Abstracts

A single-chip PHS front-end MMIC with a true single +3 V voltage supply

T. Tsutsumi, Y. Kawaoka, T. Katamata, T. Yamamoto, T. Marukawa, F. Okui, S. Fukuda, E. Imamura and E. Grace. "A single-chip PHS front-end MMIC with a true single +3 V voltage supply." 1998 Radio Frequency Integrated Circuits (RFIC) Symposium 98. (1998 [RFIC]): 105-108.

A small single-chip PHS RF front-end GaAs MMIC operating with single +3V supply voltage has been developed. This MMIC integrates transmitter power-amplifier, receiver LNA, switchable attenuator, RX/TX switches, and control logic in a single-chip. Unlike conventional GaAs MESFET technology, the new power GaAs MESFET incorporated in this chip does not require negative voltage gate bias, and as a result, the MMIC can be operated by a true single-supply voltage without internal or external negative voltage generator.

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