Abstracts

A new GaAs variable-gain amplifier MMIC with a wide-dynamic-range and low-voltage-operation linear attenuation circuit

M. Inamori, K. Motoyoshi, T. Kitazawa, K. Tara and M. Hagio. "A new GaAs variable-gain amplifier MMIC with a wide-dynamic-range and low-voltage-operation linear attenuation circuit." 2000 Transactions on Microwave Theory and Techniques 48.2 (Feb. 2000 [T-MTT] (Mini-Special Issue on Research Reported at the 1999 Radio Frequency Integrated Circuits (RFIC) Symposium)): 182-186.

A 40-dB dynamic-range variable-gain amplifier (VGA) designed for the code division multiple access (CDMA) cellular phone has been developed. A wide-dynamic-range VGA under a low control voltage of 2.0 V, compatible with high linearity and low distortion characteristics, essential for CDMA, is realized by the new gain control technique. It greatly contributes to the high performance and small size of RF circuits for CDMA cellular handsets.

❑ Return to main document.