

EMB-Z253x-EVK

Evaluation Kit – Short Datasheet

The EMB-Z253x-EVK Evaluation Kits contain all the components necessary to start evaluation of the Embit's family of EMB-Z253xPA modules (in particular: EMB-Z2530PA, EMB-Z2538PA). Thanks to these development kits customers can learn very quickly how to establish a wireless connection between two EMB-Z253xPA radio modules.

The Evaluation Kit EMB-Z253x-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 in two different modes:

1. as wireless modems working with AT-like UART commands
2. as programmable embedded systems

The modules of the EMB-Z253x-EVK kits come pre-programmed with EBI (Embit Binary Interface), which allows to setup and operate the modules as wireless modems with simple binary AT-like commands over the modules' UART interfaces. This is the fastest way to obtain wireless connectivity in systems that already have a host device (another microcontroller or a PC); in particular the two evaluation boards included in the EMB-Z253x-EVK can be used with EBI, sending the binary AT-like commands from a host computer, through the "EBI Serial Tester" application (compatible with all versions of Microsoft® Windows OS).

If more features, efficiency and cost effectiveness is needed, or if no host device is present, a full embedded application can be developed on the MCU installed on the Embit modules themselves, exploiting all the capabilities of the embedded microcontroller (either a Texas Instruments® CC2530 or a Texas Instruments® CC2538). In this case, the CD-ROM shipping with EMB-Z253x-EVK contains all required libraries to start developing your 802.15.4-based or ZigBee-based application (IAR Embedded Workbench for 8051 is the

IDE that must be used*). Your custom firmware can then be downloaded using the Texas Instruments® CC debugger/programmer and the EMB-MULTIPROG programmer adapter (both included in the EMB-Z253x-EVK).

Detailed content list:

EMB-Z253x-EVK Evaluation Kit Content		
Part No.	Description	Quantity
EMB-Z253x-EVB	Evaluation Board carrying EMB-Z253x module	2
USB CABLE	USB supply / connection with a PC	2
EMB-AN24-20 ANTENNA	Compact antenna (2.4 GHz)	2
CC-DEBUGGER	Texas Instruments® programmer/debugger via USB interface	1
EMB-MULTIPROG	Programmer adapter	1
U.FL TO SMA PIGTAIL	RF cable	2
CD DOCS	CD-ROM with documentation and binaries	1

Ordering Information:

Part No.	MCU	Description
EMB-Z2530PA-EVK	CC2530	EMB-Z2530PA Evaluation Kit
EMB-Z2538PA-EVK	CC2538	EMB-Z2538PA Evaluation Kit

* IAR Embedded Workbench for 8051 is not included in the kit. Please refer to <http://www.iar.com/> for more informations about IAR software and about IAR licensing.