

IP Measurement of the Coupled Power to a Device Under Test in a Reverberation Chamber #MEAS #MSC

Background and problem: Reverberation chambers are commonly used to test the immunity against high intensity radiated fields. The chamber acts as a resonator with a preferably high quality factor and low losses. In the steady state, the input power equals the power loss. From the difference between the power loss in the empty chamber and the chamber loaded with the device under test (DUT), the coupled power to the device under test can be determined.

Task: Such an indirect measurement shall be done in different frequency ranges with diverse DUTs in the three mode-stirred chambers of the chair for electromagnetic compatibility. For simplicity, plain monopole antenna with one main resonance shall be used as a DUT. The resonant frequency and bandwidth of the DUT shall be determined from the frequency dependence of the coupled power to the DUT.

The experimental results shall be validated by a direct measurement of coupled power to the DUT. The discrepancies between both measurement shall be discussed. Also the uncertainty of the indirect measurement as well as its reasons shall be analyzed

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◀ Vorherige Meldung

Nächste Meldung ▶