Abstracts

A high performance switched-LNA IC for CDMA handset receiver applications

R. Moroney, K. Harrington, W. Struble, B. Khabbaz and M. Murphy. "A high performance switched-LNA IC for CDMA handset receiver applications." 1998 Radio Frequency Integrated Circuits (RFIC) Symposium 98. (1998 [RFIC]): 43-46.

This paper reports on a low voltage, low noise, high linearity amplifier with on-chip bypass switch to provide extended dynamic range. The amplifier is designed for the wide dynamic range requirements of cellular band CDMA handsets. In high gain mode, the amplifier achieves 16.5 dB gain, 1.5 dB noise figure and 0 dBm input IP3 with just 10 mA of current from a 2.7 V supply. In bypass mode, the input IP3 increases to +27 dBm with <5 dB insertion loss and <100 /spl mu/A of DC current. This patented M/A-COM topology switched-LNA is fabricated on M/A-COM's 0.5 /spl mu/m low noise MESFET process and packaged in a low cost 8 lead MSOP plastic package.

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