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Abstract: Mobile RF Front End Integration

The mobile phone has become a big part of our daily lives which has created an exponential growth in the network data and an ever increasing complex RF Front End to support this growth. This in turn has demanded more complex requirements for the filters, switches and power amplifiers (PA) in the front end. In order to address this increase in complexity there has been a migration from discrete solutions to highly integrated solutions but this increase in complexity and integration creates significant design challenges. Plus there are two integrated implementations competing for market share, a system on chip (SOC) and system in package (SIP) solution. This presentation will overview the state-of-the-art in front end module design and integration, comparing SOC and SIP implementations, offering high performance, small and low cost solutions to the identified problems.

Speaker: James P. Young, Skyworks Solutions, Inc.

James P. Young Biography

Vice President, Advanced Development
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James P. Young is vice president of advanced development at Skyworks Solutions, Inc. where he is responsible for mobile handset power amplifier and front end module design. His expertise includes power amplifier and RFIC circuit and system design in CMOS, SOI, BiCMOS, bipolar, and GaAs technologies. James holds 18 patents, has authored or co-authored over 22 papers, and taught several short courses mainly on RFIC design. He holds a bachelor's of science in electrical engineering from Rose-Hulman Institute of Technology in Terra Haute, Indiana.

