KOLLOQUIUM

Elektrotechnik-Elektronik-Informationstechnik

Applications and Trends in RF MEMS

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Diskussionsleitung: Prof. Dr.-Ing. G. Fischer

Microelectromechanical Systems (MEMS) applications in RF and microwave electronics are on the verge of revolutionizing wireless communications. In this turotial we discuss the fundamentals of this exciting technology, potential pitfalls to be encountered, and typical applications where MEMS is expected to make the greatest impact in RF/microwave circuits and systems. In particular, the ability of MEMS' fabrication techniques to enhance the performance of passive components, e.g., capacitors, inductors, transmission lines, and switches, is addressed, and a number of potential wireless system opportunities, namely, wireless transceivers, routing networks, and tracking antennas for mobile multimedia communications, awaiting the maturation of MEMS, are discussed.