

EMB-WMBx-EVK

Evaluation Kit - Short Datasheet

The EMB-WMBx-EVK Evaluation Kit contains all the components necessary to start evaluation of Embit's W-MBus modules; in particular EMB-WMBx-EVK allows the customer to quickly learn how to establish a wireless connection between Embit radio modules.

The Evaluation Kit EMB-WMBx-EVK allows the user to exploit all the capabilities of Embit's modules, simplifying the implementation of a prototype of a complete wireless communication system. Every board can be quickly and easily connected to a computer or to an external processor via USB or RS-232 interface. For testing purposes, several pin headers are available to probe all Embit radio modules' signals and to exploit Embit radio modules' capabilities.

Embit radio modules can be used with two different approaches:

- Wireless modem
- Embedded system

Using the module as a wireless modem is possible by using the “*ebi*” host interface. This firmware allows the user to control the network with simple binary commands. This is the fastest way to obtain wireless connectivity in systems that already have a host device (another microcontroller or a PC).

If more features, efficiency and cost effectiveness is needed, or if no host device is present, the application can be developed on the MCU installed on the Embit module itself, exploiting all the capabilities of the embedded microcontroller; this is possible thanks to Embit's *Wireless M-Bus Software Development Kit*.

For this reason, two kit are available: the *LIGHT Kit* contains 2 boards (no user programming capabilities); the *FULL Kit* instead contains 4 boards, the USB JTAG programming interface and the *Embit Wireless M-Bus SDK* [1], documentation and a sample application (wireless pulse counter).

In both kits PC applications are included to quickstart using Embit's modules: the *ebi-serial-tester*, a simple application which allows user to send *ebi* commands; and *ebi-sniffer*, a radio packet sniffer useful to debug the network and site monitoring.



EMB-WMBx-EVK Evaluation Kit Content		LIGHT Kit	FULL Kit
EMB-WMBx-EVB	Evaluation Board carrying EMB-WMBx module	2	4
USB CABLE	USB supply / connection with a PC	2	4
EMB-ANx ANTENNA	Compact Antenna (169 MHz or 868 MHz)	2	4
EMB-AN169-001	Ground Plane antenna (only for 169 MHz kit)	1	1
MSP-FET430UIF	USB debugger interface	0	1
EMB-MULTIPROG	Programmer adapter	0	1
U.FL TO SMA PIGTAIL	RF cable	2	4
CD DOCS	CD-ROM with documentation and binaries	1	1

Ordering Information:

Part No.	Mcu	Description
EMB-WMB169PA-EVK Light	MSP430F5340	EMB-WMB169PA Evaluation Kit Light Version
EMB-WMB169PA-EVK Full	MSP430F5340	EMB-WMB169PA Evaluation Kit Full Version
EMB-WMB868-EVK Light	MSP430F5340	EMB-WMB868 Evaluation Kit Light Version
EMB-WMB868-EVK Full	MSP430F5340	EMB-WMB868 Evaluation Kit Full Version

[1] Embit *Wireless M-Bus SDK* requires Texas Instruments *Code Composer Studio*® (not included). Time/size limited trial version available from TI.

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