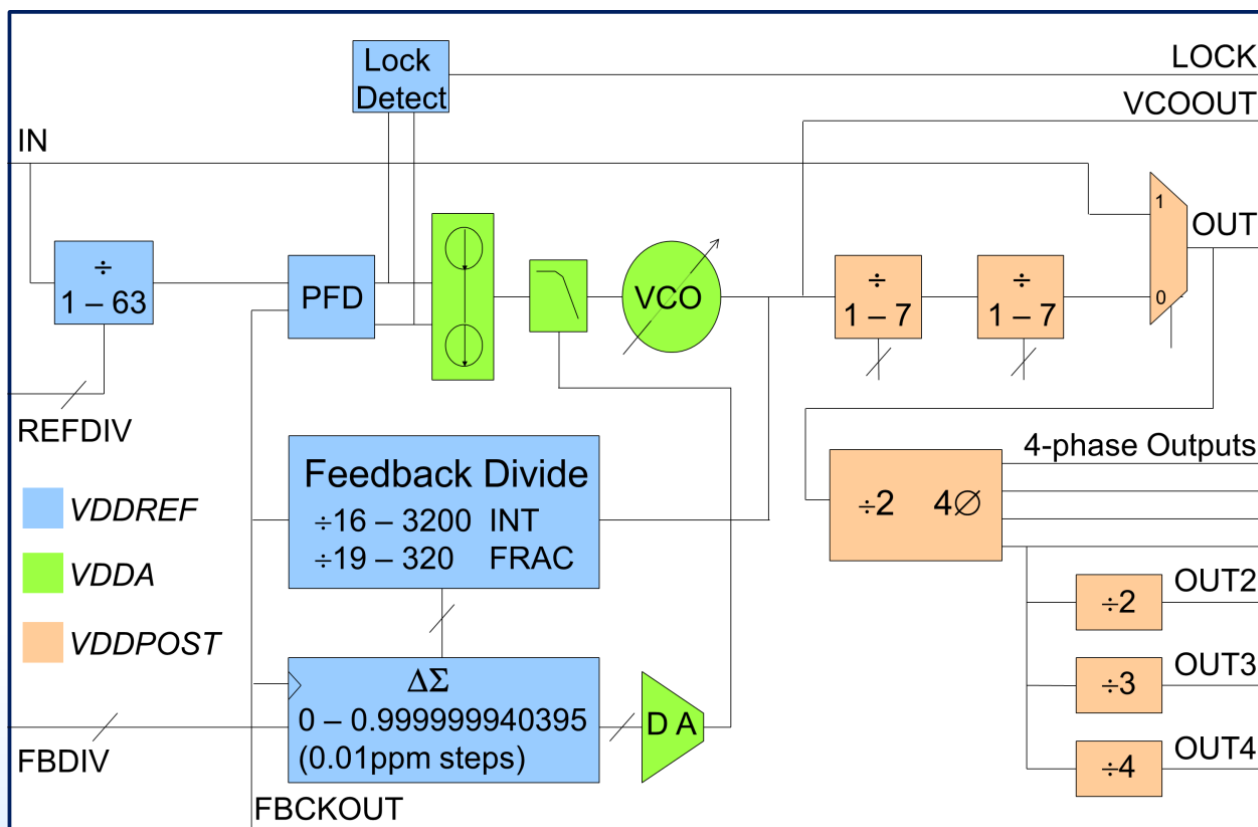




Overview

The Silicon Creations Fractional-N PLL series are multi-functional, general purpose frequency synthesizers. A rich set of features are combined with low power, low area, best-in-class jitter performance and widely flexible programming making these PLLs suitable for a wide range of applications from general purpose and spread spectrum clocking to clocking of ADC and AFE circuits.



Features

- Very wide input and output frequency ranges
- Input over 3 orders of magnitude
- Output from a few MHz to faster than practical for timing closure in each process
- Integrated Long Term Jitter below 3ps RMS in fractional mode (or < 1ps RMS for LJ version) ... suitable for PCIe reference clocks
- Isolated analog supply allows for excellent supply rejection in noisy SoC applications and shared supplies in less demanding applications
- Minimal, or no additional on-chip supply decoupling required
- Loop automatically adjusts for any input frequency, so no complicated programming is required
- Fast locking time of <1000 reference cycles with glitch-free LOCK output
- Reprogrammable while running – ideal for DVFS
- SCAN included for FinFET PLLs
- Proven and highly programmable – test your new applications before tapeout to eliminate the risks from new/compiled PLLs

Availability

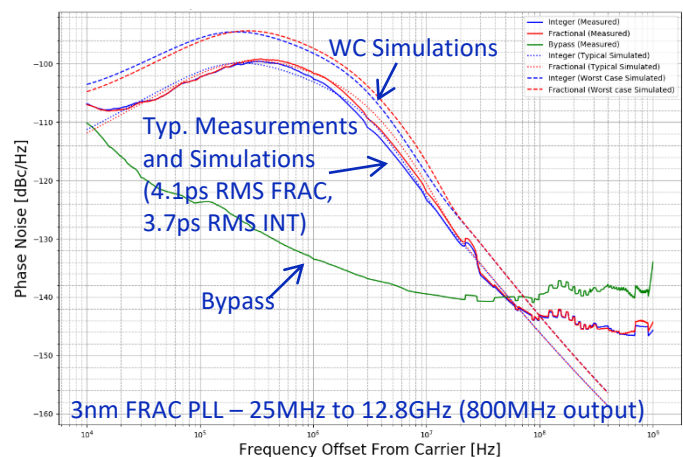
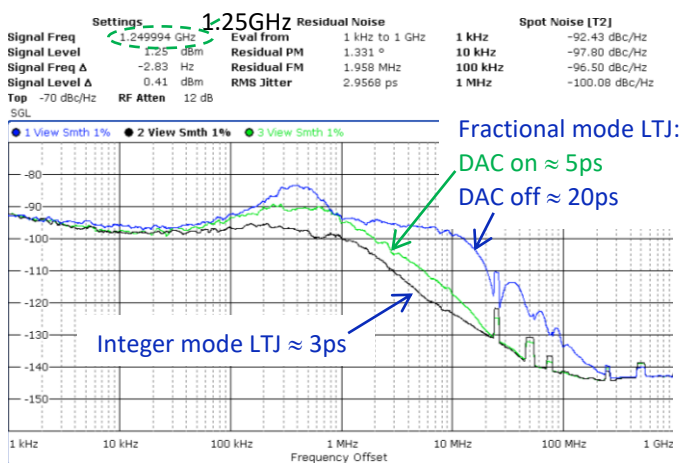
Mass production in 3n through 180n and at GF, IBM, TSMC, Intel, Samsung, SMIC, ST, and UMC.

Integer-only, Core-voltage only, Multi-phase (DDR), Low-area, Deskew, IoT, Ultra-low power and very-low jitter variants of our PLLs are also available.

Deliverables

- GDSII
- CDL Netlist
- Rich Verilog Model with Jitter and loop dynamics
- Liberty timing models (.lib)
- LEF layout abstract
- Application Note
- Available RTL for Spread Spectrum Modulator, Jitter Cleaner and Jitter Monitor
- Web-solver to explore settings for ideal power/performance tradeoff
- Industry leading support by IP designers
- Automotive safety documents available
- Comprehensive silicon test reports

Predictable and excellent performance



About Silicon Creations

Silicon Creations is focused on providing world class silicon IP for precision and general-purpose timing (PLLs), Chip-chip SerDes and high-speed differential IOs.

Our IP is in production from 3n to 180n. Our complete commitment to our customer success and our support will delight you. Our IP has an excellent record of first silicon to mass production in customers' designs. Our key designs have been comprehensively verified in our labs as well as in mass production with multiple customers.

Silicon Creations was founded in 2006, is self-funded, growing and ISO9001 certified. We have development centers in Atlanta, USA and Krakow, Poland and world-wide sales representation.

Contact us

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Related Information

- www.siliconcr.com
- Products
- Ring PLLs

