Dokumenttyp: Konferenzbeitrag


Titel des Beitrags: Near-Field Measurement and Analysis of Noisy Electromagnetic Emissions: Towards Stochastic Energy-Oriented Approaches

Abstract: This paper presents Near-Field measurement and analysis of Noisy Electromagnetic Emissions radiated from integrated circuits and systems. Energy-Oriented approaches suitable for stochastic signals and accounting for Field-Field correlations are proposed and assessed. Dedicated wireless Chip-to-Chip communication link and connected smart RFIC objects are used as carrier for evaluating the distribution of radiated electromagnetic fields both in the frequency-domain and the Time-Domain. Perspectives for high spatial resolution Near-Field scanning systems with controlled sensitivity and noise uncertainties are studied. Uses of UAV systems as floating measurement platform are drawn with possibility of wireless powering to overcome present limitation in power-supply and energy management.

Stichworte: Near-Field measurement of connected RFIC objects, IoT, MIMO, Stochastic Noise, EMC, EMI, Small cells

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