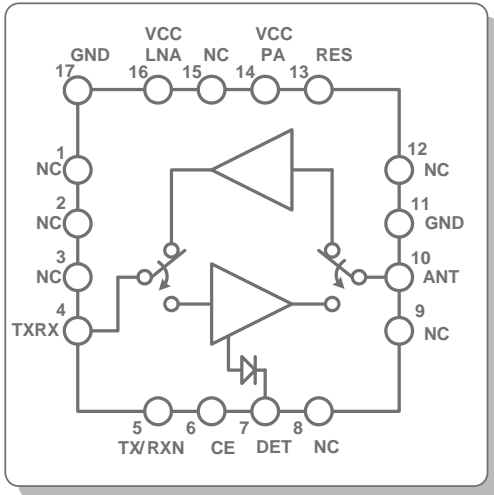


2.4GHZ TRANSMIT/RECEIVE WLAN RFeIC



Description

The RFX2408 is a fully integrated, single-chip, single-die RFeIC (RF Front-end Integrated Circuit) which incorporates all the RF functionality needed for today's wireless communications. The RFX2408 architecture integrates the PA, LNA, Transmit and Receive switching circuitry, the associated matching network, and a harmonic filter all in a BiCMOS single-chip device. This RFeIC is designed for use in 802.11b/g/n applications operating at 2.4GHz.

Combining superior performance, high sensitivity and efficiency, low noise, small form factor, and low cost, the RFX2408 is the ideal solution for single antenna applications, and the ideal building block for MIMO applications. RFX2408 requires minimal external components including the external power supply bypass and the desired filters for system performance. The PA power detect circuit is also integrated.

Applications

- ▶ 802.11b/g/n Access Point
- ▶ 802.11b/g/n NIC PC Card
- ▶ 802.11b/g/n Multimedia Applications
- ▶ 802.11b/g/n Mobile Platforms
- ▶ Active Antenna WLAN Systems
- ▶ Other 2.4GHz Transceivers

Parameters	Value	Conditions
TX		
Small-Signal Gain	26dB	In-band, Typical, TX Enabled
Output P1dB	+24dBm	In-band, Typical, TX Enabled (3.3 VDC)
Quiescent Current	45mA	TX Enabled, No RF Applied
Linear Output Power 1	+17dBm	802.11g/n 54Mbps OFDM EVM < 3.5%
Linear Output Power 2	+20dBm	802.11b 1Mbps CCK Mask Compliance
Linear Output 1 Current	110mA	+17dBm at ANT
2 nd / 3 rd Harmonic	-40 / -45dBc	+20dBm Output Power
Noise Figure	4dB	All Conditions, TX Enabled
RX		
Small-Signal Gain	15dB	In-band, Typical, RX Enabled
Noise Figure	2.7 dB	In-band, Typical, RX Enabled
Input P1dB	0dBm	In-band
Quiescent Current	8mA	RX Enabled
CHIP		
Operating Frequency	2.4-2.5GHz	TX or RX Enabled
Supply VCC	2.7 – 3.6 VDC	4.8V Max
Shut-down Current	5uA	Standby
Input Output Matching Return Loss	-14dB	Typical, In Band
RF Port Impedance	50-Ohm	Single-ended
Control Signals	High Enable	CMOS Logic, <0.3V, Low >1.2V High
Package	16-QFN	3.0mm x 3.0mm x 0.5mm

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This product brief is a general list of parameters to provide information on the capabilities of this device and is subject to change without notice.