



## 2.4GHz Single-Port Active Integrated Antenna with LNA and Switch

### Description

BHWR250L is a complete RF Front-End solution from BHW's RF Active integrated Antenna (RFAiA™) product family. It integrates a low noise amplifier with ultra-low 1.8dB total noise figure and 13dB gain, a switch path for single-port interface with the transceiver SoC, and a compact antenna with high efficiency and very stable VSWR under various PCB size and housing conditions, all into a compact 16x12mm design. BHWR250L can be easily surface-mounted to the main product board without requiring any additional impedance matching, resulting in significantly simplified RF design and shorter product development cycle.

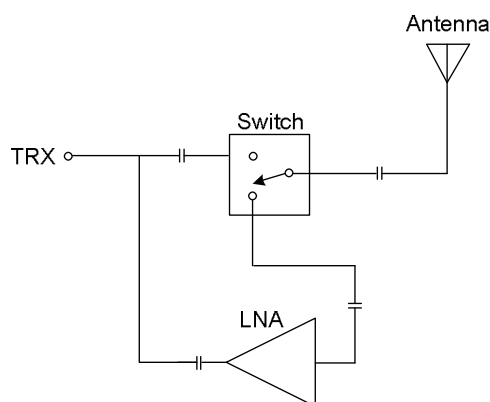
### Key Features

- 2.4-2.5GHz Operation Frequency Range
- Operating Voltage: 1.2~4.2V
- Rx Noise Figure: 1.8dB; Gain: 13dB
- LNA Current: 13mA at Vdd=3.3V (Adjustable)
- Tx Insertion Loss: 1.3dB
- Robust ESD Protection
- Minimal and Relaxed RF Design for Main PCB
- Compact 16x12mm footprint for SMT

### Key Applications

- Bluetooth/BLE System
- IEEE 802.11 WLAN System
- Wi-Fi/BT Module
- Wireless Audio/Video
- Remote Control
- Generic 2.4GHz TDD Radio Designs

### Functional Block and Product Information



16x12x0.6mm PCB (with BHW M253)



**BHWR250L**

**Product Brief**

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*For further information, please email to [support@bhwtechnologies.com](mailto:support@bhwtechnologies.com), or contact your local BHW Sales Rep or Distributor. We will send you the complete product datasheet as well as EVB related information.*