



Rohm Wireless Power Solution User's Manual



November, 2016
Wireless Power Transfer Group

BD57020MWV-EVK-002 (15W-Qi Transmitter) BD57015GWL-EVK-001 (10W-Qi Receiver)



■ BD57020MWV-EVK-002



15W-Qi Transmitter(Tx)

■ Key Specifications

- Coil design : MP-A7
- Input Voltage :19V
- WPC Qi compliant (Ver. 1.2.2)
Extended Power Profile
- Q-FOD/Calibration-FOD adopted

■ BD57015GWL-EVK-001



10W-Qi Receiver(Rx)

■ Key Specifications

- Vout :10V (on the MP-Tx)
:5V (on the LP-Tx)
- Imax :1A
- WPC Qi compliant (Ver. 1.2.2)
Extended Power Profile

Evaluation environment

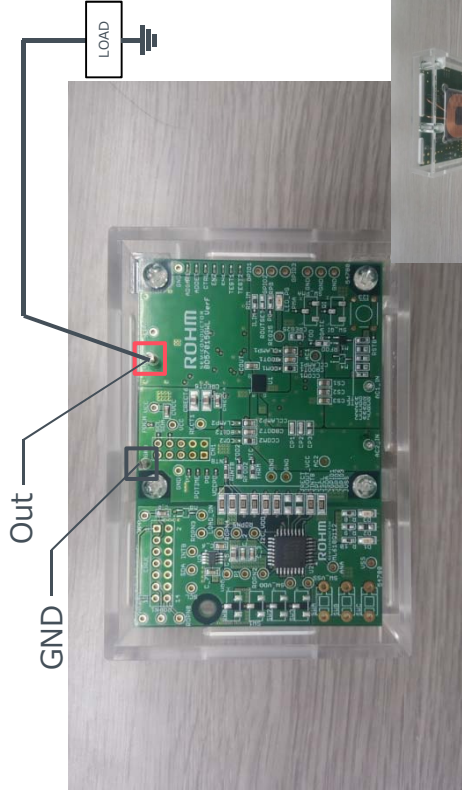


■ BD57020MWV-EVK-002

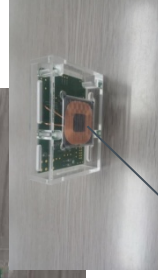


15W-Qi Transmitter(Tx)

■ BD57015GWL-EVK-001



10W-Qi Receiver(Rx)

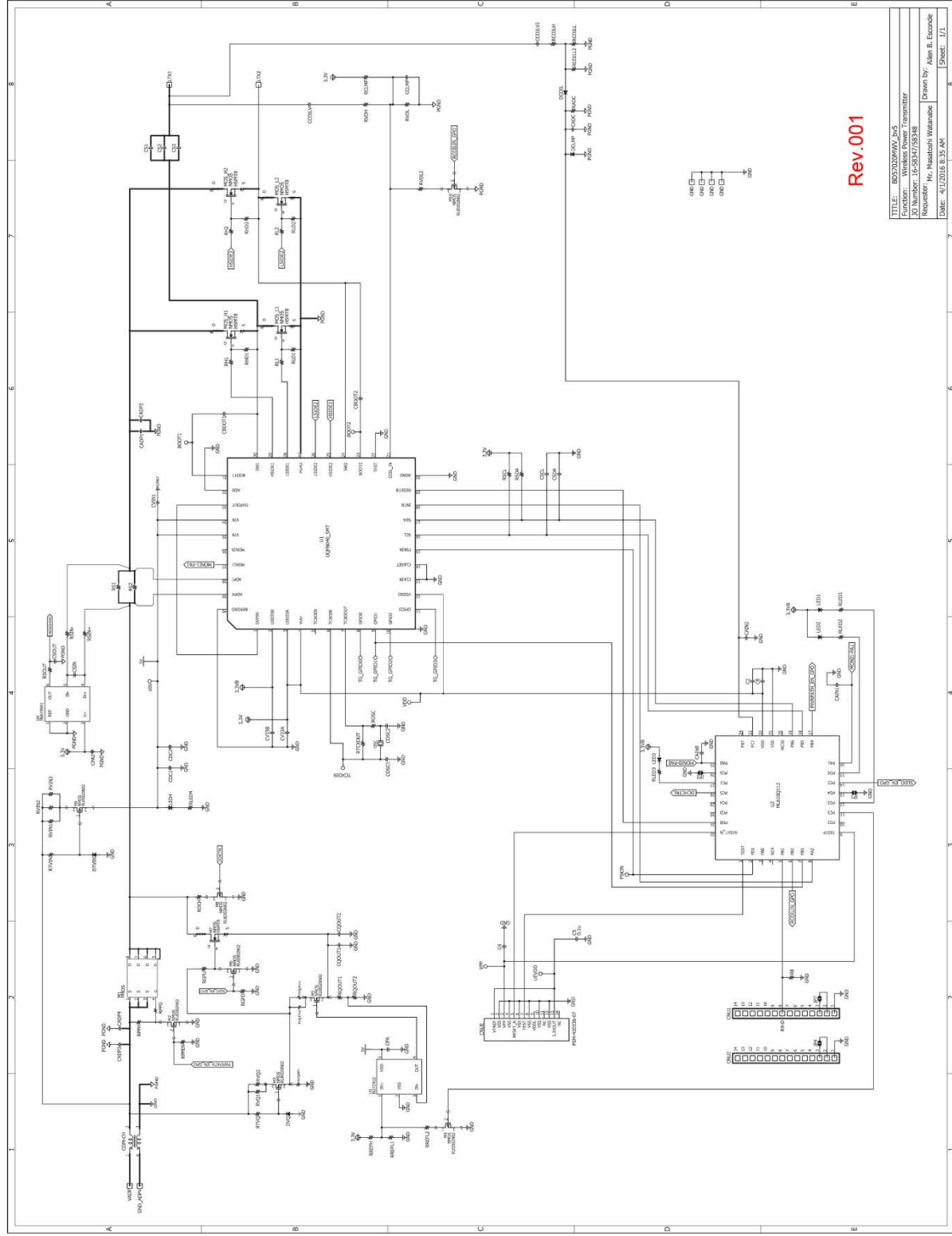


Rx Coil



BD57020MWV-EVK-002

Transmitter schematic

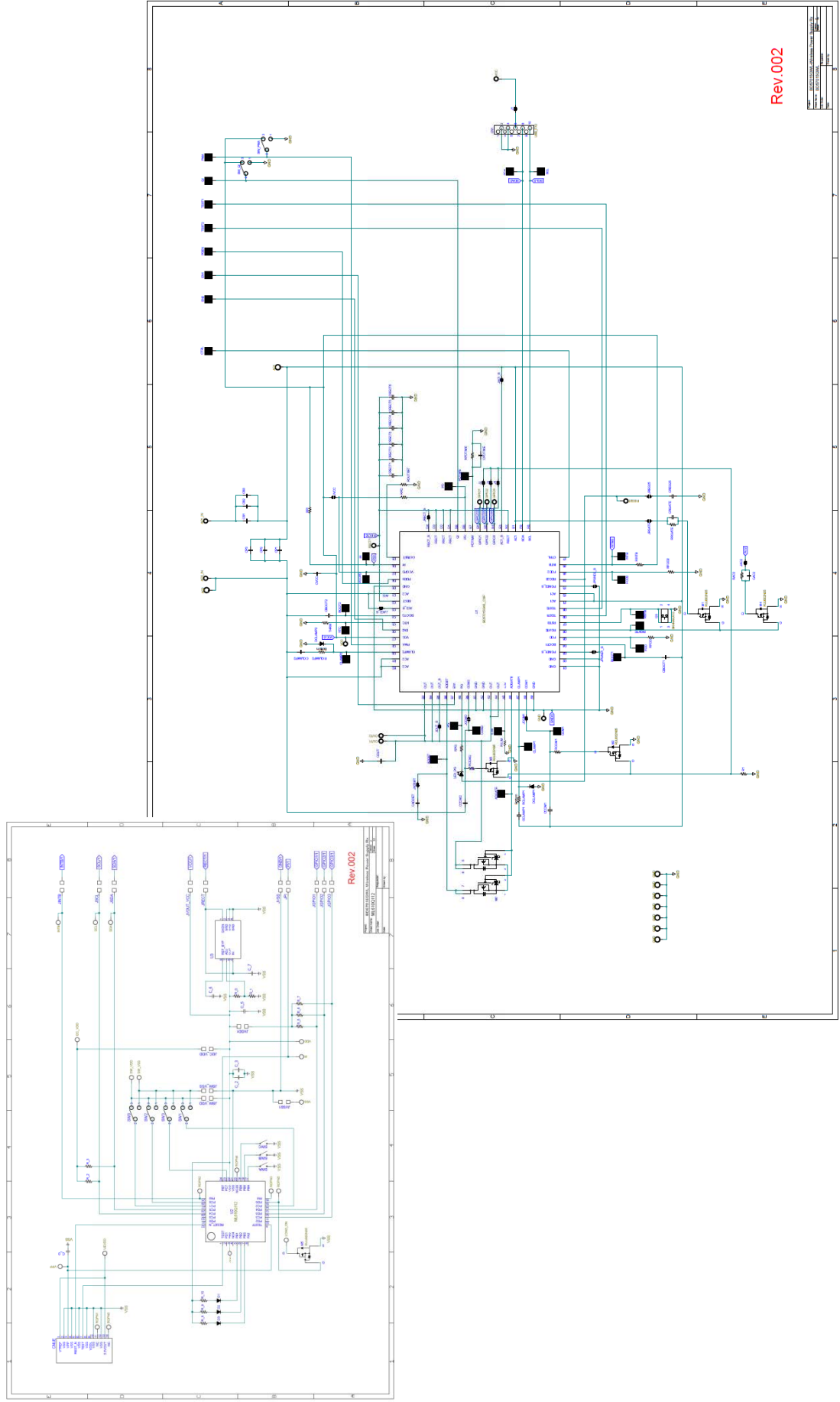


Rev.001

TITLE	BD57020MWV-EVK-002
Function	Wireless Power Transmitter
JD Number	15-8547/5348
Requester	Mr. Masatoshi Watanabe
Date	4/1/2016 8:35 AM
Sheet	1/1

BD57015GWL-EVK-001

Receiver schematic



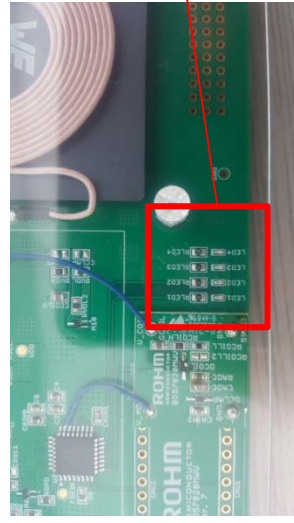
LED Indication



■ BD57020MWV-EVK-002

	LED1	LED2	LED3	LED4
Stand by Charge Complete	OFF	OFF	OFF	ON
Charging(LP)	ON	OFF	OFF	ON
Charging(MP)	ON	ON	OFF	ON
Transmitted power limit	ON	OFF (LP)	Blinking (1sec)	ON
		ON (MP)		
Error1 (FOD, EPT except for Charge Complete, Min Vin)	OFF	OFF	Blinking (0.2sec)	ON
Error2 (OCP)	ON	ON	ON	ON
Error3 (TSD)	OFF	OFF	ON	ON

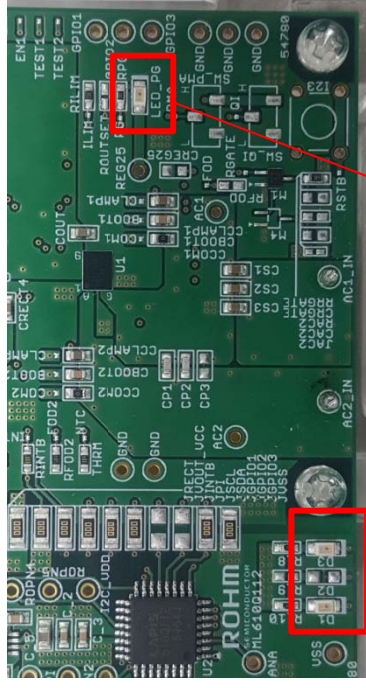
Transmitted power limit: During the excess of power limit, the status of the indicator is kept.
 Error1: The status of the indicator is kept until the Rx is removed.
 Error2: The status of the indicator is kept until the Tx is reset regardless of the status of Rx.
 Error3: The status of the indicator is kept until the TSD status is removed.



LED1-4

■ BD57015GWL-EVK-001

	D1	D2	D3	LED_PG
Stand-by	OFF	OFF	OFF	OFF
Low Power-mode	ON	OFF	OFF	ON
Medium Power-mode	ON	OFF	ON	ON



D1-3

LED_PG

Precautions



Precautions

We provide the customers with the evaluation board on the following terms and conditions.
By using the evaluation board, you shall be deemed to have agreed the following terms and conditions. If you do not agree with the following terms and conditions, please return us the evaluation board within 30 days after your receipt.

1. Restriction on purpose of use and method of use

- The purposes of the evaluation board are technical development, demonstration and evaluation only. The evaluation board is not a final finished product suitable for use by general consumers. Therefore, please do not use the whole or a part of the evaluation board as a final finished product.
- Only professionals who are familiar with the risk related to the handling of electromechanical components shall use the evaluation board only for the purpose of technical development, demonstration and evaluation.

2. Our responsibility

- If the evaluation board fails to correspond with the specification prescribed in our "Precautions", Operating Manual, Application Note, Data Sheet or other documents (collectively "Related Documents"), we will exchange such evaluation board if it is returned within 30 days after your receipt.
- We make no warranties with respect to the evaluation board, expressed or implied, including reliability assurance, merchantability or fitness for a particular purpose.

3. Disclaimer

- We shall not be responsible for any application support, your product design and/or software performance.
- We shall not be liable for any and all damage that may be incurred to you due to the use or non-usability of the evaluation board, or any error in the statement of the Related Documents.
- We shall not be liable for any claim, damage, loss, liability or obligation arising in connection with the use of the evaluation board not in accordance with the Related Documents.

4. Intellectual property right

- We make no warranties that the evaluation board does not infringe any third party patent right or any other right.
- We do not license you or allow you implement or exploit, expressed or implied, our intellectual property right or any other right with respect to the evaluation board and the information stated in the Related Documents.

5. Your responsibility

- Please understand from (1) to (3) of the below and give representation and consent:
 - (1) • that you have knowledge of laws and regulatory rules applicable to the evaluation, test or any other use of your products and the evaluation board;
 - (2) • that your products are safe, and that you are responsible for assurance of the your products' compliance with laws and regulatory rules;

- that you are responsible for the safety of act of yourself, your employees, affiliates, contractors and/or designers who use the evaluation board;
- that you properly isolate the interface between the evaluation board and a human body in order to minimize the risk of electric shock.

(3) • that as the evaluation board is not a final finished product, which may not conform with the safety standards (UL, CSA, VDE, CE, RoHS, WEE, etc.), you shall judge on your own responsibility whether the evaluation board comply with such standards and related certifications.

- that you take preventive measures to prevent any occurrence such as property damage, injury or death even in the event that the evaluation board does not function as prescribed in the Related Documents or as expected.

- Before you handle this evaluation board, please read the Related Documents, especially the "Precautions".

- If you use the evaluation board for use for any product that shall place top priority in safety such that any defect of the evaluation board may cause serious injury or death, please notify us of such intention, and if we request, please execute contracts for guarantee and indemnity separately.

- Please do not disassemble, alter, or change the evaluation board.

- Please do not resell the evaluation board.

- After completing evaluation, please return us the evaluation board, or destruct or dispose of the evaluation board on your responsibility.

End



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