DVK2400-USB

(2.4GHz Transceiver Development Kit)
(for IEEE 802.15.4 Standard)

USER Manual

Revision History Hardware

Revision	Date	Description of Changes
V01	Jan. 2012	Initial release

Table of Contents

1. Getting Started

1.1 Development Kit Contents

The development kit DVK2400-USB is delivered with all the components, documentations and software listed below:

- A pair of US2400-CS boards (50Ω Connector Board with SMA)
- A pair of MCU2400-USB (Microprocessor Board with USB interface
- PC Software "RF-Tool 1.0" for RF testing
- PC Software "RF-Tool 2.0" for protocol debugging
- A pair of USB-Cables

1.2 Optional Components

The following components are not included in the DVK but can be ordered optionaly:

- US2400-CU board (50Ω Connector Board with U.FL)
- US2400-A board (Chip antenna board)

Please see in section 2.2 "Evaluation Board Variants"

1.3 Software Installation

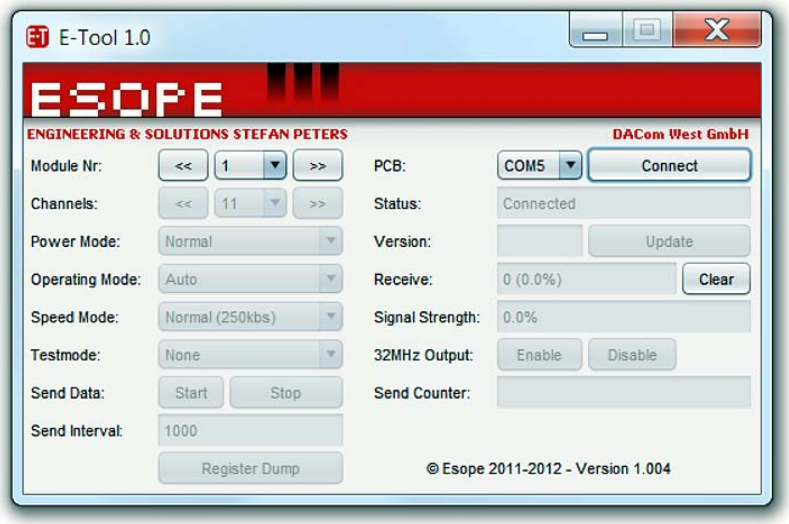
There is not installation process needed. The program is only one *.exe file that can be started directly. The program create a *.dll file therefore we recommend to copy this file into a dedicated folder of your choice before you start it.

1.3.1 Different Software Tools

- The RF-Tool 1.0 is dedicated for RF testing. You can toggle different channels, test and power modes.
- The RF-Tool 2.0 implement function like packet and protocol sniffer and is most useful for application protocol analyses and debugging.

For more information about the PC-Software please use the separated documentation:

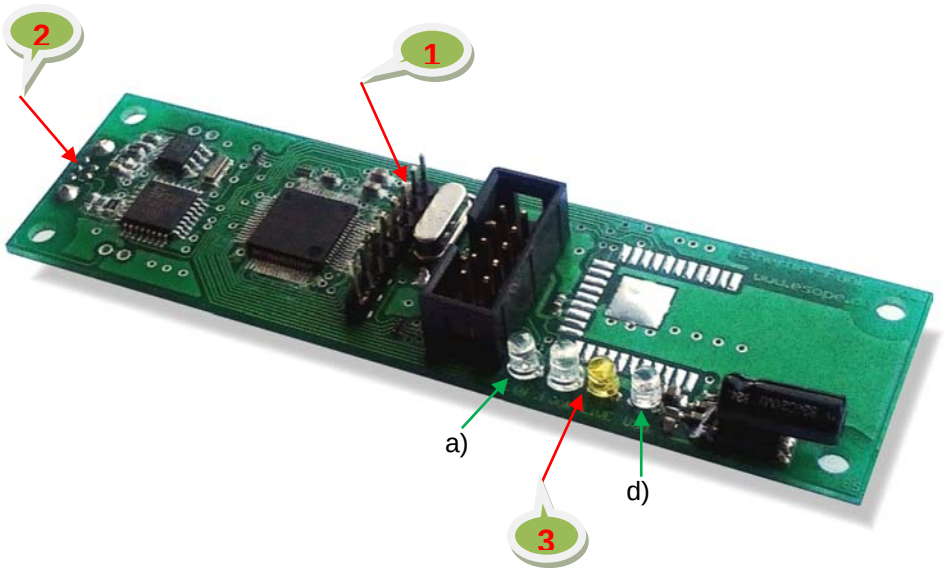
- User Manual "RF-Tool 1.0" (PC-Software for RF Test -> E-Tool1.0))



- User Manual "RF-Tool 2.0" (PC Software for Protocol debugging), zur Zeit noch nicht verfügbar!

2. Instruction MCU2400-USB Board

2.1 Board Overview



Das Bild zeigt das MCU2400-USB Board:

(1) Anschluss des RF-Evaluation Boards, nur im ausgeschalteten Zustand, d. h. vor anstecken des USB-Kabels.

(2) USB Schnittstelle zum PC.

(3) Status LEDs:

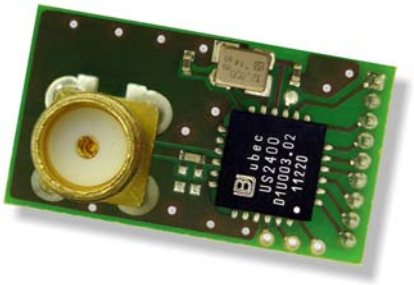
a)	EIN–	Leuchtet, sobald die Platine Strom hat
b)	FUNK –	Ist dauerhaft an, wenn ein Funkmodul angesteckt ist
c)	LIVE –	Blinkt dauerhaft, während des Betriebs
d)	VDAI –	Blinkt, wenn das Funk Modul Daten sendet

(4) Reset Taste: Zur Zeit nicht Verfügung, Funktion erfolgt nur über ein Power-on-Reset

Hinweis:
Sollte bei der Platine die "LIVE" LED auch nach einem Hardware- und Software- Neustart nicht mehr blinken ist die Platine wahrscheinlich defekt.

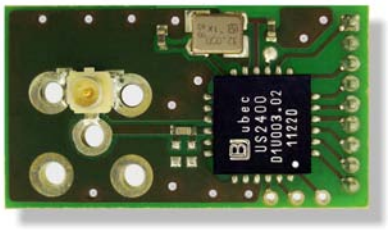
2.2 Evaluation Board Variants

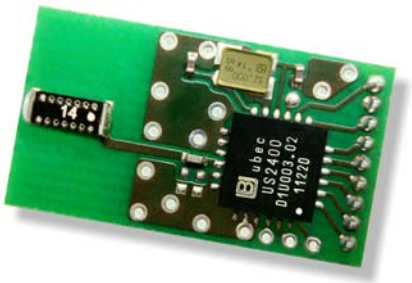
Type	Board Execution		Part No.
US2400-	CS	Connector version SMA	US2400-CS
	CU	Connector version U.FL	US2400-CU
	A	Antenna version	US2400-A



US2400-CS

US2400-CU

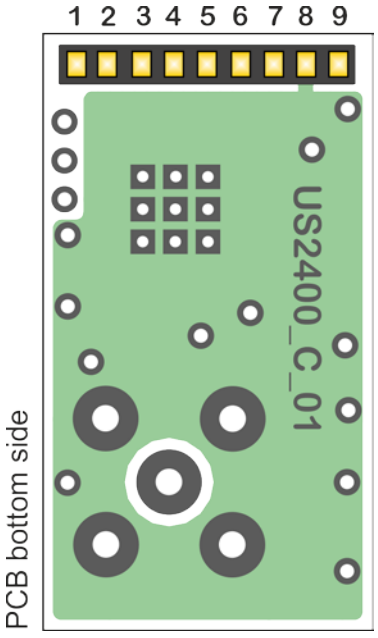




US2400-A

2.3 Connector Interface J1 (SPI Communication)

Pin	Pin Name	Description
1	RESETn	Global hardware reset pin, active low
2	Wake up	External wake up trigger
3	INT	Interrupt pin to microprocessor
4	MISO	Serial interface data output
5	MOSI	Serial interface data input
6	SCLK	Serial interface clock
7	SCL	Serial interface enable
8	GND	Ground
9	VDD	Power supply 2.4 - 3.6V



- For more detailed information, please refer to the latest US2400-EVB application note revision !

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