



GE2/1 Test Stand at Florida Tech — Status

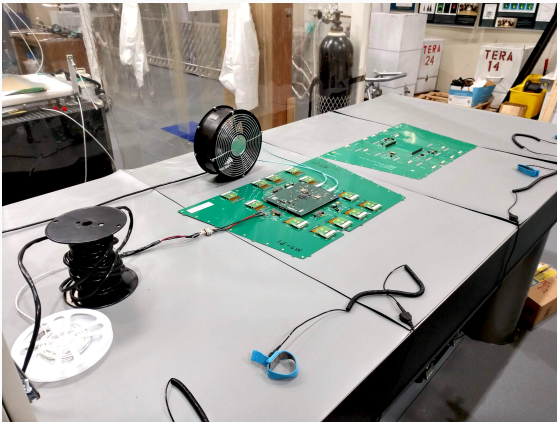
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October 1, 2019

Florida Institute of Technology

GE2/1 Test Stand at Florida Tech — Status

- Optical table and floor covered in grounded, ESD mats
- LV tests for M1-P1 and M5 GEBs show all 6 FEASTs (5+1 spare) work properly/voltages are properly distributed



Items in hand:

- M1-P3 and M5-P1 GEBs
- 1 OH (#10)
- FEASTs: 1 2.5 V, 1 1.8 V, 1 1.5 V, 2 1.2 V
- 60 VFAT3b_v3, 40 Panasonic/Hirose adapters
- 1 GLIB, 1 FMC, 5 SFPs, 10 10m multimode LC-LC fibers
- 1 μ TCA crate, 1 NAT MCH, 1 GLIB
- 1 CAEN SY5527 mainframe, 1 A1515 HV board, 1 A2519 LV board

Rack with CAEN mainframe and μ TCA crate and power supply



Test stand with M1-P1 and M5 GEBs.

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- GEMDAQ PC is almost operational; some issues with compiling CMS-GEM-DAQ-PROJECT software (will be resolved this week)
- Local, private network setup for communicating with the μ TCA crate and CAEN SY5527 mainframe \Rightarrow we can communicate with the MCH and CAEN mainframe and LV/HV boards

System: 192.168.0.1

Custom	Name	Set	ISet	VSet	IMon	VMon	Par	Status
01.000	CHANNEL00	0.5 A	12.00 V	0.000 A	0.000 V		Off	
01.001	CHANNEL01	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.002	CHANNEL02	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.003	CHANNEL03	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.004	CHANNEL04	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.005	CHANNEL05	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.006	CHANNEL06	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.007	CHANNEL07	0.5 A	0.00 V	0.000 A	0.000 V		Off	
01.008	0.6380T	100.00 uA	0.00 V	0.1360 uA	0.12 V		On	ExtDi
01.009	0.6370P	100.00 uA	0.00 V	-0.0550 uA	0.14 V		On	ExtDi
01.010	0.6280T	100.00 uA	0.00 V	0.0310 uA	0.06 V		On	ExtDi
01.011	0.6370P	100.00 uA	0.00 V	0.1260 uA	0.12 V		On	ExtDi
01.012	0.6190T	100.00 uA	0.00 V	0.1250 uA	0.16 V		On	ExtDi
01.013	0.6170P	100.00 uA	0.00 V	0.1010 uA	0.16 V		On	ExtDi
01.014	0.6080T	100.00 uA	0.00 V	-0.0160 uA	0.06 V		On	ExtDi
01.015	1.6380T	100.00 uA	0.00 V	-0.1360 uA	0.10 V		On	ExtDi
01.016	1.6370P	100.00 uA	0.00 V	0.1040 uA	0.16 V		On	ExtDi
01.017	1.6280T	100.00 uA	0.00 V	0.1000 uA	0.24 V		On	ExtDi
01.018	1.6270P	100.00 uA	0.00 V	0.1680 uA	0.06 V		On	ExtDi
01.019	1.6190T	100.00 uA	0.00 V	0.0200 uA	0.12 V		On	ExtDi
01.020	1.6170P	100.00 uA	0.00 V	0.0480 uA	0.06 V		On	ExtDi
01.021	1.6080T	100.00 uA	0.00 V	0.1270 uA	0.06 V		On	ExtDi

Hardware Modules:
 Board01 - A2519 - [20]
 Board02 - A1515TG - [40]
 Board03 - A1515TG - [40]

System: 192.168.0.1

CAEN GE2020 PS control software.

S. Butalla – “GE2/1 Test Stand at FIT Status” – Oct. 1, 2019

- Update CPLD on GLIB with latest firmware (fw)
- Begin preliminary testing with GE1/1 GLIB fw while GE2/1 compatible fw is being developed
- Begin testing connectivity scripts using the ZynqSoC emulator
- Ship M5-M8 modules to FIT once M6-M8 GEB are available before the end of 2019
- Stephen Butalla to participate in 904 camp in November



- 3 LC SPF_s
- M5-M8 modules w/hardware (skeleton, chimney, cooling plate, etc.)
- 3 OH_s
- FEASTs to instrument 3 GEBs (15 more total + spares)
- LV and HV cables (in 904, ready to be shipped)
- Grounding cables (in 904, ready to be shipped)
- 4 HV filter boxes
- 1 CTP7 (ideally)
- 2 OH to OH flat cable
- SW/FW: GE21 compatible GLIB firmware

