CoreVCO - RadHard Wideband SiGe VCO for Low Ultra Low Noise Applications

Technical Data

CoreVCO

FEATURES

- *Dual RadHard VCO.*
- *0.7 GHz - 6.6 GHz VCOBJT with 2 GHz Phase Noise less than -112 dBc/Hz @ 100 kHz.*
- *0.9 GHz - 3.5 GHz VCOPMOS with 2 GHz Phase Noise less than –114 dBc/Hz @ 100 kHz.*
- *Single power supply of 5.0 V. Integrated bandgap reference and LDOs with power down mode.*
- *Broadband matched RF outputs delivering +2 dBm @ 2 GHz. 6 dB output power adjustment.*
- *SPI control interface. Digital calibration against temperature and process variations.*
- *Current consumption less than 120 mA.*
- *Small size QFN48 package 6 mm x 6 mm.*

APPLICATIONS

Satellite communications, Space applications, Microwave radios, Military End-Use, Wireless systems (GSM, WCDMA, LTE, WLAN, Bluetooth), Automotive, Industrial.

GENERAL DESCRIPTION

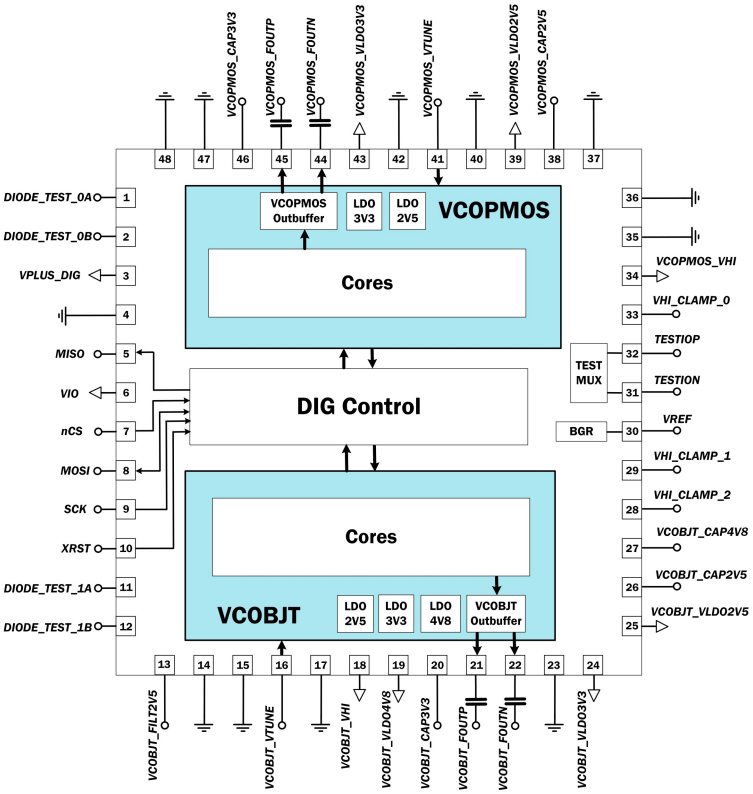
CoreVCO chip consists of two ultra low phase noise, wideband RadHard VCOs (VCOBJT and VCOPMOS) for space and other critical environments. In VCOBJT, the core is built around HBT bipolar transistors while in VCOPMOS the core is built around PMOS transistors. Both are controlled via SPI interface.

VCOs offer excellent phase noise performance in a wide frequency range and have intrinsic radiation tolerance. VCOs incorporate frequency selection by digital tuning words and analog tuning voltage.

VCOs are fabricated in 0.25 um SiGe process and packaged in QFN 6 mm x 6 mm package. VCOBJT and VCOPMOS are also available as silicon IPs.

www.corehw.com

GENERAL BLOCK DIAGRAM



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

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