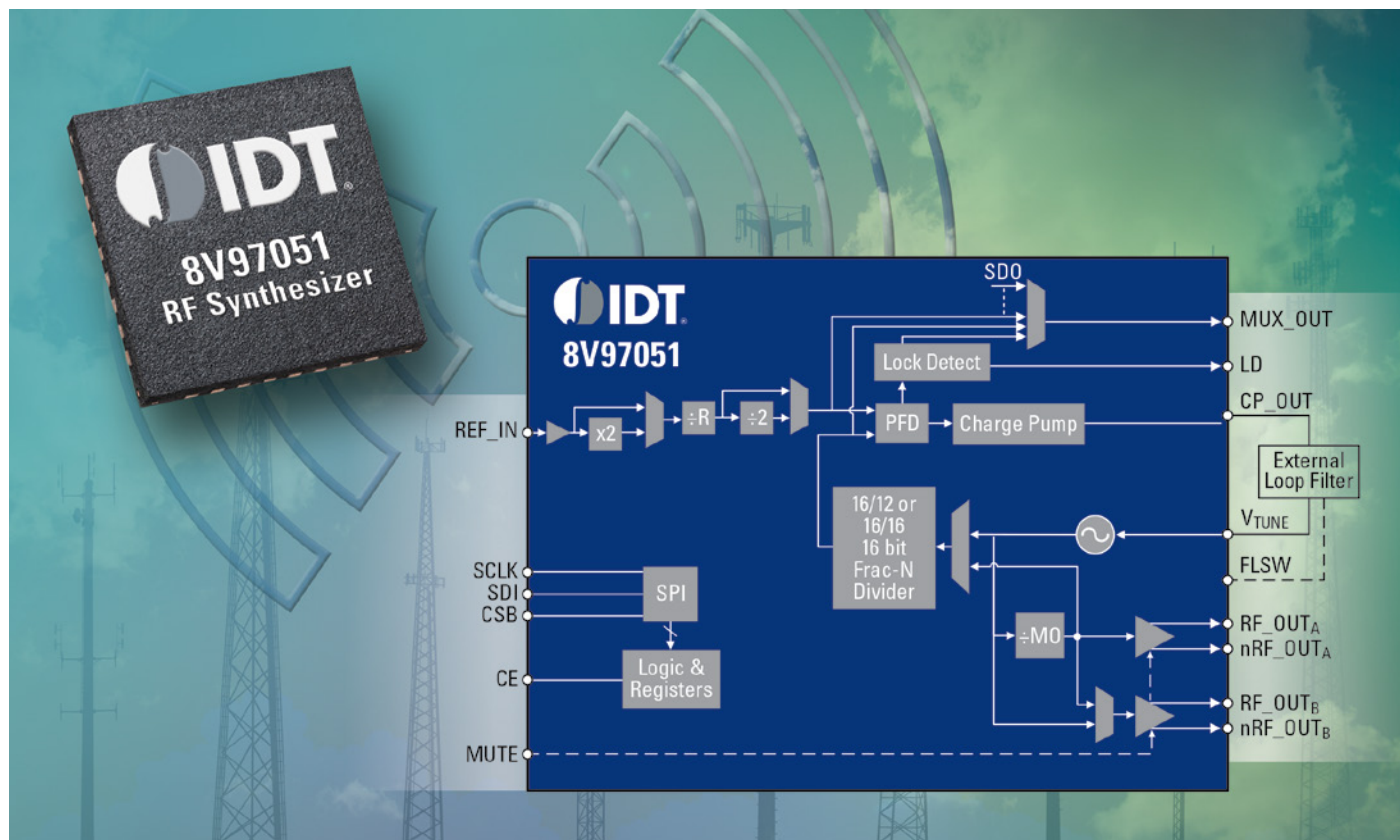


# 8V97051 Low-Power Wideband RF Synthesizer / PLL



## FEATURES

- GSM-grade wideband RF synthesizer / PLL
- Generate frequencies from 34.375MHz to 4.4GHz
- 380mW typ power consumption
- Excellent phase noise performance  
-143dBc/Hz at 1MHz offset for a 1.1GHz output
- Excellent spurious performance including integer boundary spurs
- 5 x 5 mm 32-VFQFN package
- Pin compatible to similar devices from other manufacturers

## TARGET MARKETS/APPLICATIONS

Base stations  
Distributed antenna systems  
Instrumentation  
Industrial  
Microwave point-to-point  
Radar

The 8V97051 wideband RF synthesizer / PLL with integrated VCO offers an industry-leading combination of high performance, low power consumption and wide tuning range.

The device offers an integrated voltage controlled oscillator (VCO) with a large tuning range capable of providing multiband local oscillator (LO) frequency synthesis, limiting the need for multiple narrow band RF synthesizers / PLLs. This reduces the bill of materials, and the design complexity, lowering the cost of developing radio frequency products. It provides a solution that addresses the challenges of frequency generation for high performance mixers and demodulators in RF board designs.

The device's low power consumption is ideal for high-performance applications with limited or no air flow, such as RF cards in base stations, or for applications powered by Ethernet and portable instrumentation.

In addition to offering low phase noise, the 8V97051 provides 16 bits of frequency resolution that makes it ideal for precise RF instrumentation or radar applications. This device can also be used in microwave transceivers and industrial electronic products. Extended registers allow for additional resolution and features for further control of the LO function.

To learn more about IDT's 8V97051 RF PLL, visit: [IDT.com/8V97051](http://IDT.com/8V97051)