# 8TR1110 Preliminary Product Brief

868 MHz / 915MHz ISM Band RF Front-End IC  Product Brief

## Features

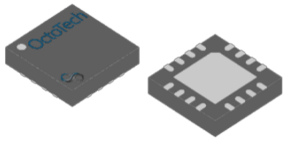
- Integrated High Power PA and Antenna Switch
- +27dBm Psat at 3.3V
- 1.8V to 3.6V Operation
- 1.2dB Rx Bypass Insertion Loss
- For 863-870MHz, and 902-928MHz ISM Bands
- Combined Tx/Rx Port Interface
- Temperature Range: -40°C to +125°C
- 3.0 x 3.0 x 0.55mm 16-pin QFN package
- Die in Wafer Form Available

## Applications

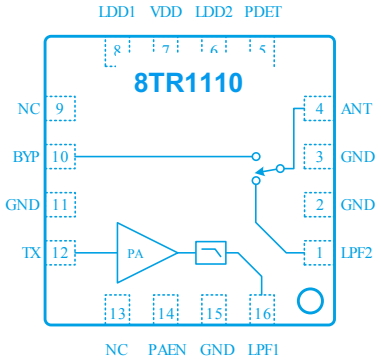
- IoT (Internet of Things) Nodes, Gateways
- LoRaWAN™, Sigfox, WPAN, LPWAN
- Z-wave®, Weightless™, Wireless M2M
- Smart: Home, City, Lighting, Energy
- Industrial and Building Automation
- Proprietary ISM-Band Wireless Systems

## Description

The 8TR1110 is an integrated RF front-end IC designed for sub-GHz wireless systems including: LoRaWAN™, Sigfox, WPAN, LPWAN, Z-wave®, Weightless™ and other proprietary ISM band wireless systems.



## Functional Block Diagram




## Key Specifications

| Tx | | BYPASS PATH | | CHIP | |
|---|---|---|---|---|---|
| Parameter | Typical | Parameter | Typical | Parameter | Typical |
| Small-Signal Gain | 37dB | Rx Insertion Loss | 1.2dB | Frequency Range | 863-928MHz |
| Saturated Output Power @ 3.3V | +27dBm | P0.1dB | 28dBm | Supply Voltage | 1.8 - 3.6V |
| Output Current @ 3.3V, +27dBm | 400mA (35%PAE) | Quiescent Current | 0.1uA | Control Voltage (Logic High) | 1.2V - Vdd |
| 2nd/3rd Harmonics @ +27dBm at ANT | 0dBm/MHz | | | Shutdown Current | 0.1uA |
| Tx-Rx Isolation (Tx Mode) | 22dB | | | Temperature Range | -40 to 125°C |

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