

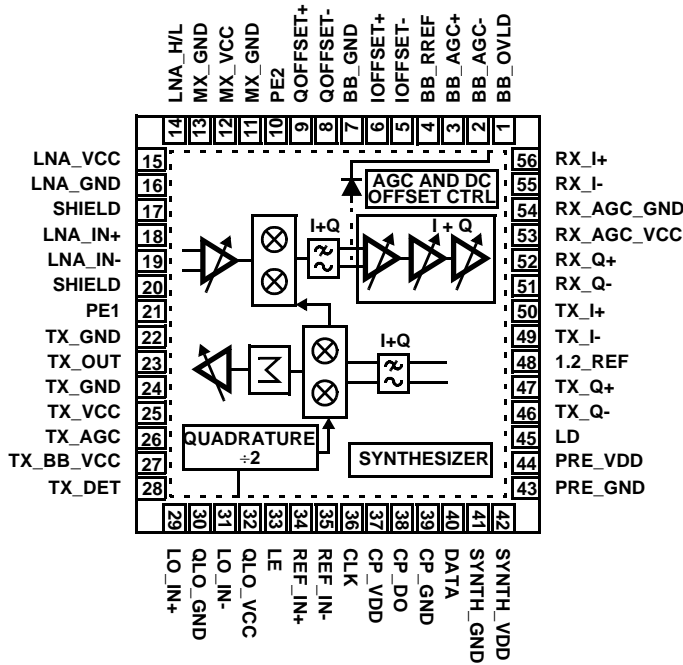
**Direct Down Conversion Transceiver**



The Intersil ISL3686B is a highly integrated SiGe process, direct down conversion transceiver and is part of the PRISM GT, 2.4GHz 54Mbps, IEEE802.11b/g compliant radio chipset. The ISL3686B directly interfaces with Intersil's ISL3865A Baseband Processor (BBP) and ISL3880 Integrated Medium Access Controller (MAC) with BBP. The addition of the ISL3984/85 Intersil power amplifier, and the ISL3084 5GHz VCO completes the LAN radio application.

**Pinout**

**ISL3686B (QFN)**  
TOP VIEW



**Features**

- Highly integrated RF to baseband solution
- Frequency of operation . . . . . 2.4GHz to 2.5GHz
- Low supply operation . . . . . 2.7V to 3.3V
- Noise figure . . . . . 5.1dB
- Voltage gain . . . . . +1.5dB to 81dB
- Gain and phase balance, typical . . . . . ±0.5dB, ±2deg.
- TX/RX switching speed . . . . . <1μs
- Direct simple interface to ISL3880
- Enhanced replacement for ISL3686, ISL3686A

**Applications**

- PC card wireless LAN adapters
- High data rate wireless LAN systems targeting IEEE802.11b/g standards
- Spread spectrum WLAN RF modems
- TDMA or CSMA packet protocol radios
- PCI wireless LAN cards
- ISA, ISA PnP WLAN cards
- PCN/wireless PBX/wireless local loop

**Ordering Information**

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. DWG. #
ISL3686BIR	-40 to 85	56 Ld QFN	L56.8x8
ISL3686BIR-TK	Tape and Reel		