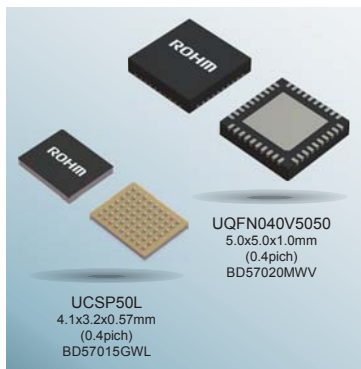


Wireless Power Transmission Chipset Compatible with WPC's Qi Standard (Medium Power Specifications)

Receiving/Terminal Side : BD57015GWL, Transmission/Charging Side : BD57020MWV



Achieves quality comparable to wired charging for smartphones and other portables

Product Outline

Wireless power transmission technology that eliminates the need for power cords during charging is expected to see widespread adoption with the emergence of wireless protocols such as the Qi standard established by WPC for smartphones and other portables. Until now, the Qi standard was limited to the low power (<5W) range, but recently specifications were established for medium power transmission (<15W) - comparable to many wired charging systems.

The BD57015GWL and BD57020MWV are receiver/terminal (10W) and transmission/charging (15W) ICs compatible with WPC's Qi standard for medium power transmission. In addition, the BD57015GWL is also compliant with the PMA wireless power transmission standard (5W) developed for the North American market, making it the first dual-mode receiver/terminal IC in the industry.

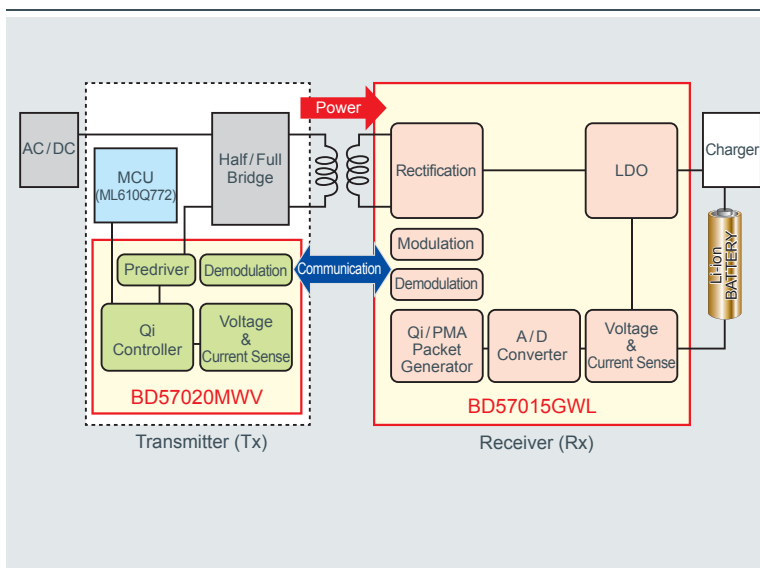
*ROHM April 2015 survey

Compatible with the latest Qi standard for medium power transmission

Features

- Complies with WPC's Qi Medium Power (<15W) standard
- Compatible with Qi's Low Power (<5W) protocol as well
- Foreign Object Detection (FOD) function built in
- Multiple protection functions included
 - Overvoltage protection (OVP)
 - Overcurrent protection (OCP)
 - Thermal shutdown (TSD)
 - Undervoltage lock out (UVLO)
- Transmission/Charger Side : BD57020MWV (15W transmission power)
- Qi-compliant transmitter configured using LAPIS Semiconductor's low power (U8) MCU
- Receiver/Terminal Side : BD57015GWL (10W receiving power)
- Variable LDO output voltage : 5-10V
- Automatic Qi/PMA standard detection

Wireless charging system block diagram



Qi Standard

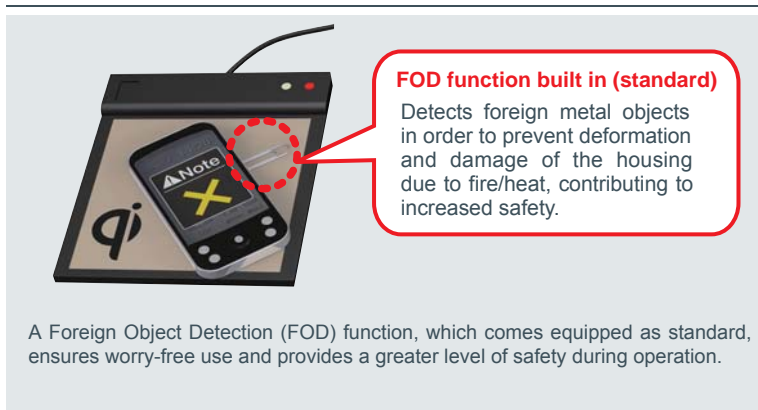
Qi is a wireless power transmission standard established by WPC (Wireless Power Consortium), the largest international standardization organization for wireless charging.



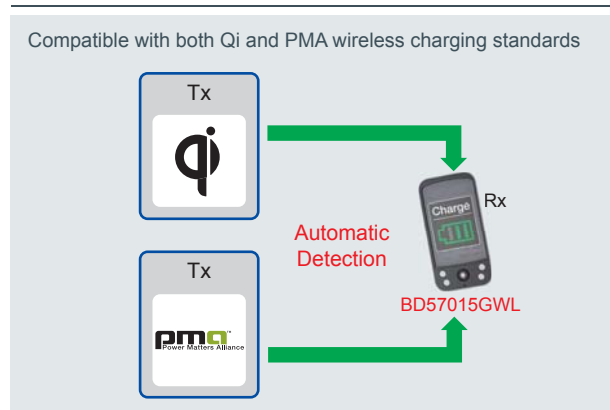
PMA (Power Matters Alliance) Standard

A wireless charging standard developed for the North American market.

Equipped with foreign object detection function



Complies with both Qi and PMA standard receiving protocols



The content specified herein is for the purpose of introducing ROHM's products (hereinafter "Products"). If you wish to use any such Product, please be sure to refer to the specifications, which can be obtained from ROHM upon request. Great care was taken in ensuring the accuracy of the information specified in this document. However, should you incur any damage arising from any inaccuracy or misprint of such information, ROHM shall bear no responsibility for such damage. The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM and other parties. ROHM shall bear no responsibility whatsoever for any dispute arising from the use of such technical information. If you intend to export or ship overseas any Product or technology specified herein that may be controlled under the Foreign Exchange and the Foreign Trade Law, you will be required to obtain a license or permit under the Law.

The content specified in this document is correct as of 13th April, 2015.