



# DEVELOPMENT KIT

Wireless Power Transfer Extended Power Profile Order Code 760308MP2

## **Content and Usage**

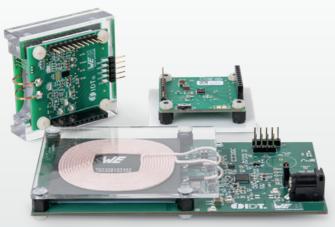
Renesas Electronics and Würth Elektronik eiSos together offer a wireless power development kit (order code 760308MP2) to demonstrate the advantages of wireless power and to give developers the opportunity to test and integrate a wireless power solution to their application.

Please note that this development kit is intended to be operated in a research and development environment under supervision of qualified technicians or engineers for test and measurement purposes. This development kit is not designed to fulfill requirements for CE compliance.

Transmitter Module



Receiver Module and LED Load Module



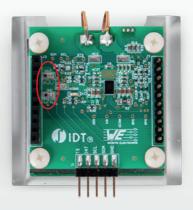
### **Stacked Receiver System**



The Receiver System consists of the Receiver and the LED Load Module. Different combinations are available for the users to match their application needs. Please refer to the user manual.



1. Remove top plane



2. Connect your device on those two pads Vout is 12  $V_{\mbox{\tiny DC}}.$  Connect your debug connector to J1 for programming





### **Power Supply**

Connect and power up the transmitter board by using the provided power adapter.



More detailed technical description for developers and the latest firmware version can be found on our website: **www.we-online.com/wirelesspower/15WKit** Please note that there will be no support for the firmware. It is a basic functionality software meant

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Manufacturer	Product Family	Part Number
Würth Elektronik eiSos	WE-WPCC Wireless Power Transmitter Coil	760308103102
Würth Elektronik eiSos	WE-WPCC Wireless Power Receiver Coil	760308102207
Renesas Electronics	Wireless Power Transmitter IC	P9242-RBNDGI8
Renesas Electronics	Wireless Power Receiver IC	P9221-R3AHGI8

### Key components from Würth Elektronik eiSos and Renesas Electronics

# **Additional Terms**

### Additional Terms, warnings, restrictions and disclaimers of the Integrated Device Technology and Würth Elektronik eiSos Wireless Power Development Kit (later defined as DEVELOPMENT KIT)

Renesas Electronics and Würth Elektronik eiSos (later defined as WE) provide the enclosed DEVELOPMENT KIT under the following conditions: The user has to bear all responsibility and liability for the proper and safe handling with regard to this DEVELOPMENT KIT. The user shall indemnify Renesas Electronics and WE from all claims arising from the handling or utilization of the DEVELOPMENT KIT. In the case this DEVELOPMENT KIT does not comply with the specifications indicated in the Manual, the DEVELOPMENT KIT may be returned within 30 days from the date of delivery for a full reimbursement of the purchase price.

THE FOREGOING LIMITED WARRANTY IS THE EXCLUSIVE WARRANTY MADE BY RENESAS ELECTRONICS AND WE TO THE USER AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. EXCEPT TO THE EXTENT OF THE INDEMNITY SET FORTH ABOVE, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

### Please read the Manual carefully prior to handling the DEVELOPMENT KIT. This Manual contains essential safety information regarding temperatures and voltages.

No license is granted under any patent right or other intellectual property rights of Renesas Electronics or WE covering or relating to any machine, process and procedure, or combination in which such the DEVELOPMENT KIT or services might be or are used. Our arrangement with the user is not exclusive as Renesas Electronics and WE are currently working with a large number of customers for DEVELOPMENT KITs. Renesas Electronics and WE bear no liability for applications assistance, customer product design, software performance, or infringement of patents or services described in the Manual.

### **Code of federal regulations**

As noted in the DEVELOPMENT KIT Manual, this DEVELOPMENT KIT and/or accompanying hardware may or may not be subject to and compliant with the Code of Federal Regulations, Title 47, Part 15.

For DEVELOPMENT KITs annotated to comply with the Code of Federal Regulations, Title 47, Part 15. Operation is subject to the following two conditions: (1) This DEVELOPMENT KIT may not cause harmful interference, and (2) this DEVELOPMENT KIT must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This DEVELOPMENT KIT as a Class A digital apparatus complies with Canadian ICES-003. Changes or modifications not expressly approved by the party responsible for compliance could void the users' authority to operate the equipment. For DEVELOPMENT KITs annotated as not subject to or compliant with the Code of Federal Regulations, Title 47, Part 15. This DEVELOPMENT KIT is intended for use for ENGINEERING DEVELOPMENT, DEMONSTRATION, OR EVALUATION PURPOSES ONLY and is not considered by Renesas Electronics and WE to be a finished end product fit for general consumer use. It generates, uses, and can radiate radio frequency energy and has not been tested for compliance with the limits of computing devices pursuant to the Code of Federal Regulations, Title 47, Part 15, which are designed to provide reasonable protection against radio frequency interference. Operation of the equipment may cause interference with radio communications, in which case the user at its own expense will be required to take whatever measures may be required to correct this interference.

For Feasibility Evaluation Only, in Laboratory/Development Environments. The DEVELOPMENT KIT is not a complete product. It is intended exclusively for preliminary feasibility evaluation in laboratory/development environments by technically qualified electronics experts. Those experts mandatory have to be familiar with the dangers and application risks in connection with handling electrical mechanical components, systems and subsystems. It should not be used as an end product or as a part of an end product.

# RENESAS



### Your Sole Responsibility and Risk. You acknowledge, represent and agree that:

- a) You have unique awareness of the Federal, State and local regulatory requirements (including but not limited to Food and Drug Administration regulations, if applicable) which affects your products and which refers to your use (and/or the use of your employees, affiliates, contractors or designees) of the DEVELOPMENT KIT for evaluation, testing and other purposes.
- b) You are unlimited and exclusive responsible for the safety of your DEVELOPMENT KIT and for the compliance with all relevant laws and other applicable regulatory requirements. Further you have to assure the safety of any activities to be conducted by you and/or your employees, affiliates, contractors or designees, using the DEVELOPMENT KIT. You are also responsible to ensure that any interfaces (electronic and/or mechanical) between the DEVELOPMENT KIT and any human body are designed with suitable isolation and means to safely limit the accessible leakage currents to minimize the risk of electrical shock hazard.
- c) Since the DEVELOPMENT KIT is not a completed product, it may not meet all applicable regulatory and safety compliance standards (such as UL, CSA, VDE, CE, RoHS and WEEE) which may normally be associated with similar completed products. You assume full responsibility to determine and/or assure compliance with any such standards and related certifications as may be applicable. You have to use reasonable safeguards to ensure that your use of the DEVELOPMENT KIT will not result in any property damage, injury or death, even if the DEVELOPMENT KIT should fail to perform as specified or expected.

**Certain Instructions.** It is important to handle this DEVELOPMENT KIT within Renesas Electronics and WE's recommended specifications and environmental considerations as described in the Manual. Surpassing the specified DEVELOPMENT KIT classifications (including but not limited to input and output voltage, current, power, and environmental ranges) may cause property damage, personal injury or death. If there are questions concerning these classifications please contact a WE external sales representative before connecting interface electronics including input power and intended loads. Any loads applied beyond the specified output range may result in unintended and/or inexact operation and/or possible lasting damage to the DEVELOPMENT KIT and/or interface electronics. Please consult the DEVELOPMENT KIT Manual prior to connecting any load to the DEVELOPMENT KIT output. If there is uncertainty regarding the load specification, please contact an Renesas Electronics or WE external sales representative. During normal operation, some circuit components may have case temperatures greater than 60°C as long as the input and output are maintained at a normal ambient operating temperature. These components include but are not limited to linear regulators, switching transistors, pass transistors, and current sense resistors which can be identified by using the DEVELOPMENT KIT schematic published in the DEVELOPMENT KIT Manual. Please be aware that the devices of the DEVELOPMENT KIT may be very warm in case of placing the measurement test setup close to the DEVELOPMENT KIT during normal procedure. Please ensure that only qualified personnel educated in electronic measurement and diagnostics usually found in development environments should use these DEVELOPMENT KITs.

Agreement to Defend, Indemnify and Hold Harmless. You agree to defend, indemnify and hold Panesas Bectronics, WE, its licensors and their representatives harmless from and against any and all claims, damages, losses, expenses, costs and liabilities (collectively, "Claims") arising out of or in connection with any use of the DEVELOPMENT KIT that is not in accordance with the terms of the agreement. This obligation shall apply whether Claims arise under law of tort or contract or any other legal theory, and even if the DEVELOPMENT KIT fails to perform as specified or expected.

Safety-Critical or Life-Critical Applications. If you intend to evaluate the components for possible use in safety critical applications (such as life support) where a failure of the Renesas Electronics or WE product would reasonably be expected to cause severe personal injury or death, such as devices which are classified as FDA Class III or similar classification, you have to specifically notify Renesas Electronics or WE of such intent and enter into a separate Assurance and Indemnity Agreement.

re information	Support	
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