

Wireless power receiver evaluation board for Qi BPP/EPP applications



Features

- Supports up to 15 W receiver design
- Qi 1.3 compliant
- Integrated
 - High efficiency synchronous rectifier
 - Low voltage drop regulator with output current limit and input voltage control
- Output 5 V baseline power profile, 9 V extended power profile
- Adaptive rectifier configuration (ARC) mode for enhanced spatial freedom
- Accurate voltage/current measurement for foreign object detection (FOD)
- On-chip thermal management and protections

Description

The STEVAL-WLC38RX is an evaluation board based on the STWLC38 and
designed for wireless power receiver application.

The evaluation board allows its user to quickly start their 5W Qi-BPP and 15W Qi-EPP compatible wireless charging receiver projects.

Through the I²C interface the user can access and modify different configuration parameters, and hence tailor the operation of the device to the needs of custom applications.

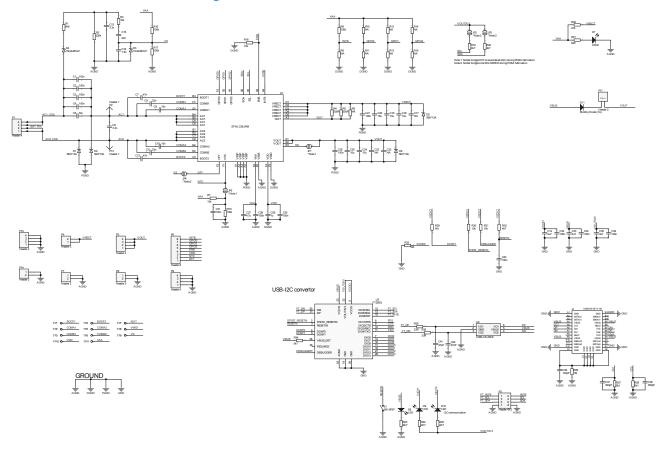
Using an on-board USB-to-l²C bridge, the user can monitor and control the STWLC38 using the STSW-WPSTUDIO graphical user interface (GUI).

Product summary		
Wireless power receiver evaluation board for Qi BPP/EPP applications	STEVAL- WLC38RX	
Qi-compliant inductive wireless charger power receiver for up to 15W applications	STWLC38JRM	
Firmware for wireless power receiver evaluation board	STSW- WLC38FWEPP	
Graphical user interface for wireless power receiver and transmitter evaluation boards	STSW- WPSTUDIO	
Applications	Wireless chargers	

Schematic diagrams



Figure 1. STEVAL-WLC38RX circuit schematic





2 Board versions

Table 1. STEVAL-WLC38RX versions

Finished good	Finished good Schematic diagrams Bill of materials	
STEVAL\$WLC38RXA (1)	STEVAL\$WLC38RXA schematic diagrams	STEVAL\$WLC38RXA bill of materials

^{1.} This code identifies the STEVAL-WLC38RX evaluation board first version.

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Revision history

Table 2. Document revision history

Date	Revision	Changes
20-Jul-2023	1	Initial release.

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