

**10GHz VCO**



The ISL3090 is a 10GHz SiGe monolithic VCO circuit designed to simplify and reduce the cost and size of miniature wireless transceivers.

A fully integrated VCO requiring no external elements such as inductors or varactors greatly simplifies low cost local oscillator synthesized applications.

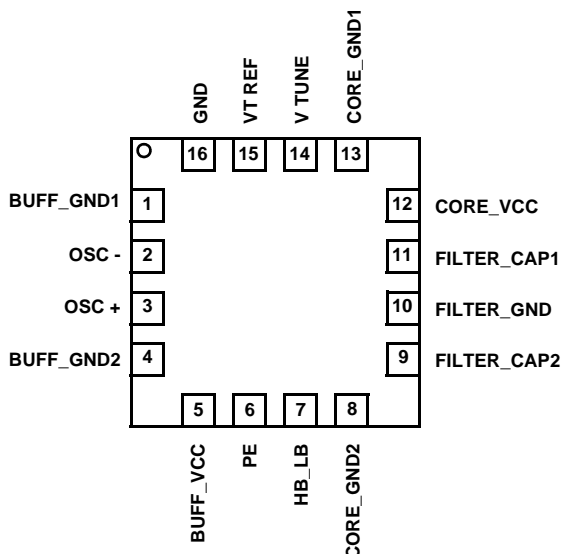
Included in this differential design is a high/low band selection and a low-power standby function.

The ISL3090 directly interfaces with Intersil's 2.4/5GHz dualband ZIF (zero IF) converter (ISL3690). The addition of the Intersil's Wireless LAN Media Access Controller and Baseband Processor (ISL3890) and Intersil's Power Amplifier (ISL3990) completes a WirelessLAN radio application targeting both the 802.11b 2.4GHz and 802.11a 5GHz standard.

The ISL3090 is housed in a 16 lead Quad Flat No Lead Plastic (QFN) Package suitable for Mini-PCI and PCMCIA applications.

**Pinout**

**ISL3090 (QFN)  
TOP VIEW**



**Features**

- Single Supply . . . . . 2.7V to 3.0V
- Frequency . . . . . 9648 to 10640MHz typical
- Fully integrated/no external varactors or resonators required
- Isolation output buffer/reduced load pulling
- Differential design/reduced spurs
- Digitally controlled power down mode

**QFN Package**

- Compliant to JEDEC PUB95 MO-220 QFN - Quad Flat No Leads - Package Outline
- Near Chip Scale Package footprint, which improves PCB efficiency and has a thinner profile

**Applications**

- High Data Rate Wireless LAN Systems Targeting the IEEE 802.11a and 802.11b Standards
- Only required VCO function for Intersil PRISM Duette™ chip set
- WLAN applications
- PCMCIA wireless transceivers
- TDMA packet protocol radios

**Ordering Information**

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. DWG. #
ISL3090IR	-40 to 85	16 Lead QFN	L16.3X3
ISL3090IR-TK	-40 to 85	Tape and Reel	

**Simplified Block Diagram**

