A Variable Gain IF Amplifier with –67dBc IM₃-Distortion
at 1.4V_{pp} Output in 0.25μm CMOS

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Abstract
A variable gain amplifier based on feedback has IM₃-products below –67dBc around the 10.7MHz IF of an AM/FM radio receiver. It consumes 2.7mA from a 2.5V supply delivering a differential output signal of 1.4V_{pp} with 96dB dynamic range in a 9kHz AM channel. The active area is 0.038mm² in 0.25μm CMOS.