



S-POWER ELECTRONICS LTD.

...iSmarter wireless connectivity

BG313 *ZigBee* Module

The BG313 is a true system-on-chip (SoC) solution for IEEE 802.15.4, Zigbee and RF4CE applications. It enables robust network nodes to be built with very low total bill-of-material costs. The BG313 has various operating modes, making it highly suited for systems where ultralow power consumption is required. Short transition times between operating modes further ensure low energy consumption.

Combined with the industry-leading and golden-unit-status ZigBee protocol stack (Z-Stack™) from Texas Instruments, the BG313 provides a robust and complete ZigBee solution.

APPLICATIONS

- ◆ 2.4-GHz IEEE 802.15.4 Systems
- ◆ RF4CE Remote Control Systems
- ◆ Home/Building Automation
- ◆ Lighting Systems
- ◆ Industrial Control and Monitoring
- ◆ Low-Power Wireless Sensor Networks
- ◆ Health Care

ZigBee





Module Key Features

RF	<ul style="list-style-type: none"> - 2.4GHz IEEE 802.15.4 Compliant RF Transceiver - Excellent Receiver Sensitivity and Robustness to Interference - Programmable Output Power Up to 4.5dBm - Suitable for Systems Targeting Compliance With Worldwide Radio Frequency Regulations: ETSI EN 300 328 and EN 300 440 Class 2 (Europe), FCC CFR47 Part 15 (US), and ARIB STD-T66 (Japan)
Low Power	<ul style="list-style-type: none"> - Active Mode TX at 1dBm (CPU Idle): 29mA / RX (CPU Idle): 24 mA - Power Mode 1 (4-μs Wake-Up): 0.2 mA - Power Mode 2 (Sleep Timer Running): 1 μA - Power Mode 3 (External Interrupts): 0.4 μA - Wide Supply Voltage Range (2 V–3.6 V)
Microcontroller	<ul style="list-style-type: none"> - High-Performance and Low-Power 8051 Microcontroller Core with Code Prefetch - 256 KB In-System-Programmable Flash - 8 KB RAM With Retention in All Power Modes
Peripherals	<ul style="list-style-type: none"> - IEEE 802.15.4 MAC Timer, General-Purpose Timers (One 16-Bit, Two 8-Bit) - IR Generation Circuitry - Accurate Digital RSSI / LQI Support - 12-Bit ADC with Eight Channels and Configurable Resolution - AES Security Coprocessor - Two Powerful USARTs With Support for Several Serial Protocols - 21 General-Purpose I/O Pins (19 x 4 mA, 2 x 20 mA) - Watchdog Timer
Module Size	24 x 17 x 1.8mm

