# Abstracts

## High dynamic range variable gain amplifier for CDMA applications (1997 Vol. I [MWSYM])

*M. Kasashima, S. Tachi and K. Tanaka. "High dynamic range variable gain amplifier for CDMA applications (1997 Vol. I [MWSYM])." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 5-8.*

A new attenuator and threshold voltage (Vth) compensation circuits using GaAs MESFETs were designed and developed and this circuit was applied to develop a variable gain amplifier (VGA) for CDMA cellular phone systems. This VGA is packaged in an 8 pin plastic package and demonstrated high dynamic variable gain range (80 dB/100 MHz 70 dB/250 MHz 55 dB/500 MHz). High gain of 60 dB is observed for 85 MHz with low power consumption (Vdd=+2.7 V, Idd=6 mA). Since depletion mode MESFETs are used no negative supply is needed for gain control.

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