Abstracts

A GaAs MMIC active filter with low noise and high gain

S.-S. Sabouri. "A GaAs MMIC active filter with low noise and high gain." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1177-1180.

An active image rejection filter applying actively coupled passive resonators is presented. The filter has very low noise and high insertion gain, which may eliminate the use of an LNA in front-end applications. The filter is applicable as a single block LNA and image rejection filter in cordless and mobile telephone systems working around 2 GHz, e.g. DECT and DCS-1800 systems. The GaAs MMIC chip area is 3.3 mm/sup 2/. The filter has 12 dB insertion gain, 45 dB image rejection, 6.2 dB SSB noise figure and consumes 13 mW power from a 3 V supply.

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