# Abstracts

## A highly integrated GPS receiver for cellular handset

*F. Dantoni, A. Holden, S.T. Fu, D. Sahu, S. Venkatraman and S.H.K. Embabi. "A highly integrated GPS receiver for cellular handset." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 93-96.*

A highly integrated dual conversion heterodyne GPS receiver is reported. The receiver chip includes a 2.9 dB NF LNA, an image-reject mixer with 32 dB image rejection. The on-chip IF chain, which consists of a VGA, a 2nd mixer and filtering, has a maximum gain of 83 dB, a gain range of 45 dB and a 7 dB NF. A 4-bit ADC is integrated on chip for enhanced SNR. The PLL with its VCO are also integrated. The total NF is 3 dB with a total 121 dB voltage gain. The chip consumes 132 mW at 2.7 V.

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