

Press Release

Analog Devices Introduces Industry's Most Advanced PLL/VCO Solution for Next-Generation RF, Microwave and Millimeterwave Applications

Jun 4 2018 - Norwood, MA

Analog Devices, Inc. (ADI) announced today a state-of-the-art synthesizer consisting of a phase-locked loop (PLL) with fully integrated voltage controlled oscillator (VCO) as well as integrated low dropout regulators (LDOs) and integrated tracking filter technology. The new ADF4371 supports RF/microwave system designs that must meet the most exacting next-generation requirements across multiple markets, including aerospace and defense, test/measurement, communications infrastructure, as well as high-speed converter clocking.

- View the ADF4371 product page, download data sheet, order samples and evaluation boards: <http://www.analog.com/adf4371>

Designed utilizing ADI's 25 years of leading RF and microwave synthesizer expertise, the ADF4371 is the highest frequency synthesizer on the market today and offers the widest continuous RF output range of 62MHz to 32GHz. Together with ultra-low PLL FOM (-234dBc/Hz), ultra-low spurious (-100dBc typ.), low VCO phase noise (-134dBc/Hz @1MHz offset at 8GHz), and with built-in tracking filter technology, this device leads the way for performance and adaptability. Its feature-rich, highly configurable architecture means that designers can now choose a single, ultra-compact, synthesizer solution to cover almost any LO/clock requirement within these frequency ranges, thereby reducing development costs, risk and time to market.

The ADF4371 facilitates implementation of high resolution (39-bit) fractional-N or integer-N PLL frequency synthesizers when used with an external loop filter and an external reference source. The wideband microwave VCO design allows frequencies from 62.5 MHz to 32 GHz to be generated. The device features the industry's lowest jitter (36fs at 10 GHz) and reference spurious (-100dBc typ.), together with operation to 105°C without loss of lock. For applications requiring very small compact footprints, the ADF4371 supports integrated power supply decoupling, integrated LDOs and integrated harmonic tracking filters. The tracking filter technology facilitates at least 30dB harmonic and sub-harmonic rejection across the entire VCO range. This hugely reduces the total solution footprint, particularly in the case where fixed range filters are required to meet these rejections across octave bandwidths. For applications that do not require the full frequency range capability of the ADF4371 (up to 32GHz), ADI also offers the ADF4372 with operation up to 16GHz.



ADF4371 Product Features:

- Ultra-low FOM (Normalized Phase Noise Floor): -234dBc/Hz
- High Phase Frequency Detection (PFD) capability up to 250MHz
- Lowest integrated phase noise (jitter) < 36fs @ 10GHz
- Lowest reference spurs <100dBc typical
- Integer boundary spurs (-90dBc @ 960kHz offset from integer channel)
- Integrated harmonic filters

Product	Sample Availability	Production Availability	Package
ADF4371	Now	Sep 2018	7mm x 7mm 48-Lead LGA
ADF4372	Now	Oct 2018	7mm x 7mm 48-Lead LGA

The ADF4371 and ADF4372 are supported within ADI's popular ADIsimPLL™ circuit design and evaluation tool that assists users in evaluating, designing and troubleshooting RF and microwave systems. Learn more at: <http://www.analog.com/adisimpll>

About Analog Devices

Analog Devices (Nasdaq: ADI) is a leading global high-performance analog technology company dedicated to solving the toughest engineering challenges. We enable our customers to interpret the world around us by intelligently bridging the physical and digital with unmatched technologies that sense, measure, power, connect and interpret. Visit <http://www.analog.com>

ADIsimPLL™ is a trademark of Analog Devices, Inc.

Read and subscribe to Analog Dialogue, ADI's monthly technical journal, at: <http://www.analog.com/analog-dialogue.html>

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