Abstracts

Integrated even harmonic type direct conversion receiver for W-CDMA mobile terminals (2002 Vol. I [MWSYM])

K. Itoh, T. Yamaguchi, T. Katsura, K. Sadahiro, T. Ikushima, R. Hayashi, F. Ishizu, E. Taniguchi, T. Nishino, M. Shimozawa, N. Suematsu, T. Takagi and O. Ishida. "Integrated even harmonic type direct conversion receiver for W-CDMA mobile terminals (2002 Vol. I [MWSYM])." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 9-12 vol.1.

This paper is the first demonstration of the overall performance of the integrated even harmonic type direct conversion receiver (EH-DCR) with the RAKE receiver. The configuration of the integrated EH-DCR and its evaluation results based on the 3GPP definition are indicated. The RX LTCC module with the SiGe RX-IC, and BiCMOS ABB-IC are developed to achieve high integration of the receiver with filters. The integrated EH-DCR with low second order distortion can achieve high sensitivity and selectivity of the W-CDMA receiver, even with interference due to the transmitting signal. Described evaluation results satisfy the specifications defined by 3GPP. This paper clarifies effectiveness of the integrated EH-DCR for the third generation mobile terminals.

❑ Return to main document.