Integer-N PLL Frequency Synthesizers

Analog Devices' ADF4000 series offer a choice of industry-standard pinout with improved performance, or new pinout with increased software programmability.
The ADF4000 series of PLL synthesizers consists of single and dual devices in a range of configurations and frequency ranges. Using a high-performance BiCMOS process technology, phase noise is typically 6 dB better than other manufacturers' products.
The ADF4116, ADF4117, and ADF4118 are pin-compatible lower-phase-noise replacements for the LMX2306, LMX2316, and LMX2326, single devices respectively. These devices use fixed dual-modulus prescalers, and can operate up to 3.0 GHz (ADF4112). Drop-in replacements for the LMX dual devices are also available.
The ADF4110 through ADF4113 single devices (and ADF4210 through ADF4213 dual devices) offer additional functions in a nearly identical pin configuration. This change allows many more features to be software-controlled, including prescaler division ration, anti-backlash pulse width, and charge-pump current. Operation up to 4.0 GHz is possible.
This product includes many features such as pin-compatibility with LMX-23xx series synthesizers that allow easy system performance improvements with no hardware or software changes, proprietary pinout versions that allow additional flexibility and system optimization, availability in 16-pin TSSOP and 20-lead LPCC 4 x 4 mm chip-scale packages, wide operating power supply range (2.7 to 5/.5 Volts), with separate Vp for extended tuning range in 3-volt systems, a low supply current (typically 4.5 mA for the lower-frequency devices, slightly higher for devices operating above 1.2 GHz). All devices include low-current standby mode, evaluation boards and software.

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