

Hall C HV Testing Project Status Report

Date: July 31, 2019

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1. CAEN A7030TN load circuit

- 1.1. Tested 64 channels of the A7030TN HV modules to full current.
 - 1.1.1. During the testing slot 1, channel 28 showed evidence of the software issues previously observed by Pablo on a A1535 module in slot 13.
 - 1.1.1.1. Pablo confirmed the observation using CSS. Hall C has been informed of the findings.
 - 1.1.1.2. We requested and received a second CAEN sy4527 mainframe to perform similar test, in order to see if the problem was just on HVCAENTEST2 or is it systemic.

2. New test chassis design.

- 2.1. Determined that the best combination of resistor is 500 K, 1.5 M and 5 M ohms.
 - 2.1.1. A configuration circuit will be included in the multiplexing board design using (1x) 500 K, (1x) 1 M, and (1x) 5 M ohm resistors.
 - 2.1.2. Completed a circuit diagram for the HV multiplexer. The design utilizes inexpensive LV relays to control 4 banks of HV relays to minimize the number of control channels needed for operation.