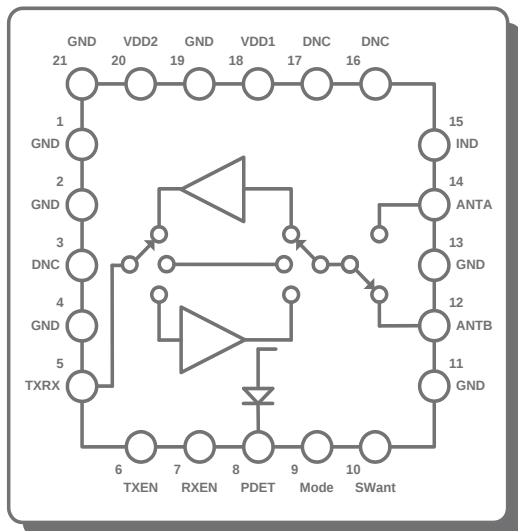


2.4GHZ TRANSMIT / RECEIVE ZIGBEE RFEIC WITH DIVERSITY SWITCH



Description

The RFX2411 is a fully integrated, single-chip, single-die RFEIC (RF Front-end Integrated Circuit) which incorporates all the RF functionality needed for wireless ZigBee/smart energy applications. The RFX2411 architecture integrates the PA, LNA, Transmit and Receive switching circuitry, the associated matching network, a harmonic filter and a diversity switch all in a CMOS single-chip device. It also includes a bypass mode to provide maximal level of flexibility for system implementations.

This RFEIC is designed for use in 2.4GHz ISM band and supports the 802.15.4 and ZigBee standard. Typical high power applications include home and industrial automation, smart power, and RF4CE among others. Combining superior performance, high sensitivity and efficiency, low noise, small form factor, and low cost, RFX2411 is the perfect solution for applications requiring extended range and bandwidth. RFX2411 has simple and low-voltage CMOS control logic and requires minimal external components for system implementation. The PA power detect circuit is also integrated.

Applications

- ▶ Mobile and Battery ZigBee Systems
- ▶ RF4CE Remote Control
- ▶ ZigBee Extended Range Devices
- ▶ ZigBee Smart Power
- ▶ Home and Industrial Automation
- ▶ Custom 2.4GHz Radio Systems

Parameters	Typical	Conditions
TX		
Small-Signal Gain	24dB	In-band
Output P1dB	+19dBm	In-band
Saturated Output Power	+21dBm	
Linear Output Current	115mA	Pout=+20dBm at ANT
2 nd and 3 rd Harmonic	-35dBc	Pout=+20dBm at ANT
RX		
Small-Signal Gain	12dB	Low NF Mode
Noise Figure	2.5dB	Low NF Mode
Input P1dB	-8dBm	Low NF Mode
Quiescent Current	8mA	
CHIP		
Operating Frequency	2.4-2.5GHz	
Supply VCC	2.4-3.6V	
Shut-down Current	1uA	
Input/Output Return Loss	-10dB/-10dB	RF Ports, In Band
RF Port Impedance	50-Ohm	Single-ended
Control Signals	High Enable	CMOS Logic: Low < 0.3V, High > 1.2V
Package	20-QFN	3mmx3mmx0.55mm

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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.