

**Wireless Power Receiver****Description**

The SM5922 is a wireless power receiver that is BPP WPC1.2.4 compliant supporting up to 5W. The SM5922 receives an AC power signal from a wireless transmitter and converts it into a rectified output voltage, which can be used to power devices or supply the charger input in mobile applications. The receiver (Rx) integrates a high efficiency synchronous full bridge rectifier and control circuits used to modulate the load to send message packets to the transmitter (Tx) to optimize power delivery for the magnetic induction. The integrated, low Rds-ON synchronous rectifier and ultra-low dropout linear regulator offer high efficiency making the product ideally suited for battery-operated applications.

The SM5922 includes the MCU with 32KB EEPROM which are offering a high level of programmability. In addition, the device includes over-temperature protection, voltage protection, programmable over current protection and watchdog timer.

The SM5922 is available in 2.07mm x 3.27mm, 40-Bump WLCSP Package.

**Applications**

- Wearable Devices
- Smartphones
- Portable Devices

**Ordering Information**

Part	Temp. Range	Pb-Free	Package
SM5922	-40°C to +85°C	Yes	40-Bump WLCSP 0.4mm pitch

**Features**

- Delivers Power up to 5W
- Wireless Power Receiver with WPC1.2.4 Compliant
- ASK modulation and FSK demodulation
- Adaptive VOUT control for very high system efficiency
- Low Power Ping Detection
- Dedicated Remote Temperature Sensing for Safety
- Embedded Full Synchronous Rectifier with Low Rds-ON
- Embedded MCU with 32KB EEPROM
- High Performance LDO with Programmable Voltage
- Protections for VRECT Over Voltage, Output Over Current, Overtemperature and Watchdog Timer
- Support Full-speed I<sup>2</sup>C Interface

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