

Technology-Based Analysis of Probe Array Systems for Rapid Near-Field Imagery and Dosimetry

Probe arrays have drastically increased the attractiveness of near-field techniques to characterize, rapidly and accurately, both intentional and not-intentional radiating systems. While very successfully developed during the last decades for antenna measurements, probe array technologies have not yet demonstrated the same degree of maturity for near field imagery and dosimetry, where rapidity usually constitutes a key issue. Starting from the observation that current bottlenecks often results from technology issues, this paper analyses various probe array options. More prospectively, wireless technologies are shown to open a challenging space for next generations of probe arrays.

Index Terms—antenna, measurement, near-field, imaging, dosimetry, ISM applications.