

**Hall C HV Testing Project Status Report**  
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1. CAEN A7030TN load circuit

- 1.1. Calculated load resistors for A7030TN module
  - 1.1.1. The module specifications are 3 KV, 1 mA, and has a power limit of 1.5 W.
  - 1.1.2. The custom loads for this design are 1.5 M $\Omega$  for full current and greater than 6 M $\Omega$  for full voltage.
- 1.2. Modified the current load box to ~1.5 M $\Omega$  and started testing module 0305 in slot 0.
  - 1.2.1. The test parameters are: Vmax 1550 KV, 50 V per adjustment with a dwell time of 15 s.

2. New test chassis design.

- 2.1. The chassis will have 48 channels; a multiplexing scheme will be developed to manage switching efficiently. This can be done with banks of redundant relays and relays to control power to each bank.
- 2.2. Established independent measurement mode. The voltage measurement resistor should be selected with an idea to manage ranging of the multimeter and ensure a standard resolution.
  - 2.2.1. A 100 ohm resistor will ensure that the measured voltage stays less than 100 mV @ 3000 V supplied.