

USER MANUAL

EVALUATION BOARD/KIT FOR RADIO
MODULE THALASSA

2606031x2100X

VERSION 3.3

DECEMBER 1, 2025

WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

MUST READ

Check for firmware updates

Before using the product, make sure you use the most recent firmware version, data sheet, and user manual. This is especially important for Wireless Connectivity products that were not purchased directly from Würth Elektronik eiSos. A firmware update on these respective products may be required.

We strongly recommend including the possibility of a firmware update in the customer system design.

Contents

| | |
|----------------------------------------------------------------------------------------------------------------------|-----------|
| 1 Abbreviations | 2 |
| 2 Revision history | 3 |
| 3 Supported radio modules | 4 |
| 4 Functional description | 5 |
| 4.1 Taking into operation | 5 |
| 5 Development board | 6 |
| 5.1 Block diagram | 6 |
| 5.2 Overview | 7 |
| 5.3 Jumpers | 8 |
| 5.4 Connectors and pin headers | 10 |
| 5.5 Buttons | 13 |
| 5.5.1 CONFIG button, S2 | 13 |
| 5.6 LEDs | 14 |
| 5.7 Function blocks | 15 |
| 5.7.1 Power supply | 15 |
| 5.7.1.1 Self powered, power jack | 15 |
| 5.7.1.2 Bus powered, power supply through USB | 15 |
| 5.8 Current measurement | 15 |
| 5.9 UART / USB | 16 |
| 5.9.1 UART direct | 17 |
| 5.10 Programming interface | 17 |
| 5.11 Schematic | 19 |
| 5.12 Layout | 21 |
| 6 Marking | 24 |
| 6.1 Lot number | 24 |
| 7 Regulatory compliance information | 25 |
| 7.1 Exemption clause | 25 |
| 8 Important notes | 26 |
| 9 Terms of Use for Würth Elektronik eiSos GmbH & Co. KG EV-Boards, evaluation kits and evaluation modules | 26 |
| 10 Legal notice | 28 |
| 11 License terms | 29 |

1 Abbreviations

| Abbreviation | Name | Description |
|--------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------|
| BDM | Business Development Engineer | Support and sales contact person responsible for limited sales area |
| HIGH | High signal level | Digital voltage level that is detected as high by the module |
| LOW | Low signal level | Digital voltage level that is detected as low by the module |
| RF | Radio frequency | Describes everything relating to the wireless transmission |
| UART | Universal Asynchronous Receiver Transmitter | Universal Asynchronous Receiver Transmitter allows communicating with the module of a specific interface |
| VDD | Voltage Drain Drain | Supply voltage |

2 Revision history

| Manual version | HW version | Notes | Date |
|----------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 1.0 - 2.7 | 2.0 | <ul style="list-style-type: none">• Initial version | June 2017 |
| 3.0 | 3.0 | <ul style="list-style-type: none">• New corporate design and structure | December 2018 |
| 3.1 | 3.0 | <ul style="list-style-type: none">• Added chapter Regulatory compliance information | February 2019 |
| 3.2 | 3.0 | <ul style="list-style-type: none">• Added Marketing name• Moved product image to chapter Supported radio modules | March 2019 |
| 3.3 | 3.0 | <ul style="list-style-type: none">• Added chapter LEDs• Correction of default jumper settings in chapter Jumpers | May 2019 |

3 Supported radio modules

The EV-Board described in this manual can be used to evaluate the following products:

| WE order code | Former order code | Marketing Name |
|---------------|-------------------|----------------|
| 260603102100x | AMB2524(-TR) | Thalassa |
| 260603112100x | AMB2524-1(-TR) | Thalassa |
| 260603132100x | AMB2524-2(-TR) | Thalassa |

Table 3: Compatibility

| WE order code | Description |
|---------------|---------------------------------------------------------|
| 260603102100x | 2.4GHz proprietary radio module with integrated antenna |
| 260603112100x | 2.4GHz proprietary radio module with antenna pad |
| 260603132100x | 2.4GHz proprietary radio module with UFL connector |

Table 4: Order codes

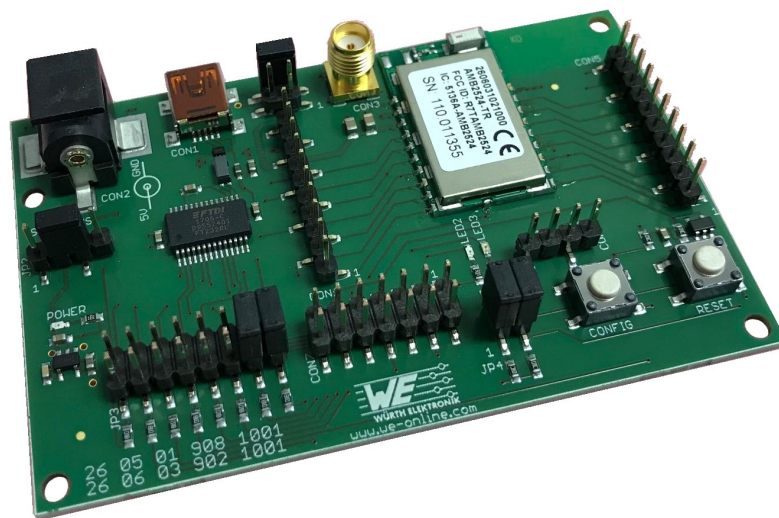


Figure 1: Product image

4 Functional description

The EV-Board offers the user the possibility to develop hard- and software for the compatible radio module. It can be connected to an USB port of a PC.

For the connection to a microcontroller system the development board is equipped with a multi-pin connector which is connected to all pins of the RF module. Jumpers allow the module to be disconnected from components which are not required such as the USB interface.

Feel free to check our YouTube channel for video tutorials, hands-ons and webinars related to our products:

www.youtube.com/user/WuerthElektronik/videos

4.1 Taking into operation

To run the EV-Board place the jumpers on default position as described in chapter 5.3.

The corresponding FTDI driver package (www.ftdichip.com/Drivers/VCP.htm) has to be installed on your PC.

Connect the power jack or external power supply to the EV-Board and make sure the VCC is stable and able to reliably supply the module's static and peak current consumption as specified by the module manual.

The next step is to connect the EV-Board to the PC using a USB-cable. In that way a COM port can be detected and installed on your PC. Check the device manager to acquire the COM port name of the EV-Board. A typical name is "COM12" in Windows systems or /dev/ttyUSB0 in Linux systems.

A terminal program (like hterm for Windows) has to be run and the corresponding COM port has to be opened using the default settings of the mounted radio module.

After the module is powered through the USB jack or an alternative power supply, the reset button should be pressed to ensure a clean start-up of the module.

Please refer to the module user manual to get the detailed module specific quick start instructions.

5 Development board

5.1 Block diagram

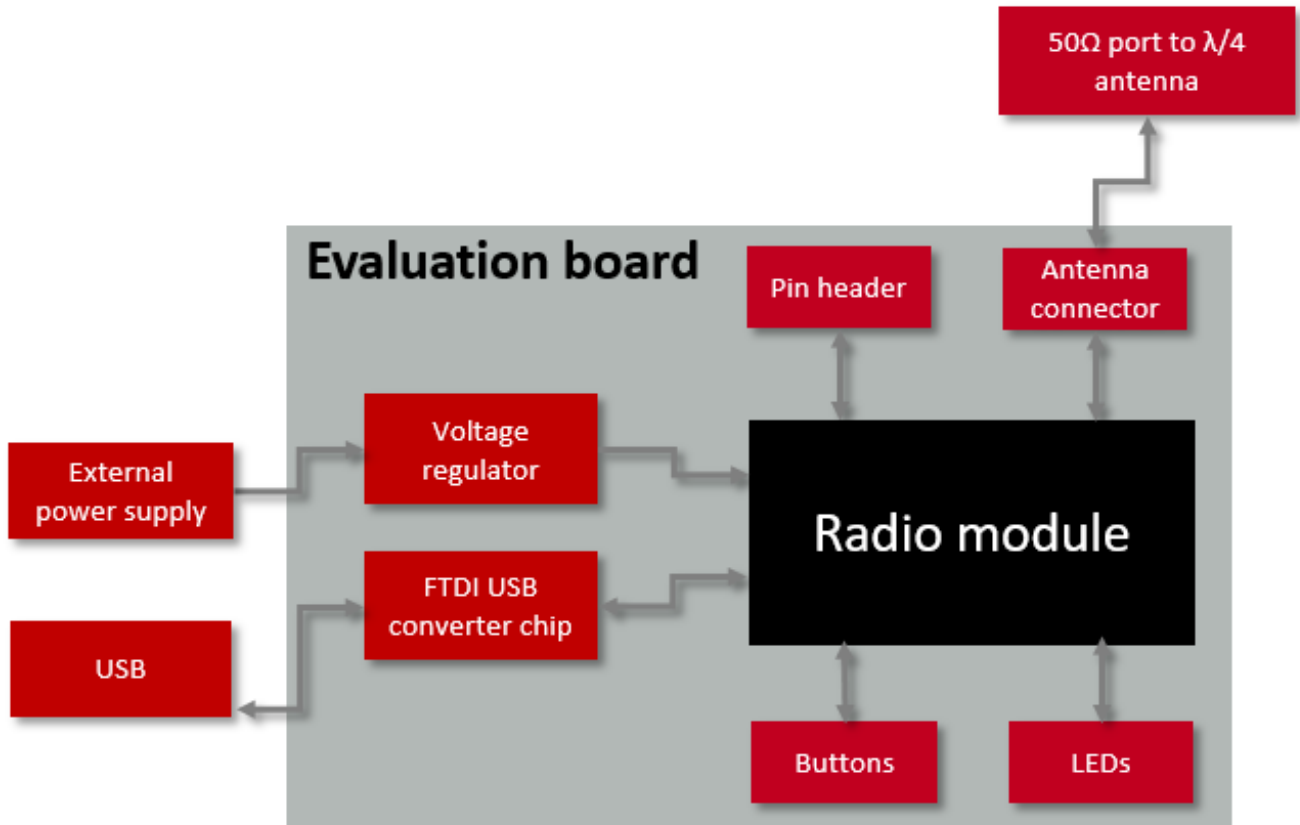


Figure 2: Block diagram

5.2 Overview

On the back of the module is a complete table of all connector and jumper pins printed for easy use of the EV-Board without using the manual once being familiar with it.

| | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>CON1 MICRO USB -----</p> <p>CON2 5V POWER SUPPLY -----</p> <p>CON3 SMA RF-SIGNAL -----</p> <p>CON4 1: RSVD 2: RSVD 3: #DATA_REQUEST 4: #DATA_INDICATE 5: #RTS (TCK) 6: URXD 7: UTXD 8: UCC_AMB 9: GND 10: NC/ANT -----</p> | <p>CON5 1: SLEEP 2: TRX_DISABLE 3: #CONFIG 4: RSVD 5: #RST 6: RSVD 7: RSVD 8: RSVD 9: RSVD 10: RSVD -----</p> <p>CON6 1: GND 2: GND 3: GND 4: GND -----</p> <p>CON7 JTAG 1: RSVD (TDO) - 14: NC 2: RSVD (TDI) - 13: UCC 3: RSVD (TMS) - 12: NC 4: #RTS (TCK) - 11: TEST_AMB 5: GND - 10: NC 6: #RST - 9: NC 7: NC - 8: NC -----</p> | <p>JP1 ... <-> MODULE 1: NC <-> 4: NC 2: UCC_AMB <-> 3: UCC</p> <p>JP2 SUPPLY SELECTION 1 <-> 2 CON2 SUPPLIED 2 <-> 3 USB SUPPLIED 4: NC</p> <p>JP3 1: TXD_FTDI <-> 16: RX 2: RXD_FTDI <-> 15: TX 3: #RTS_FTDI <-> 14: RSVD (TDO) 4: #CTS_FTDI <-> 13: #RTS (TCK) 5: #DTR_FTDI <-> 12: RSVD (TDI) 6: #DSR_FTDI <-> 11: RSVD 7: #DCD_FTDI <-> 10: RSVD 8: #RI_FTDI <-> 9: RSVD (TMS)</p> <p>JP4: 1: TRX_DISABLE <-> 4: UCC 2: SLEEP <-> 3: UCC</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Figure 3: Printing on the back, table of connector and jumper

5.3 Jumpers

The following figure shows the default positioning (marked in red) of all jumpers on the EV-Board. This section also contains the details to any jumper connection that is supported by the EV-Board.

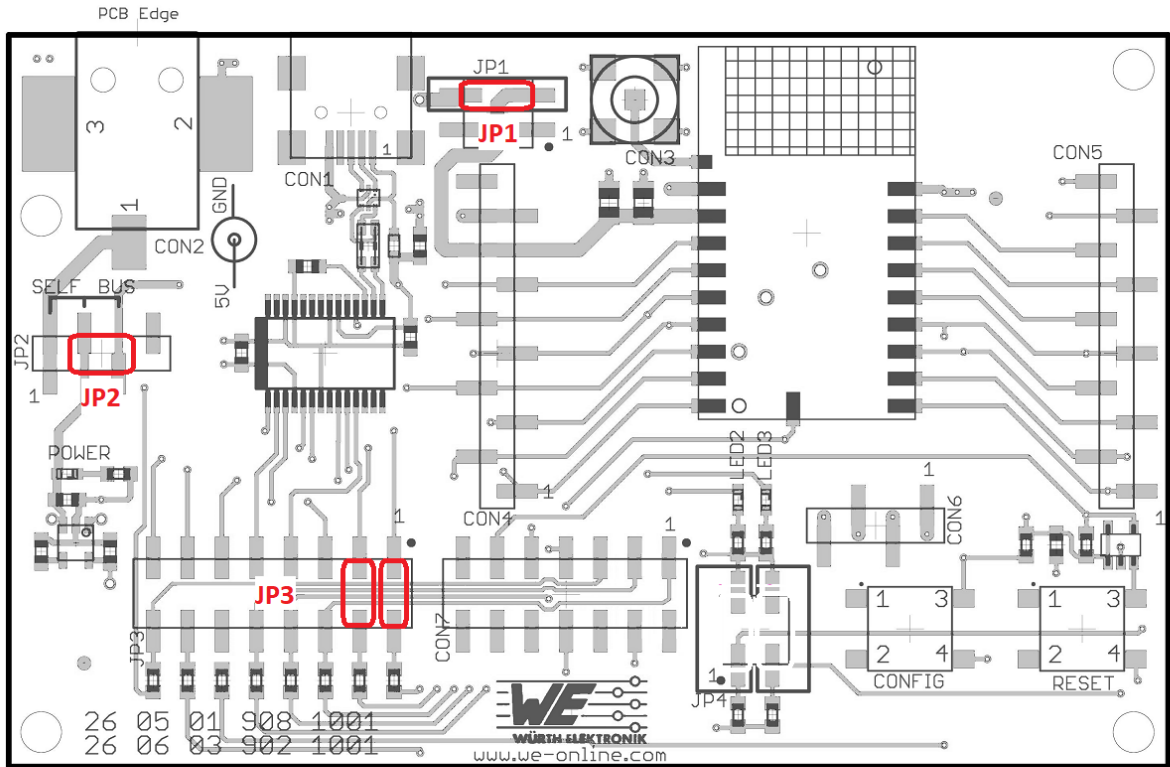


Figure 4: Jumpers in default position

JP1 connects the power supply to the module and can be replaced by an ampere meter for current consumption measurement.

| JP1 | Module Pin Function | Jumper set (default) |
|-----|-----------------------------------------|----------------------|
| 2,3 | Connect VCC to voltage regulator output | Yes |
| 1,4 | NC, not connected | No |

With JP2 the supply voltage source can be chosen.

| JP2 | Module Pin Function | Jumper set (default) |
|-----|----------------------------------|----------------------|
| 1,2 | Connect LDO to voltage jack CON2 | No |
| 2,3 | Connect LDO to USB 5 V | Yes |
| 3,4 | No function, pin4 not connected | No |

JP3 serves to connect module pins to the USB converter.

| JP3 | Module Pin Function | Jumper set (default) |
|------|---------------------|----------------------|
| 1,16 | URXD | Yes |
| 2,15 | UTXD | Yes |
| 3,14 | RESERVED | No |
| 4,13 | RESERVED | No |
| 5,12 | RESERVED | No |
| 6,11 | RESERVED | No |
| 7,10 | RESERVED | No |
| 8,9 | RESERVED | No |

JP4 connects the configuration pins to pull ups.

| JP4 | Module Pin Function | Jumper set (default) |
|-----|---------------------|----------------------|
| 2,3 | TRX_DISABLE | No |
| 1,4 | SLEEP | No |

5.4 Connectors and pin headers

This section explains all connectors on the EV-Board.

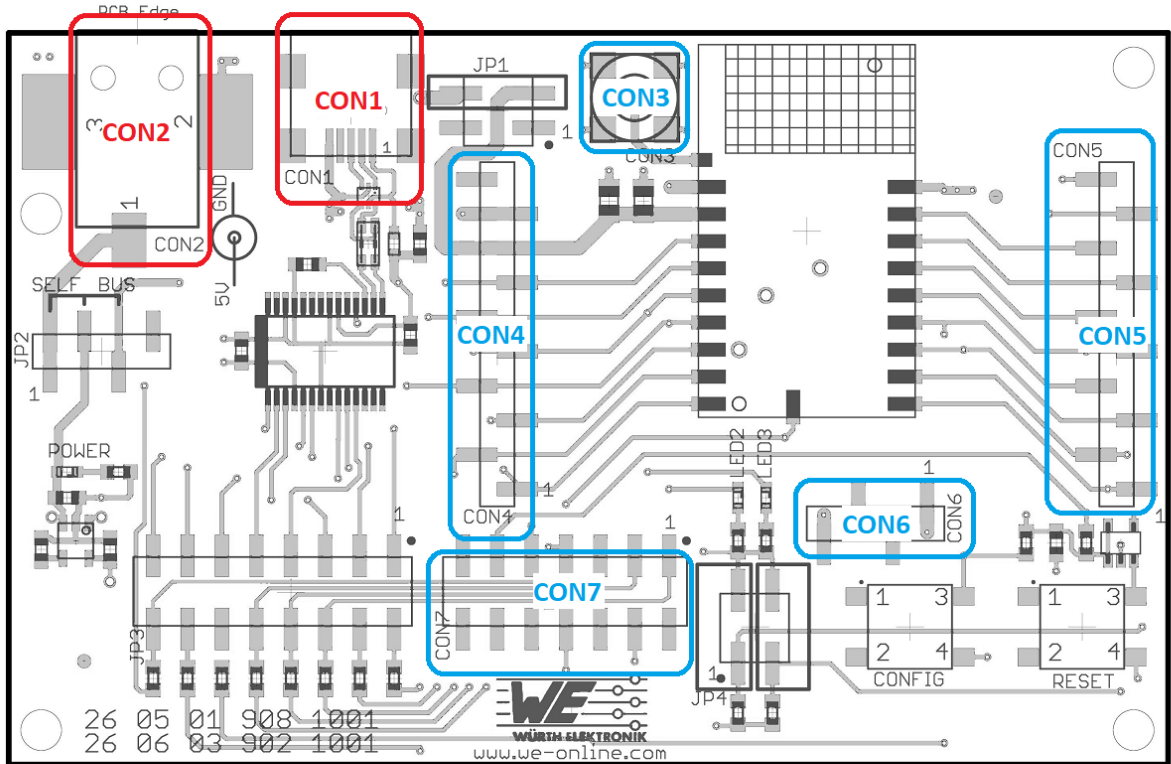


Figure 5: Connectors

The red marked connectors are needed for the main functions of the module. The blue marked connectors are optional for additional equipment and future functions.



In this chapter all available pins and connectors are described. This does not mean that these functions are or can be enabled in the firmware version currently running on the module.

Connector CON1 is used to connect the UART after converted into an USB signal towards a PC.

| CON1 | Function |
|------|------------------------------------------------------------|
| | Micro-USB connector for host connection and VCC bus supply |

Connector CON2 suits to connect to power supply.

| CON2 | I/O | Function |
|-------|--------|----------|
| inner | Supply | 5 V |
| outer | Supply | GND |

Connector CON3 is a coaxial SMA female connector for an external antenna.

| CON3 | I/O | Function |
|-------|-----|-----------|
| inner | I/O | RF signal |
| outer | I/O | GND |

Connectors CON4 and CON5 make all module pins available for testing purpose.

| CON4 | I/O | Function |
|------|--------|----------------|
| 1 | - | RESERVED |
| 2 | - | RESERVED |
| 3 | I | /DATA_REQUEST |
| 4 | O | /DATA_INDICATE |
| 5 | O | /RTS (TCK) |
| 6 | I | URXD |
| 7 | O | UTXD |
| 8 | Supply | VCC |
| 9 | Supply | GND |
| 10 | - | NC |

| CON5 | I/O | Function |
|------|-----|-------------|
| 1 | I | SLEEP |
| 2 | I | TRX_DISABLE |
| 3 | I | /CONFIG |
| 4 | - | RESERVED |
| 5 | I | /RST |
| 6 | - | RESERVED |
| 7 | - | RESERVED |
| 8 | - | RESERVED |
| 9 | - | RESERVED |
| 10 | - | RESERVED |

Connector CON6 gives the possibility to connect ground.

| CON6 | I/O | Function |
|------|--------|----------|
| 1 | Supply | GND |
| 2 | Supply | GND |
| 3 | Supply | GND |
| 4 | Supply | GND |

Connector CON7 is the JTAG debugging interface. It can be used in case of custom firmware development with "debug" firmware and is locked when using a "production" firmware.

| CON7 | Function | CON7 | Function |
|------|----------|------|----------|
| 1 | TDO | 14 | NC |
| 2 | TDI | 13 | VCC |
| 3 | TMS | 12 | NC |
| 4 | TCK | 11 | TEST |
| 5 | GND | 10 | NC |
| 6 | /RST | 9 | NC |
| 7 | NC | 8 | NC |

5.5 Buttons

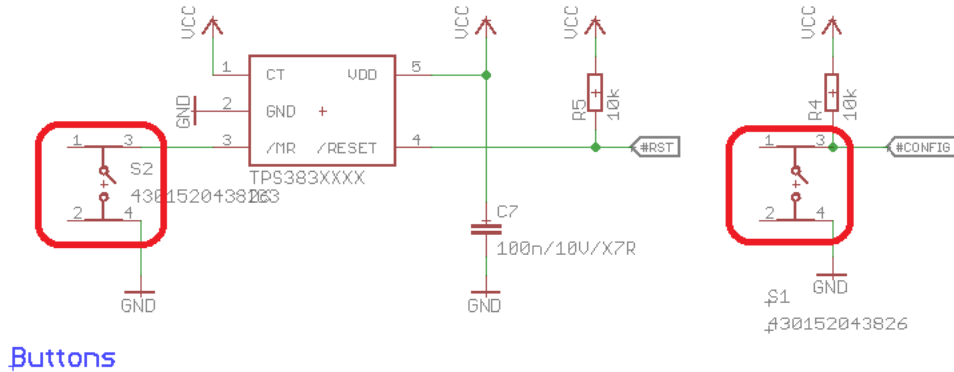


Figure 6: Buttons

5.5.1 CONFIG button, S2

By means of the S2 pushbutton the module can be switched between the command mode and transparent mode.

The switching takes place after recognition of a falling edge on the */CONFIG* pin (pushing button S2) and is acknowledged through a respective command. The switching of the modes can only take place while no data is being received via RF (*/RTS* has to be low).

5.6 LEDs

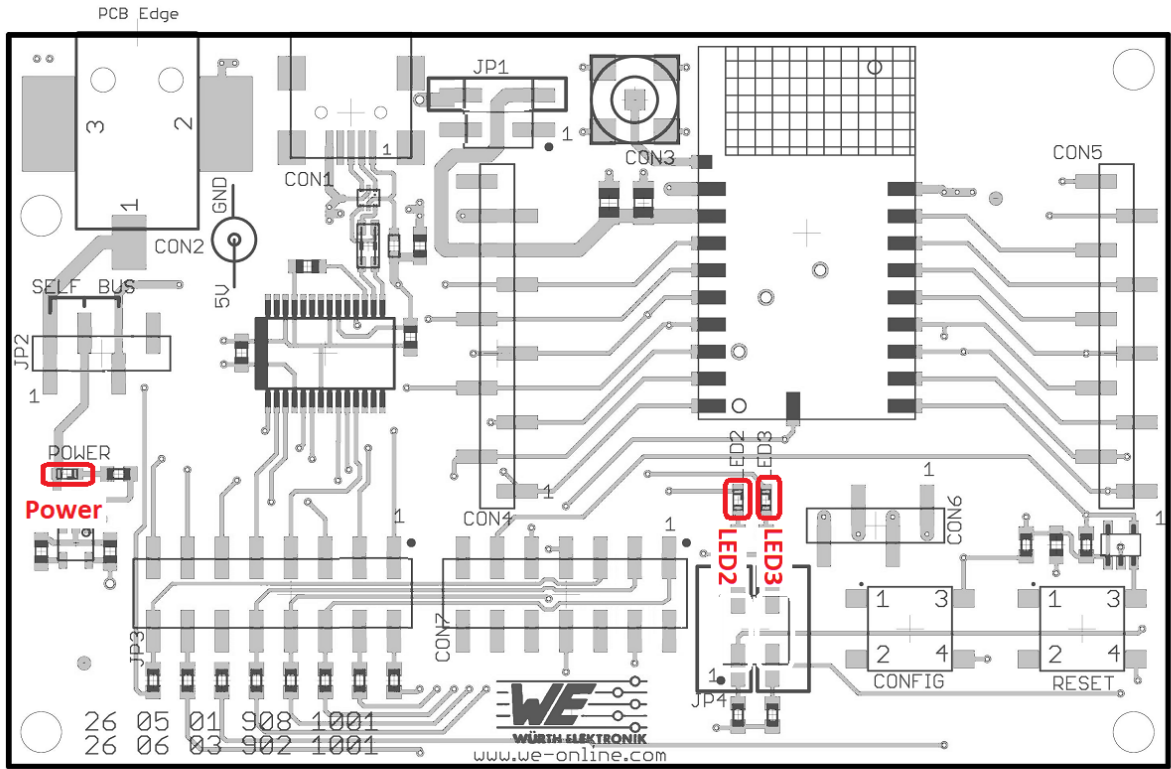


Figure 7: LEDs

| LED | Function |
|-------|--------------------------------------|
| Power | 5 V Power supply is attached |
| LED2 | /DATA_IND, packet receive indication |
| LED3 | /RTS UART activity |

LED2 and LED3 eases range measurements in transparent mode by visualising over the air received data (LED2) and sent data (LED3) by blinkgin corresponding to the table above.

5.7 Function blocks

5.7.1 Power supply

The development board can be operated via USB or an other 5 V Voltage source using the on board LDO 3.3 V voltage regulator. When the power is connected LED1, the power LED will be on.

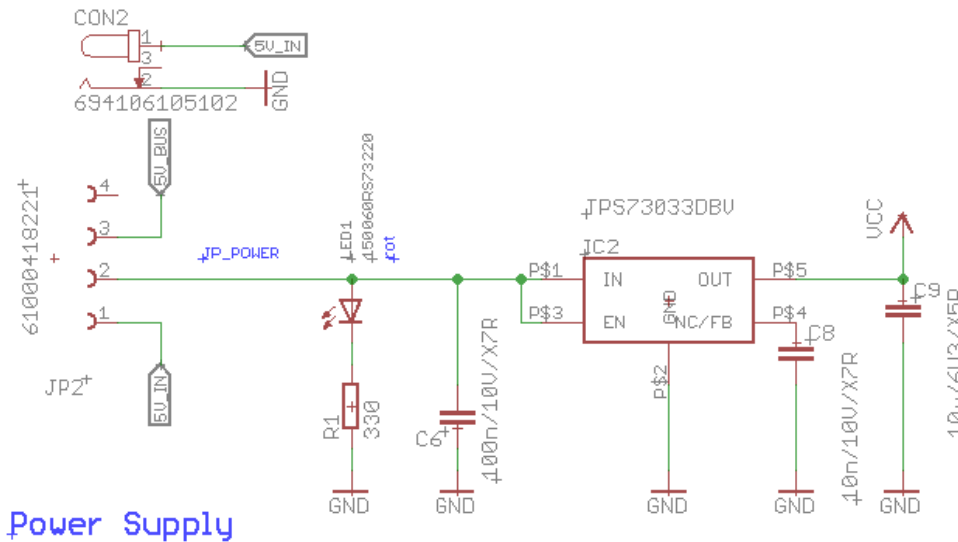


Figure 8: Power Supply

5.7.1.1 Self powered, power jack

The power supply is connected to the connector CON2 by setting the jumper JP2 to SELF (connecting pin 1 to pin 2). LED1, the power LED shows that the board is supplied.

The inner pin of the DC plug (ST_POWER) is the positive pole.

5.7.1.2 Bus powered, power supply through USB

Connecting a USB and setting the jumper JP2 to BUS (connecting pin2 to pin3), the module is supplied via USB. In this case it is not needed to connect Power to CON2. The 'POWER' LED shows that the module is supplied with power. The regulated voltage defines the UART TTL voltage level for the USB-to-UART converter.

5.8 Current measurement

The supply voltage of 3.3 V is available on JP1 pin 3. In the default configuration it is connected by placing a jumper on pin 3 - pin 2. After removing the jumper a current meter can be connected to monitor the current consumption of the module.



Attention: The LED 'POWER' also lights up with removed jumper JP1 as it is connected before the current measurement bridge so that its current is not accumulated into the module current when measuring.

5.9 UART / USB

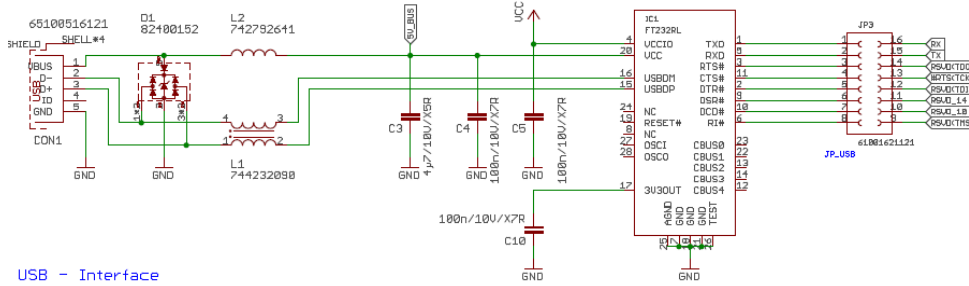


Figure 9: USB Interface

In order to use the USB interface the corresponding USB driver has to be installed on the PC. On JP3 the UART has to be connected, jumpers have to be placed on pin 1-16 and 2-15 for UTXD and URXD.

In order to establish a stable UART communication between the FTDI USB to UART converter and the radio module's chipset, the difference between the baud rates of each entity must not exceed the respective immunity level. Both devices use an internal clock to generate the configured UART baud rate. Due to the fixed clock frequency, only specific baud rates can be run without frequency error.

To figure out which baud rates of the radio module can be evaluated using the FTDI USB to UART converter (FT232R or FT231X), it is important to know the real baud rate B with its introduced error. To get them, the FTDI's clock of 3000 kHz must be divided by the respective prescaler P :

$$B = \frac{3000}{P} \text{ [kBaund]}$$

The supported prescalers P can be chosen as:

$$P \in \{1, 1.5\} \text{ or } P = 2 + (N \cdot 0.125) \text{ with } N \in \{0, 1, 2, 3, 4, \dots\}$$

When a baud rate is configured in the FTDI USB to UART converter, the prescaler is chosen that meets the closest baud rate. In that case, the real baud rate differs from the configured one, introducing a UART clock error, which may lead to UART communication issues.

Example: In case the desired baud rate $B_{desired} = 1250$ kBaund, the desired prescaler is $P_{desired} = \frac{3000}{1250} = 2.4$. The closest prescaler P is determined by $P = 2 + (N \cdot 0.125) = 2.375$ with $N = 3$. This results in a real baud rate $B = \frac{3000}{2.375} = 1263$ kBaund, which introduces an error of $\frac{B - B_{desired}}{B_{desired}} = 1.04\%$ with respect to the desired baud rate.

| Desired baud rate [kBaud] | Closest prescaler P | Real baud rate B [kBaud] | Error [%] |
|---------------------------|-----------------------|----------------------------|-----------|
| 3000 | 1 | 3000 | 0 |
| 2500 | 1.5 | 2000 | -20 |
| 2000 | 1.5 | 2000 | 0 |
| 1500 | 2 | 1500 | 0 |
| 1250 | 2.375 | 1263 | 1.04 |
| 1411.764706 | 2.125 | 1411.764706 | 0 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| 1000 | 3 | 1000 | 0 |
| 921.6 | 3.25 | 923.0769231 | 0.16 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| 230.4 | 13 | 230.7692308 | 0.16 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| 115.2 | 26 | 115.3846154 | 0.15 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| 38.4 | 78.125 | 38.4 | 0 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| 19.2 | 156.25 | 19.2 | 0 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| 9.6 | 312.5 | 9.6 | 0 |
| ⋮ | ⋮ | ⋮ | ⋮ |

Table 5: Example baud rates

5.9.1 UART direct

If a microcontroller is to be connected to the module, the jumpers on JP3 have to be removed. The UART can be connected directly on the pin strip CON4. The module RXD line must be handled accordingly by your host (i.e. pulled up while inactive and during module boot-up).

Beware of I/O level incompatibility. The host must obey the values stated in the module’s manual. Especially the I/O level restrictions must be implemented by a host system (i.e. using a level shifter to use the allowed I/O levels).

5.10 Programming interface

The EV-Board provides a 2*7 pin connector in RM2.54 to connect directly to a JTAG flash adapter used for development. Please take care of the correct mounting of the flash adapter.

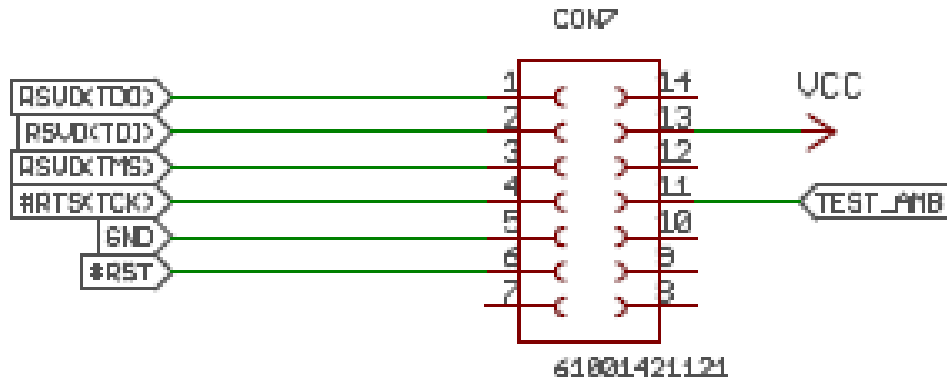
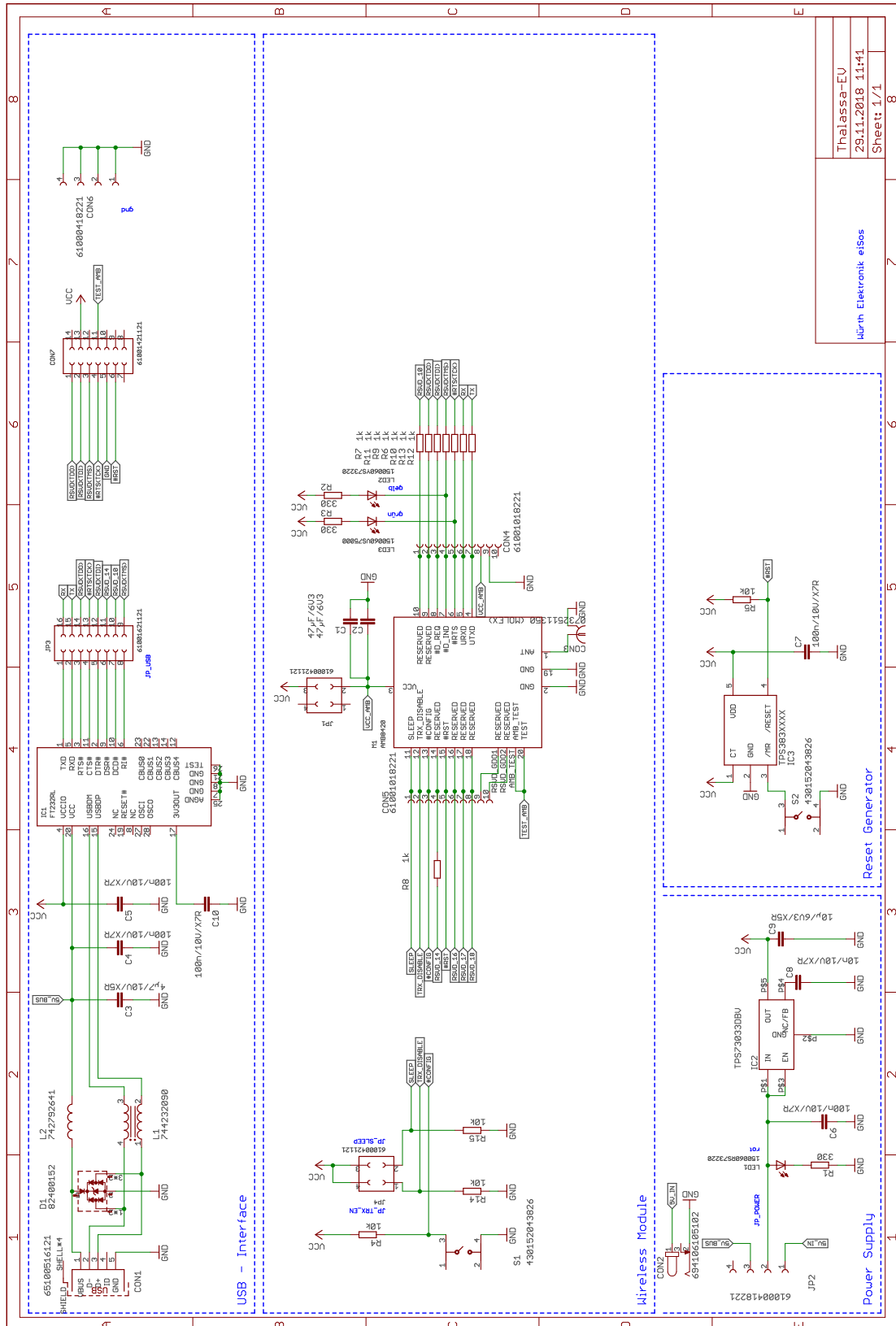


Figure 10: JTAG Interface

5.11 Schematic



Thalassa-EV
29.11.2018 11:41
Sheet: 1/1
Würth Elektronik eiSos

Figure 11: Circuit diagram

5.12 Layout

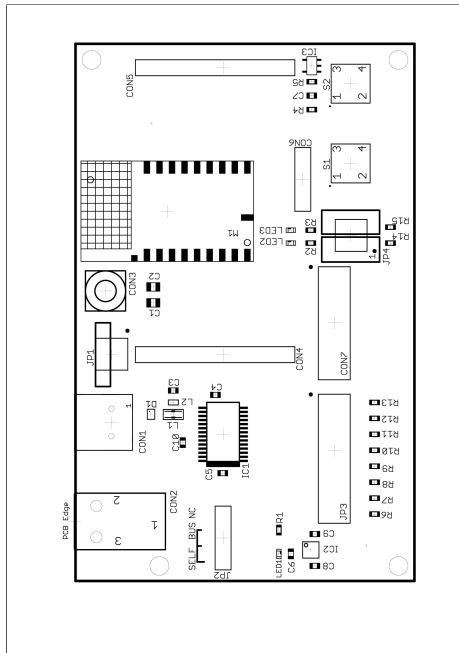


Figure 12: Assembly diagram

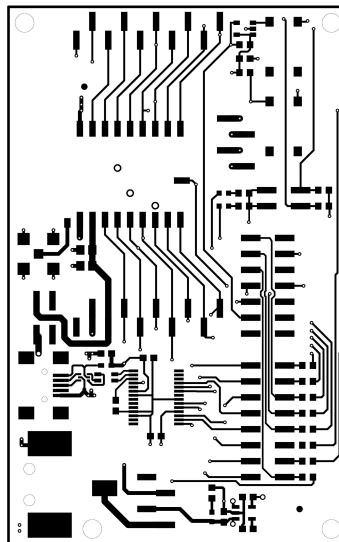


Figure 13: Top Layer

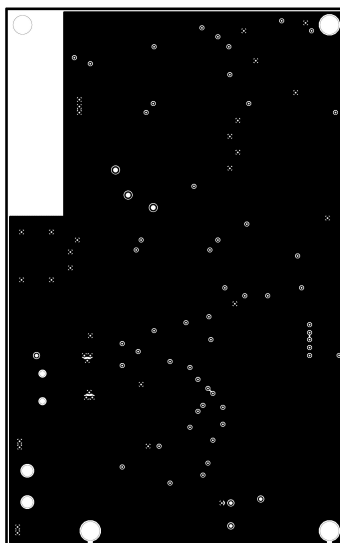


Figure 14: Internal Layer 2

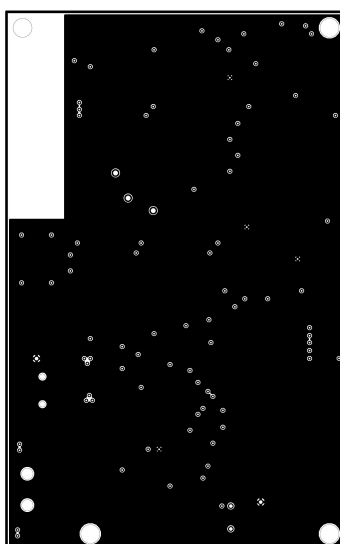


Figure 15: Internal Layer 3

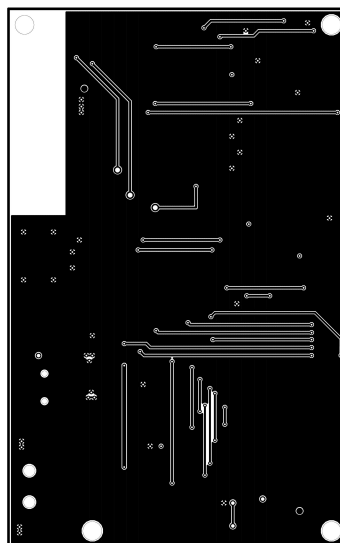


Figure 16: Bottom Layer

6 Marking

6.1 Lot number

The 15 digit lot number is printed in numerical digits as well as in form of a machine readable bar code. It is divided into 5 blocks as shown in the following picture and can be translated according to the following table.

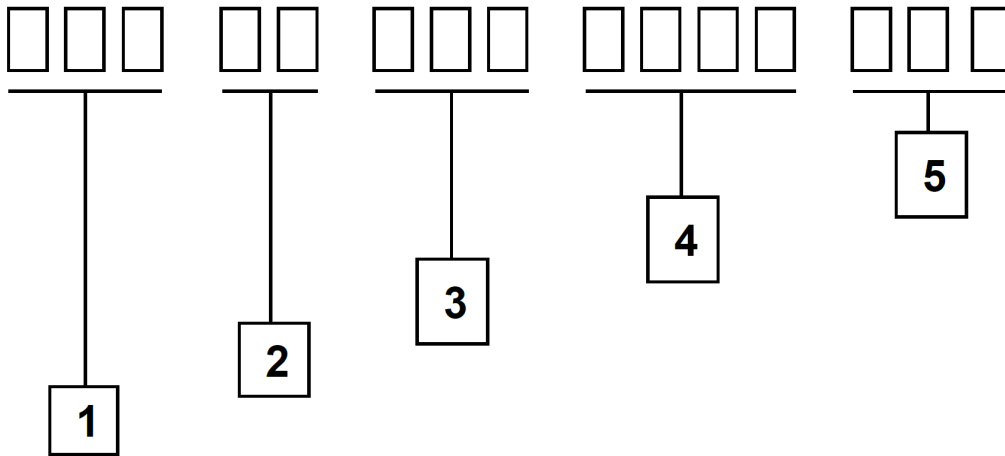


Figure 17: Lot number structure

| Block | Information | Example(s) |
|-------|-----------------------------------------|-------------------------------------------------------------|
| 1 | eiSos internal, 3 digits | 438 |
| 2 | eiSos internal, 2 digits | 01 |
| 3 | Radio module hardware version, 3 digits | V2.4 = 024, V12.2 = 122 |
| 4 | Date code, 4 digits | 1703 = week 03 in year 2017, 1816 = week 16 in year 2018 |
| 5 | Radio module firmware version, 3 digits | V3.2 = 302, V5.13 = 513 |

Table 6: Lot number details

As the user can perform a firmware update the printed lot number only shows the factory delivery state. The currently installed firmware can be requested from the module using the corresponding product specific command. The firmware version as well as the hardware version are restricted to show only major and minor version not the patch identifier. Block 5 is not applicable for products without firmware.

7 Regulatory compliance information

Pursuant to Article 1 (2.) of the EU directive 2014/53/EU, Article 1 (2.) the directive does not apply to equipment listed in Annex I (4.): custom-built EV-Kits destined for professionals to be used solely at research and development facilities for such purposes.

7.1 Exemption clause

Relevant regulation requirements are subject to change. Würth Elektronik eiSos does not guarantee the accuracy of the before mentioned information. Directives, technical standards, procedural descriptions and the like may be interpreted differently by the national authorities. Equally, the national laws and restrictions may vary with the country. In case of doubt or uncertainty, we recommend that you consult with the authorities or official certification organizations of the relevant countries. Würth Elektronik eiSos is exempt from any responsibilities or liabilities related to regulatory compliance.

Notwithstanding the above, Würth Elektronik eiSos makes no representations and warranties of any kind related to their accuracy, correctness, completeness and/or usability for customer applications. No responsibility is assumed for inaccuracies or incompleteness.

8 Important notes

The following conditions apply to all goods within the wireless connectivity and sensors product range of Würth Elektronik eiSos GmbH & Co. KG:

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Some goods within the product range of Würth Elektronik eiSos GmbH & Co. KG contain statements regarding general suitability for certain application areas. These statements about suitability are based on our knowledge and experience of typical requirements concerning the areas, serve as general guidance and cannot be estimated as binding statements about the suitability for a customer application. The responsibility for the applicability and use in a particular customer design is always solely within the authority of the customer. Due to this fact, it is up to the customer to evaluate, where appropriate to investigate and to decide whether the device with the specific product characteristics described in the product specification is valid and suitable for the respective customer application or not. Accordingly, the customer is cautioned to verify that the documentation is current before placing orders.

Customer responsibility related to specific, in particular safety-relevant applications

It has to be clearly pointed out that the possibility of a malfunction of electronic components or failure before the end of the usual lifetime cannot be completely eliminated in the current state of the art, even if the products are operated within the range of the specifications. The same statement is valid for all software source code and firmware parts contained in or used with or for products in the wireless connectivity and sensor product range of Würth Elektronik eiSos GmbH & Co. KG. In certain customer applications requiring a high level of safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health, it must be ensured by most advanced technological aid of suitable design of the customer application that no injury or damage is caused to third parties in the event of malfunction or failure of an electronic component.

Best care and attention

Any product-specific data sheets, manuals, application notes, PCNs, warnings and cautions must be strictly observed in the most recent versions and matching to the products revisions. These documents can be downloaded from the product specific sections on the wireless connectivity and sensors homepage.

Customer support for product specifications

Some products within the product range may contain substances, which are subject to restrictions in certain jurisdictions in order to serve specific technical requirements. Necessary information is available on request. In this case, the Business Development Engineer (BDM) or the internal sales person in charge should be contacted who will be happy to support in this matter.

Product improvements

Due to constant product improvement, product specifications may change from time to time. As a standard reporting procedure of the Product Change Notification (PCN) according to the JEDEC-Standard, we inform about major changes. In case of further queries regarding the PCN, the Business Development Engineer (BDM), the internal sales person or the technical support team in charge should be contacted. The basic responsibility of the customer as per section 8 and 8 remains unaffected.

All software like "wireless connectivity SDK", "Sensor SDK" or other source codes as well as all PC software tools are not subject to the Product Change Notification information process.

Product life cycle

Due to technical progress and economical evaluation, we also reserve the right to discontinue production and delivery of products. As a standard reporting procedure of the Product Termination Notification (PTN) according to the JEDEC-Standard we will inform at an early stage about inevitable product discontinuance. According to this, we cannot ensure that all products within our product range will always be available. Therefore, it needs to be verified with the Business Development Engineer (BDM) or the internal sales person in charge about the current product availability expectancy before or when the product for application design-in disposal is considered. The approach named above does not apply in the case of individual agreements deviating from the foregoing for customer-specific products. The approach named above does not apply in the case of EV-Boards. EV-Boards may be changed without any notification.

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Evaluation board/kit user manual

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General warnings

Do not touch the EVB when it is live, and allow charged components, such as capacitors, to discharge completely before handling the EVB. Depending on the individual application, high voltages can occur on the EVB and some components can reach temperatures above 50 °C. Even after disconnecting the EVB from the power source, these conditions remain for a significant time. Please ensure that the appropriate safety precautions are taken when installing and operating this EVB, as one of the following may occur if you handle or use this EVB without observing the relevant safety precautions: - Death - Serious injury - Electric shock - Electric burns - Severe heat burns -

When using the EVB, you undertake to read the instructions for use in full together with the relevant information supplied and/or available on the homepage www.we-online.de/wcs-manuals before putting this EVB into operation. The following points have to be observed in particular:

- Do not touch the EVB while it is live.
- The EVB must be fully assembled and all devices to be tested must be connected before voltage is applied to the EVB.
- The EVB should never be left unattended during operation.
- Capacitors must be completely discharged. The capacitors must be actively discharged using a suitable resistor.

Protection against static electricity

Use the unpackaged product only in ESD protected areas. Wear the ESD personal protective equipment prescribed for these areas. Ground all conductive components, including personnel, as prescribed in ESD protected areas. Ensure that the product is only used by trained personnel.

Purpose and use

The EVB is not a finished product and is not intended for general use by the consumer. The EVB is intended exclusively for use in the evaluation of WE components in the lab or in development environments by highly qualified technicians or engineers, familiar with the risks involved in handling electrical or mechanical components, systems and subsystems. The use of the EVB is your full and independent responsibility. The EVB is expressly not intended to be installed in a terminal device or to be part of a terminal device in whole or in part. WE reserves the right, at its own discretion, to make corrections, improvements, adjustments or other changes to the EVB or to discontinue the EVB. The EVB is not intended for use in devices and applications for which a higher safety and reliability standard is prescribed. It is also not approved for use in safety-relevant applications or where personal injury or fatal consequences must be expected in the event of failure.

Operation of the EVB

The EVB may only be operated within the specifications and environmental parameters recommended by WE, as described in the instructions for use. Exceeding the specified parameters (including, but not limited to, input and output voltage, current, power, and ambient conditions) may result in damage to property. If you have questions about these electrical parameters, please contact WE at (regulatory-compliance@we-online.com) prior to connecting peripheral electronics (including the input voltage and intended loads). Any load outside a certain power range may lead to negative consequences, including, but not limited to, unintended or inaccurate evaluations or possibly permanent damage to the EVB or the electronics connected to it. Please ensure that the appropriate safety precautions are taken when working with the EVB, as serious injuries, including severe or even fatal injuries from electric shock or electric burns, may occur if you do not follow the appropriate safety precautions. Under no circumstances should the EVB be touched while live. When the EVB is connected to a power source, some of its components are electrically charged and/or have temperatures above 50 °C. This condition also applies for a short time after disconnecting from the supply voltage until the capacitors are completely discharged and hot components have cooled down. These components include connectors, linear regulators, switching transistors, heat sinks, resistors, diodes, inductors and other components, which can be identified from the documentation in the instructions for use. As with all electronic lab work, only qualified persons with knowledge of electronic performance evaluation, measurement and diagnostic tools, should use the EVB.

Hazards and warnings

Before putting the EVB into operation, please read the instructions for use and especially the various hazards and warnings described therein. The instructions for use contain important safety information on voltages and temperatures. You take full responsibility and liability for the proper and safe handling of the EVB. You agree to comply with all safety requirements, rules and regulations related to the use of the EVB. You also take full responsibility for: (1) establishing safeguards to ensure that the use of the EVB does not cause damage to property, personal injury or death, even if the EVB does not function as described, intended or expected, (2) the test setup in which the EVB is integrated, all safety requirements, rules and regulations and also that no damage to property, personal injury or other hazardous situation occurs even if the EVB fails, and (3) ensuring the safety of all activities performed by you or your employees when using the EVB. In particular, this means that the technical rules VDE [German Electrical Engineering, Electronic and Information Technology Association] 0105-100 and BGI [German trade association information] 891 (or corresponding applicable safety regulations outside Germany) for the operation of electrical test setups must be observed, the test area is protected against unauthorized access or accidental touching, current limitations, and emergency stop mechanisms are functional and test setups are never operated unattended. If you have any questions about the safe use of the EVB, please contact WE at regulatory-compliance@we-online.com for more information.

Your responsibility with regard to the applicable laws

- You are responsible for being sufficiently informed about and complying with all international, national, state and local applicable laws, rules and regulations that apply to the handling or use of the EVB by you or your employees.
- The EVB generates, uses and radiates radio frequency energy, but has not been tested for conformity with the limits applicable to the product category, which are applicable according to the European Union regulations for protection against radio frequency interference. Operation of the EVB may cause interference with radio communication. In this case, the costs incurred for necessary measures to remedy the interference are to be borne by the user.

As the EVB is not a finished product, it may not comply with applicable regulatory, safety or certification standards that are normally as-

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We recommend you to be updated about the status of new firmware and software, which is available on our website or in our data sheet and manual, and to implement new software in your device where appropriate.

By ordering a product, you accept these license terms in all terms.

List of Figures

| | | |
|----|---------------------------------------------------------------|----|
| 1 | Product image | 4 |
| 2 | Block diagram | 6 |
| 3 | Printing on the back, table of connector and jumper | 7 |
| 4 | Jumpers in default position | 8 |
| 5 | Connectors | 10 |
| 6 | Buttons | 13 |
| 7 | LEDs | 14 |
| 8 | Power Supply | 15 |
| 9 | USB Interface | 16 |
| 10 | JTAG Interface | 18 |
| 11 | Circuit diagram | 20 |
| 12 | Assembly diagram | 21 |
| 13 | Top Layer | 21 |
| 14 | Internal Layer 2 | 22 |
| 15 | Internal Layer 3 | 22 |
| 16 | Bottom Layer | 23 |
| 17 | Lot number structure | 24 |

List of Tables

| | | |
|---|------------------------------|----|
| 3 | Compatibility | 4 |
| 4 | Order codes | 4 |
| 5 | Example baud rates | 17 |
| 6 | Lot number details | 24 |



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