

# **A 0dB-IL, 2140±30 MHz Bandpass Filter Utilizing Q-Enhanced Spiral Inductors in Standard CMOS**

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A 3rd-order Chebyshev bandpass filter, that employs on-chip passive elements with Q-enhancement technique, achieves an insertion loss of 0 dB and a passband of 60 MHz around a center frequency of 2140 MHz. Fabricated in a 0.25- $\mu\text{m}$  CMOS, the filter operates with 2.5-V supply and 7 mA. The filter occupies an area of 1.3 mm $\times$ 2.7 mm.