

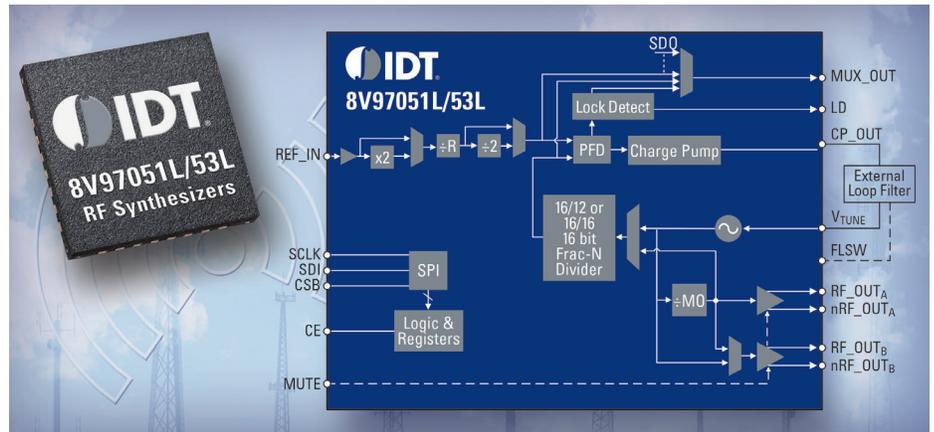
# 8V97051L / 8V97053L High Performance RF Synthesizers / PLLs

## FEATURES

- GSM-grade wideband RF synthesizers / PLLs
- Generate frequencies from 34.375MHz to 4.4GHz
- 380mW typical power consumption
- Excellent phase noise performance – 148dBc/Hz at 1MHz offset for a 745MHz output
- Excellent spurious performance including integer boundary spurs
- Pin-compatible to similar devices from other manufacturers
- Supported by IDT’s Timing Commander™ design and optimization tool
- 5 x 5 mm 32-VFQFN package

## TARGET MARKETS/APPLICATIONS

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



The 8V97051L and 8V97053L wideband RF synthesizers / PLLs with integrated VCO offer a leading combination of high-performance, low-power consumption and wide tuning range.

These devices offer an integrated voltage controlled oscillator (VCO) with an octave of frequency tuning range capable of providing multiband local oscillator (LO) frequency synthesis. The wideband capability of these devices makes them ideal for reuse in several different high performance applications helping lower the cost of ownership for radio frequency products. The 8V97051L and 8V97053L offer low-power dissipation without compromising the performance over the whole ambient operating temperature range. The devices also operate up to +105°C case temperature, reducing the thermal constraints for the application. These characteristics make the devices ideal for high-performance applications with limited to no airflow, or for applications with reduced power budget (i.e. DAS, portable instrumentation). This family of RF synthesizers provides solutions that address the challenges of frequency generation for high-performance mixers and demodulators in RF board designs.

The 8V97051L offers a consistent phase noise performance across the whole frequency range while the 8V97053L is further optimized for GSM and E-UTRA Band 42 applications. In addition to offering low phase noise, the 8V97051L and 8V97053L provide 16 bits of frequency resolution for precise RF instrumentation.

To learn more about IDT’s RF Synthesizers / PLLs, visit: [idt.com/RF-PLL](http://idt.com/RF-PLL)