

G2C1 Module ESD Testing Details

July 22, 2013

The G2C1 module was designed to survive touch surface ESD levels set by worldwide Gaming Commissions. These are much higher than standard industrial levels, and are between 20 – 27KV. The exact level and test conditions can be found in various Commission documents. The G2C1 passed these tests as administered by Reach’s customer; we do not have access to these results.

The metal bezel that was used for the tests described above is shown below (unpainted raw aluminum). A black conductive gasket was used between the back of the bezel and the front of the G2C1 module. Testing was done using the G2C1 with resistive touch.

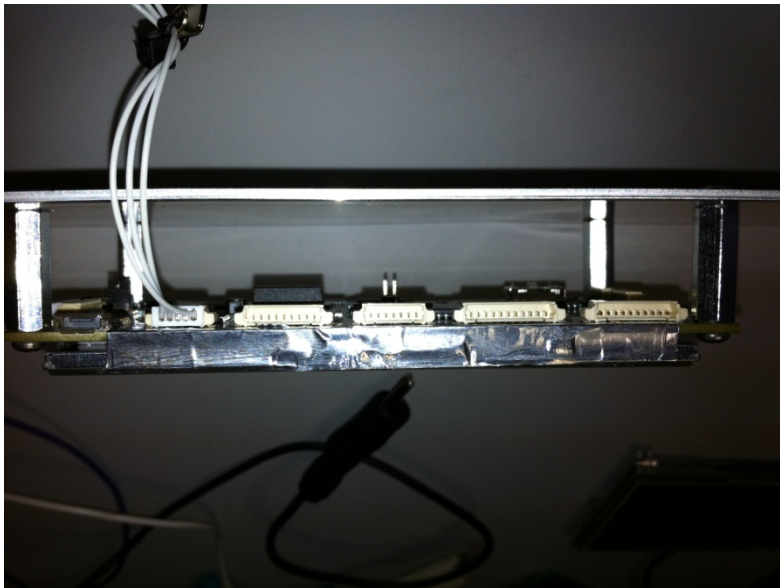
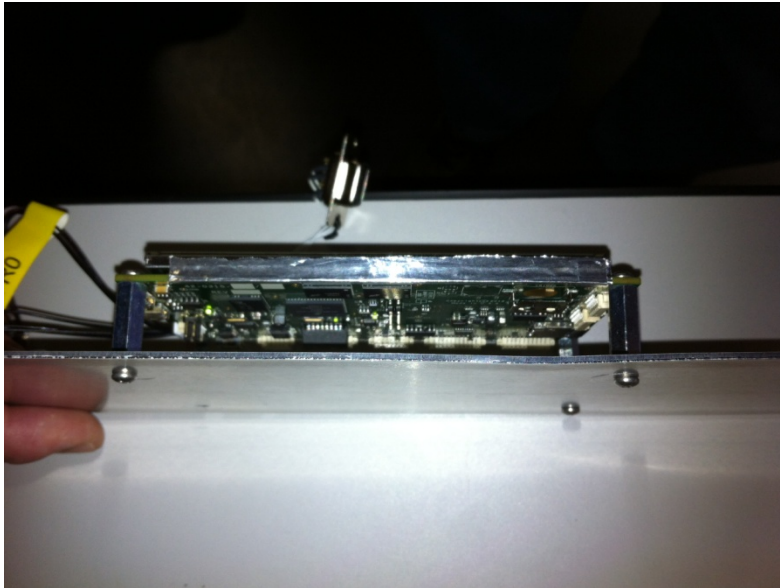
Front



Back



Reach conducted ESD tests using conductive metal tape to simulate the effect of a conductive bezel. The module was attached to a large ground plate with aluminum standoffs:



The test results were that the unit survived the maximum 25.5KV contact discharge provided by the ESD tester used. [See 11-second video.](#)

16KV ESD protection is provided on all I/O ports using a combination of PCB spark gaps, TVS diodes and ESD protection in the interface silicon devices.