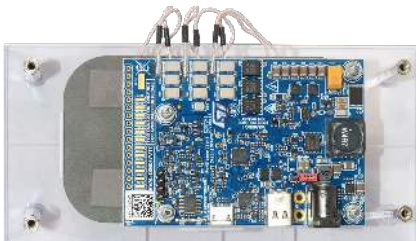


Qi certified 3-coil 15 W wireless charger TX evaluation kit based on STWBC-MC



Features

- **STWBC-MC** digital controller
- MP-A15 3-coil array
- 15 W potential power
- Flexible input voltage: 5 to 20 V from USB-C or DC jack
- 5 W mode when connected to 5 V USB input or DC jack
- Fixed frequency operation
- WPC Qi1.2.4 standard certified
- Robust demodulation algorithm, with triple path (V, I, f)
- Foreign object detection (FOD)
- Active presence detection
- UART protocol to control and monitor the system
- Complete reference design (evaluation board, schematics, PCB layout, firmware and tools)
- 2-layer PCB
- Low standby power consumption
- Flash memory based
- CE certified
- RoHS compliant
- WEEE compliant

Product summary

| | |
|---|--------------------------------------|
| Qi certified 3-coil 15 W wireless charger TX evaluation kit based on STWBC-MC | STEVAL- ISB047V1 |
| USB-UART dongle | STEVAL- WBCDNGV1 |
| Digital controller for wireless battery chargers transmitters for Qi multicoil applications | STWBC-MC |
| Firmware for STEVAL- ISB047V1 | STSW- ISB047FW |
| Stand-alone USB PD controller | STUSB4500 |

Description

The [STEVAL-ISB047V1](#) wireless battery charger TX evaluation kit consists of the STEVAL-ISB047V1T evaluation board and STEVAL-WBCDNGV1 USB-UART dongle. The kit is designed for charging devices such as smartphones or tablets where high power levels are required.

The evaluation board supports wireless battery charging of Qi-compliant devices up to 15 W. It also supports proprietary fast charging modes up to 10 W.

The STEVAL-ISB047V1 transmitter is based on the [STWBC-MC](#) and features a cost-effective half bridge topology, offering external interface via UART.

The STEVAL-ISB047V1 evaluation kit is a full solution, complete with boards, firmware, a GUI for debugging, schematics, layout files and bill of materials.

Tools for STEVAL-ISB047V1 are available on www.st.com, and allow users to access runtime information such as power delivered, regulation error and protocol status. Parameters can also be adjusted with these tools.

1 Evaluation board and block diagram

Figure 1. STEVAL-ISB047V1T evaluation board

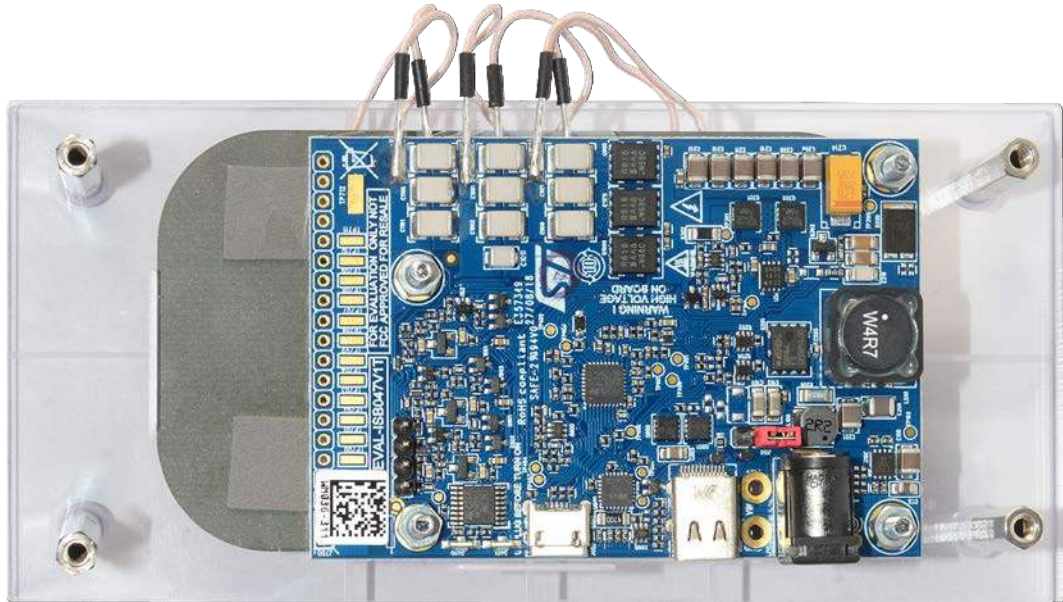
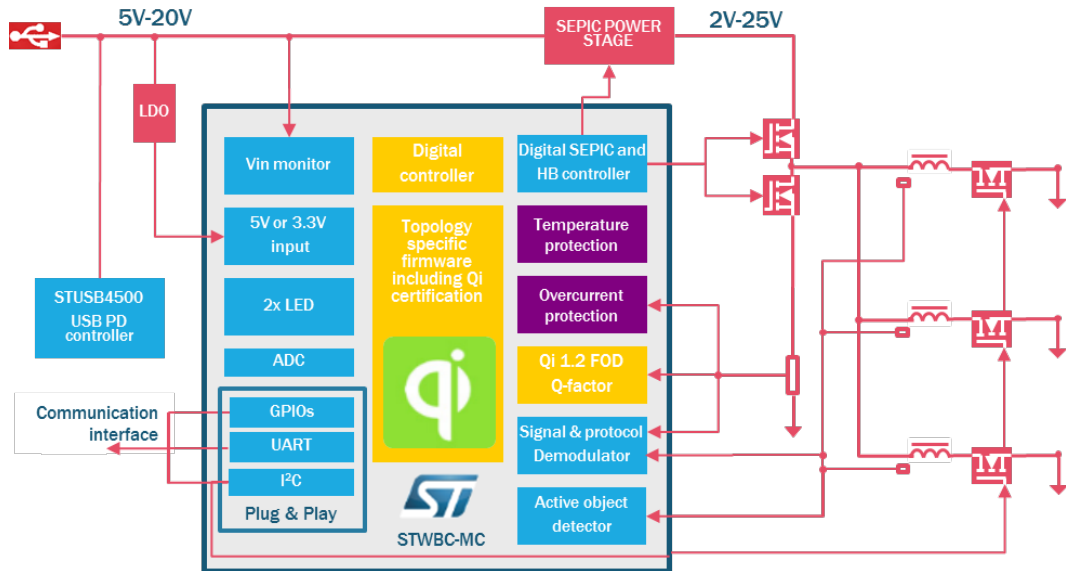


Figure 2. STEVAL-ISB047V1T block diagram



Revision history

Table 1. Document revision history

| Date | Version | Changes |
|-------------|---------|--|
| 03-Aug-2018 | 1 | Initial release. |
| 06-Feb-2019 | 2 | Updated title and cover page features. |

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