WP2 – Testing, data acquisition and integration

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Hardware for compact setup



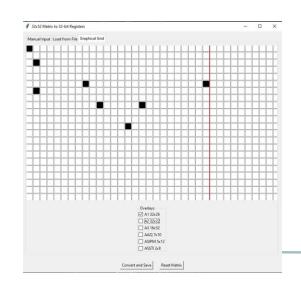
- Cryogenic measurements:
 - □ An excel file to associate contacts with chip-structures has been prepared
 - Colleagues in Naples are defining how to bring out the signals: readout of all chip-structures VS a single chip-structure
- Irradiation measurements: planned for the1st week of July at INFN-TO (200kRad, 300kRad, 1Mrad ...)
 - Daughter and mother board (inside) connected with a long cable to the FPGA (outside)
 - Irradiation with LV and HV (ON below break-down voltage) to monitor DCR trend during irradiation and to compare it with stable condition
 - Discussion will start soon to define a set of relevant measurements





Firmware activities

- A series of activities on going to distribute a more versatile firmware plus a simple GUI
 - Registers in firmware (well advanced)
 - Possibility to operate all chip structures: on-going
 - Debug performed on Al
 - GUI under development
 - Read write register (ok)
 - enable/disable SPADs to test (on going)
 - Data structure definition under discussion
 - Ideally we want to have the same structure for all tests and chip-structure (A1, A2, A3, AAQ)





	UART Read/Write Tool		
Serial Port:	СОМЗ		
Baudrate:	9600		
Base	Address 0x00020000		
Write Addr (hex):			
Write Data (hex):			
0	Send Write		
Read Addr (hex):			
	Send Read		
Read Result:			
ffective Address	:		
Ser	nd File Commands		
	Write File:		
Start Addr (hex):			
Stop Addr (hex):	-		
	Write on File		
	PGA Registers:		
FWREV		R	W
BOARD_ID		R	W
ARRAY_ID		R	W
STATUS		R	W
CTRL		R	W
DEBUG		R	W
MODE		R	w
SRCTRL		R	W



Demonstrator for Calorimetry



- The SPADs arrangement is almost completed
- Readout schema is under discussion
 - Qualification in the lab
 - Operation in TB scenarios



