EMB-LRx-EVK
LoRa™ Evaluation Kit — Short Datasheet

The EMB-LRx-EVK Evaluation Kits contain all the components necessary to start evaluation of the Embit's family of EMB-LRx modules (Semtech®-based modules); in particular EMB-LRx-EVK kits allow the customer to quickly learn how to establish a wireless connection between Embit radio modules.

The Evaluation Kits EMB-LRx-EVK allow 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 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 "EBI" (AT-like) UART commands
2. as programmable embedded systems

The modules of the EMB-LRx-EVK are 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-LRx-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. In this case, the CD-ROM shipping with EMB-LRx-EVK contains all required libraries to start developing your LoRa™ or LoRaWAN™ application (using Atmel® Studio IDE). The custom firmware can then be downloaded using the SEGGER J-Link JTAG programmer and the EMB-MULTIPROG programmer adapter (both included in the EMB-LRx-EVK).

Detailed content list:

EMB-LRx-EVK Evaluation Kit Content		
Part No.	Description	Quantity
EMB-LRx-EVB	Evaluation Board carrying EMB-LRx module	2
USB CABLE	USB supply / connection with a PC	2
EMB-ANx ANTENNA	Compact Antenna (868 MHz)	2
SEGGER J-LINK LITE ARM	JTAG debug probe	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	Transceiver	Description
EMB-LR1272-EVK	Atmel ATSAMD20G18	Semtech SX1272	EMB-LR1272 Radio Module Evaluation Kit

* Note that Atmel® Studio is completely free of charge and can be used to develop firmware without time or firmware-size limits.

The information contained herein is subject to change without notice.