STWLC38JRM

Data brief

15W Wireless Power Receiver



Product status link
STWLC38JRM

Product summary	
Order code	STWLC38JRM
Package	WLCSP40
Packing	Tape and reel

Features

- Up to 15 W output power
- High efficiency synchronous rectifier
- Low drop-out linear regulator
- 4 V to 12 V programmable output voltage
- 32-bit, 64 MHz Arm® Cortex® M0+ core
- Configurable GPIOs
- I^2C target interface for host controller
- Multilevel ASK modulator, FSK demodulator
- Overcurrent and thermal protections
- Overvoltage clamping protection
- Accurate current sense system for Foreign Object Detection (FOD)
- Package: WLCSP40 5 x 8 Ball (2.12 mm x 3.32 mm x 0.56 mm) pitch 0.4 mm

Application

- Smartwatches, fitness trackers, True Wireless Stereo (TWS)
- Medical and healthcare equipment
- Crypto wallets

Description

The STWLC38JRM is a highly integrated wireless power receiver solution suitable for applications up to 15 W.

The STWLC38JRM 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.

STWLC38JRM features embedded RRAM (Resistive RAM) nonvolatile memory to enable I²C interface customization and support of proprietary communication and charging protocols.

Additional firmware patching also improves the application flexibility of STWLC38JRM.

The STWLC38JRM is housed in a chip scale package to fit real-estate sensitive applications like wearable devices.

Revision history

Table 1. **Document revision history**

Date	Version	Changes
11-June-2025	1	Initial release

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