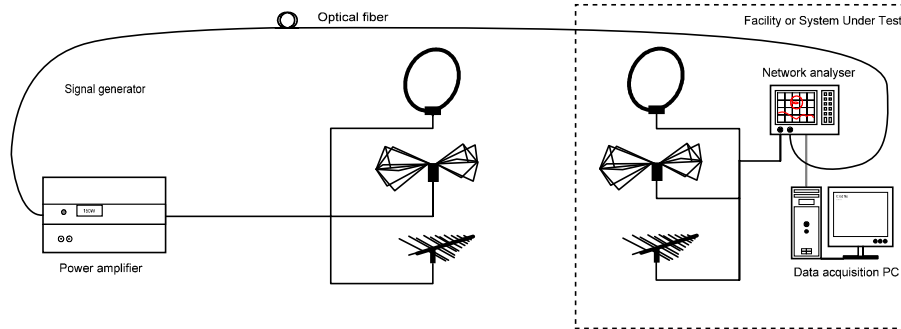# Shielding Effectiveness (SE)

The purpose of the Shielding Effectiveness (SE) test is to demonstrate the compliance of a facility and apertures POE with the shielding performance required. Montena has developed a LabVIEW software application to simplify the shielding effectiveness assessment according to MIL-STD-188-125 test methods. The complete test setup is delivered with the software designed to drive a signal generator, amplifiers, a network analyser as well as RF-switches interconnecting the equipment.

➔ Measurement automation with frequency sweeping and data collection
➔ Automatic switching between amplifiers and antennas
➔ Generation of measurement reports
➔ Software application can be used for IEEE Std 299 shielding effectiveness tests
➔ Delivery and installation of complete test system

Continuous Wave Immersion (CWI)

Verification of small and mobile facilities is usually performed with the exposure of the system to a threat level EMP using a pulse simulator as presented on pages 4 and 5. But the verification of large or fixed facilities can only be performed with a low level illumination field in the frequency domain. It involves measuring the residual fields, charge/current densities and currents inside the facility while sweeping in the frequency domain on the whole EMP spectrum. It is then possible to assess the expected internal residual electromagnetic pulse due to the exposure to EMP by means of fast Fourrier transform and extrapolation. Montena supplies the entire test setup, including a LabVIEW software application.
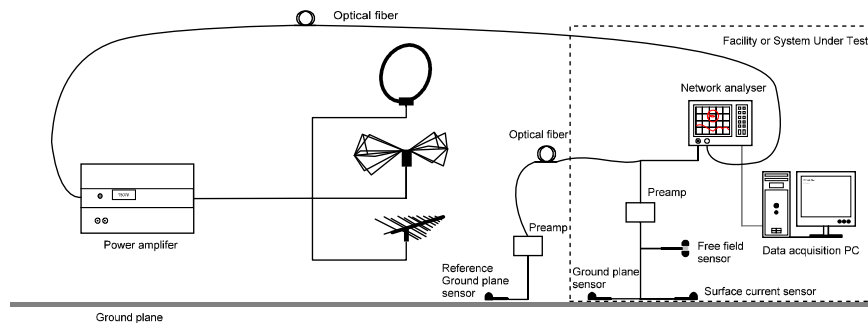
➔ Measurement automation with frequency sweeping and data collection
➔ Automatic switching between amplifiers, antennas and sensors
➔ Measurement chain compensation and post-processing
➔ Computation of all pass-fail criteria according to the standard including the internal threat current
➔ Report and data file generation
➔ Delivery and installation of complete test system

montena