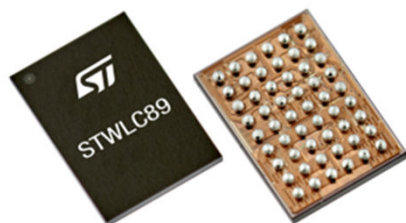


30W Wireless Power Receiver



Product status link

STWLC89

Product summary

Order code	STWLC89JRO
Package	WLCSP54
Packing	Tape and reel

Features

- Up to 30 W output power in Rx mode
- Reverse charging TRx mode with up to 9 W Tx output power capability
- High efficiency synchronous rectifier
- Low drop-out linear regulator
- 3.5 V to 21 V programmable output voltage
- 32 bit, 64 MHz Arm® Cortex® M0+ core
- Configurable GPIOs
- I²C 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: WLCSP54 6 x 9 Ball (2.8 mm x 4.0 mm x 0.49 mm) pitch 0.4 mm

Applications

- Smartphones, tablets
- Portable POS systems, RFID Scanner
- Magnetically Aligned Coils

Description

The STWLC89 is a highly integrated wireless power receiver suitable for applications delivering an output power up to 30 W.

The STWLC89 shows excellent efficiency performance thanks to the integrated low-loss synchronous rectifier, regulation 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 the configuration parameters, tailoring the operation of the device to the needs of customized applications.

The final configuration parameters are stored in the embedded nonvolatile memory (FTP) and automatically retrieved at power-up, allowing the STWLC89 to operate as a standalone device.

Reverse Charging Tx Function for Smartphone Applications only.

The device is housed in a chip scale package to fit real-estate applications with reduced BOM count.

Revision history

Table 1. Document revision history

Date	Version	Changes
27-May-2025	1	Initial release.

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