Abstracts

Panel Session: Device Technology Choices for Commercial Portable Power Amplifier Products (1997 [RFIC])

"Panel Session: Device Technology Choices for Commercial Portable Power Amplifier Products (1997 [RFIC])." 1997 Radio Frequency Integrated Circuits (RFIC) Symposium 97. (1997 [RFIC]).

Both Silicon and compound semiconductor device technologies have been pursued as solutions for use in commercial communications applications. While GaAs technologies (MESFET, PHEMT, HBT) have met the technical requirements, their cost is considered prohibitive relative to Silicon devices for many of the commercial products. In contrast, RF silicon MOSFETs have found application for many of the low tier radio products, but have failed to match the performance of GaAs devices. A pattern has emerged with compound semiconductor devices winning the competition for initial high tier product introductions, but losing to Silicon devices for higher volume/lower cost products. These factors include a trend to streamline device processing, incorporation of innovative design ideas, emphasis on emerging digitally modulated systems, as well as a continuing evolution and maturity of device technologies. This panel will focus on device technology and designs in regards to low cost commercial power amplifiers. The panelists will present their choices for best technology for commercial power amplifiers.

❑ Return to main document.