

Field Uniformity Test System

Author: Nathan Scharfe, Proximal Technologies

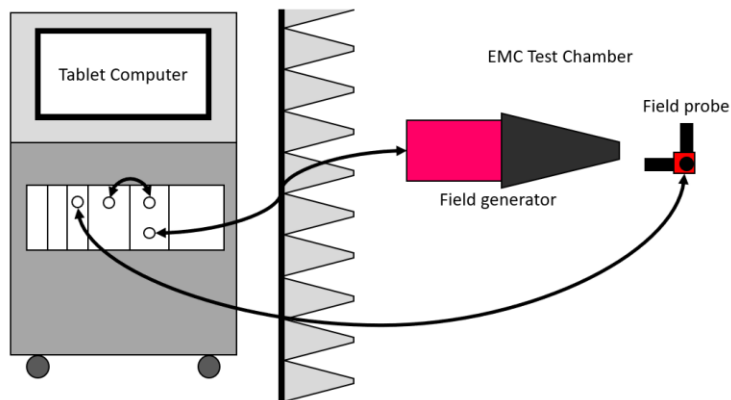
Tags: EMC test, Field Uniformity, custom integration

"Is that LabVIEW? I didn't know LabVIEW software could be made to look so nice!"

-Customer reaction

The Challenge

Integrating hardware and software for a turnkey field uniformity test system that provides an intuitive user experience and minimizes test time.



The Solution

Proximal Technologies' engineers combined off-the-shelf hardware and custom LabVIEW software to create a complete solution that provides accurate and repeatable measurements.

Problem Background and Solution

The customer for this system is a world-leader in EMC testing. Having developed state-of-the-art hardware for electromagnetic field generation and measurement, the customer needed help turning the various system components into a complete turnkey solution for testing the uniformity of the electromagnetic field in an anechoic test chamber.

Proximal Technologies built a custom software suite in LabVIEW that automatically runs through the pre-test startup sequence to calibrate the instruments, with only minimal user interaction. Safety interlocks ensure that the test chamber is cleared of personnel before RF signal generation begins. Once the instruments have been calibrated, the user is presented with an intuitive graphical user interface to

select the location to test with the electromagnetic field probe. The entire test system is designed to conform to the IEC 61000-4-3 standard.

Having selected a probe location to test, the software automatically collects the data and stores it to the user-specified location on the PC. The user is then prompted to adjust the probe to the next test position and test again. Once enough data points have been collected, the system automatically displays the Field Uniformity test results for the RF chamber.

Next Steps

Do you need a similar solution? If you have need for custom hardware and software integration, we at Proximal Technologies are ready to help!

Contact information:

Nathan Scharfe

Proximal Technologies

www.proximalcorp.com

+1 (512) 554-3948

nathan@proximalcorp.com