

PANEL

Monday, June 17, 1996

Low Voltage, Low Power Consumption RFICs: It's Sooo . . . Easy

Location: MCC 102
Time: 12:00 noon–1:30 pm
Sponsors: MTT-6 Microwave and Millimeter-Wave Integrated Circuits
1996 MMWMC Symposium TPC
Organizers: Fazal Ali, Nokia Mobil Phones
Mike Golio, Motorola
Moderators: Fazal Ali and Mike Golio
Panelists: Bob Trew, Case Western University
Nan Lei Wang, Etron Integrated Circuits
Mike Golio, Motorola
Jim Griffiths, Raytheon ADC
Pete Bachert, RF Micro Devices
Julio Costa, Motorola SPS

Abstract:

The basic RFIC components (RF switches, LANs, mixers and power amplifiers) required for the wireless communication markets operating in the 800 MHz—2.5 GHz frequency range are undergoing a revolutionary change in terms of DC power consumption. On both the research and production front, the reduced power consumption in ICs is recognized as a key competitive advantage. Next to low cost, the minimum power consumption is the most critical distinguishing feature that can be offered by wireless circuit designers because it translates into smaller, lighter batteries and longer battery lifetime. The purpose of this discussion is to consider different device technologies and circuit techniques suitable for reducing DC power especially in receiver and power amplifier portions of the RFICs. Should it be a HEMT, HBT, MESFET, Si BJT, SiGe HBT, MOSFET or ??????