8TR1111 Product Brief

OctoTech Infinitely Innovative

Sub-GHz ISM Band RF Front-End IC 868 MHz / 915MHz

Features

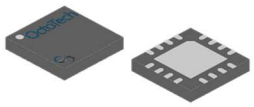
- Integrated High Power PA and Antenna Switch
- +24dBm Antenna Power P_{ANT} at 3.3V
- 1.8V to 3.6V Operation
- 1.5dB Rx Bypass Insertion Loss
- For 863-870MHz, and 902-928MHz ISM Bands
- Temperature Range: -40°C to +125°C
- 3.0 x 3.0 x 0.45mm 16-pin QFN package
- Die in Wafer Form Available

Applications

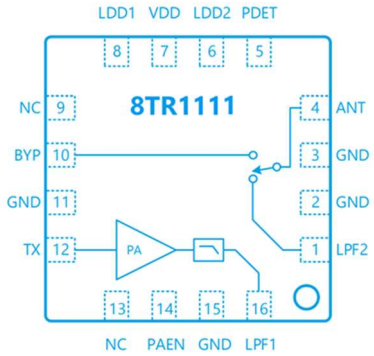
- Sigfox, LoRaWAN™, WPAN, LPWAN
- IoT (Internet of Things) Nodes, Gateways
- Z-wave®, Weightless™, Wireless M2M
- Smart: Home, City, Lighting, Energy
- Industrial and Building Automation
- Proprietary ISM-Band Wireless Systems
- Range Extenders

Description

The 8TR1111 is an integrated RF front-end IC designed for sub-GHz wireless systems including: Sigfox, LoRaWAN™, WPAN, LPWAN, Z-wave®, Weightless™ and other proprietary ISM band wireless systems.



Functional Block Diag



Key Specifications

Tx		BYPASS PATH		CHIP	
Parameter	Typical	Parameter	Typical	Parameter	Typical
Small-Signal Gain	35dB	RX Insertion Loss	1.5dB	Frequency Range	863-928MHz
Saturated Output Power @ 3.3V	+25 dBm	P_{-1dB}	20dBm	Supply Voltage	1.8 - 3.6V
Output Current @ 3.3V, +24dBm	260mA	Quiescent Current	70mA	Control Voltage (Logic High)	1.2V - Vdd
3rd, 4th, 5th Harmonics @ +24.5dBm at ANT	<-50dBm/MHz*			Shutdown Current	1 uA
Tx-Rx Isolation (Tx Mode)	22dB			Temperature Range	-40 to 125°C

*On EVB with the harmonic filter

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