Dump TBC	No Dump	No Dump/ TBC
0	7	0	0

EN/EL			
Dump	Dump TBC	No Dump	No Dump/ TBC
1	0	0	0

Collimation			
Dump	Dump TBC	No Dump	No Dump/ TBC
1	0	2	0

SEE update

TBC: To be confirmed

RF			
Dump	Dump TBC	No Dump	No Dump/ TBC
1	1	0	0

SEE update

- 40 beam dumps due to confirmed SEE (and 19 cases To be confirmed)
- 68 SEE Confirmed (Dump/No dump)
- 11 destructive events
  - Understood for EPC and UPS
  - Not expected for Vacuum and RF (TBC)

SEE update

- To follow up
  - 4 events at P4-UX45. To be clarified
  - Vacuum PLC issues (Point7 and Point 4)
  - Cryo: Driver of the magnetic bearings (Point4 and Point8)
  - RF equipments (Point 4)

Back-up