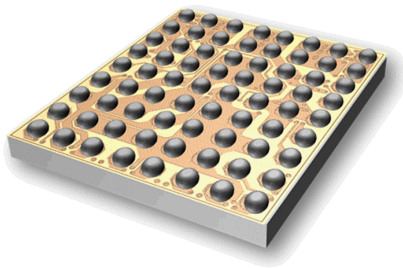


Qi-compliant inductive wireless power receiver for 5W applications



Flip Chip (3.29 x 3.70 mm)

Features

- Up to 5 W output power
- Qi 1.2.4 inductive wireless standard communication protocol compliant
- Integrated 27 V synchronous rectifier with 98% (typ.) efficiency
- Low drop-out linear regulator with output current and input voltage control loops
- 3.6 V to 20 V programmable output voltage with 25 mV resolution
- Up to 80% overall system efficiency
- 32-bit, 64 MHz ARM Cortex microcontroller core
- OTP memory for configuration data
- 8-channels, 10-bit A/D Converter
- 6 configurable GPIOs
- Accurate voltage/current measurement for Foreign Object Detection (FOD)
- Output Over-Voltage clamping protection
- 400 kHz I²C interface
- On-chip thermal management and protections (Over-voltage, Over-current)
- Enhanced power dissipation capability Chip-Scale Package (CSP)

Application

- Smartphones and PDAs
- Power banks
- GPS navigators
- Medical and healthcare equipment
- Wearable devices

Description

The **STWLC68** is an integrated Wireless Power Receiver suitable for portable applications and capable of managing up to 5 W of output power. The chip has been designed to support Qi 1.2.4 specifications for inductive communication protocol and Base Power Profile (BPP).

The STWLC68 shows excellent efficiency performance thanks to the integrated low-loss synchronous rectifier and the low drop-out linear regulator: both elements are dynamically managed by the digital core to minimize the overall power dissipation over a wide range of output load conditions.

Through the I²C interface the user can access and modify different configuration parameters, tailoring the operation of the device to the needs of custom applications. The configuration parameters can be saved in the embedded OTP memory and automatically retrieved at power-up, allowing the STWLC68 to operate as stand-alone device.

The STWLC68 is housed in a Chip-Scale Package to fit real-estate solutions in wearable devices.

Product status link	
STWLC68	
Product summary	
Order code	STWLC68JRH
Package	Flip Chip (3.29 x 3.70 mm)
Packing	Tape and reel

Revision history

Table 1. Document revision history

Date	Version	Changes
16-Sep-2019	1	Initial release
22-Oct-2019	2	Updated features

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