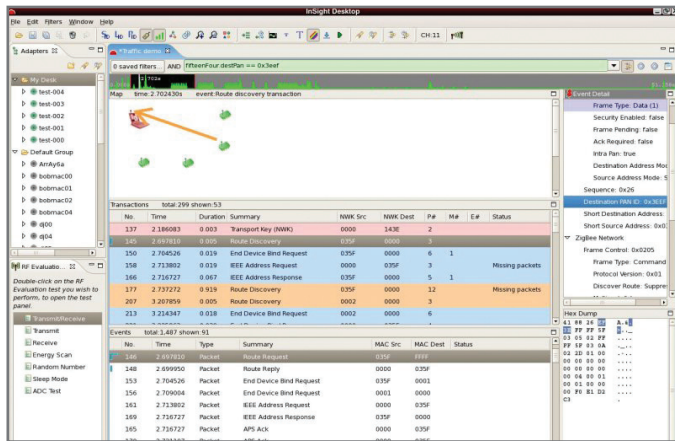


InSight Development Kit

Development Tools for Embedded ZigBee Wireless Applications

Tools

Fact Sheet



InSight Desktop

Embedding Value through Wireless Connectivity

Ember's Development Kits are an integral part of the Ember InSight Development Environment, the premier embedded ZigBee wireless networking development platform, consisting of software and hardware tools that are the most comprehensive tools available for ZigBee product development.

The foundation of these tools is the remote network monitoring and debugging capabilities built into every element of the development environment, starting with Ember chips, which have designed in a unique packet trace capability allowing every node in an Ember development network to report time-stamped radio traffic, API activity and application prints across an Ethernet LAN to a centralized PC-based software package – InSight Desktop – which analyses and filters the data for presentation to the user. This not only eliminates the need for separate 'sniffer' nodes and expensive sniffer software, but delivers much more accurate and chronologically synchronized information from a more widely dispersed network than might normally be supported by traditional tools. By making use of the LAN infrastructure already present in most offices, developers can build quite large and dispersed development and test networks, which they can monitor and control from a central location.

Ember InSight Development Kits provide all the basic tools needed to start building these development and test networks. A key component is the InSight Adapter (ISA or ISA3), which provides connectivity across an Ethernet LAN to nodes in the developer's network, allowing remote programming and collection of time-synchronized packet, API and application information from many nodes at once.

InSight Desktop, the key software tool provided with all Ember Development Kits, also includes Ember's AppBuilder tool, which in conjunction with an application framework provided with the EmberZNet PRO stack libraries, enables customers to easily and quickly configure and build ZigBee Certifiable applications using ZigBee public application profiles such as ZigBee Smart Energy and ZigBee Home Automation, as well as custom applications.

These tools, combined with Ember's market leading EmberZNet PRO software stack and Ember's commitment to service, support and training, gives customers everything they need to create high performance, robust, scalable, ZigBee certifiable products in record time.

The Ultimate ZigBee Development Kit

"Of all the ones I have looked at in the past, Ember's EM35x Development Kit is the best I have seen to date."

William Wong,
Technology Editor, [Electronic Design](#)



EM35x Development Kit

Choosing Your Ember Development Kit

Choosing your Ember development kit is tied to the choice of your Ember chip platform. Some elements of Ember's development kits are common to the different chip platforms, in particular the InSight Desktop software tool, however the hardware (e.g. InSight Adapters) and compilers (e.g. IAR EWAVR, IAR EWARM, xIDE) could be different.

EM35x Series Development Kit (Part No: EM35X-DEV or EM35X-DEV-IAR)

This kit can be used for EM351 and EM357 system-on-chips (SoC) based development.

Customers starting new ZigBee SoC projects on an Ember platform will most likely want to choose the EM35x Series Development Kit as their start point, due to the industry leading performance and application space on the ARM Cortex-M3 based EM351 and EM357 SoCs. There are two variants:

- EM35X-DEV includes a 30-day trial license for IAR Embedded Workbench for ARM.
- EM35X-DEV-IAR includes a full standalone 256k-limited license for Embedded Workbench for ARM.

Customers not yet committed to a development program, or those already with licenses for IAR EWARM may wish to purchase EM35X-DEV, while customers with a committed program and without pre-existing IAR EWARM licenses may wish to purchase EM35X-DEV-IAR. An IAR EWARM license (P/N: EM35X-DEV-UPG-IAR) for use with EM35x Development Kit may be purchased separately.

EM35x Family as a Network Co-Processor (NCP)

The Ember EM35x NCP Add-on kit (Part No: EM35X-NCP-ADD-ON-S) enables NCP development with an existing EM35x Development kit, allowing designers to take maximum advantage of the superior power consumption, radio performance and CPU performance of the EM35x series chips in a network co-processor configuration.

EM250 JumpStart Kit (Part No: EM250-JMP-R)

Customers who already have EM250 designed into their products and engineering teams familiar with Ember's EM250 SoC platform may wish to purchase additional EM250 Jumpstart Kits and components to expand their development capabilities for this platform. This kit comes with a full license for InSight Desktop and a full license for xIDE for EM250, the compiler/IDE required for EM250 development.

EM260 JumpStart Kit (Part No: EM260-JMP-R)

EM260: Customers with projects involving a large host microcontroller with multiple applications and/or communications devices connected may wish to use the EM260 networking co-processor platform for their ZigBee design. Customers who wish to leverage existing investment and expertise in other microcontrollers may also wish to use EM260.

Specifications

EM35x Development Kit

Hardware

- EM35x Radio Control Modules Board (3)
- EM35x Breakout Board (3)
- EM35x InSight Adapter - ISA3 - (3)
- EM35x Module Variety Pack (1 Box with 6 modules)
- Radio Frequency Cable (1)
- InSight Port Cable (3)
- Data Emulation Interface Cable (3)
- Power Supplies and Battery Pack (3)
- 8 Port Switch w/4 x POE ports (1)

Software

- InSight Desktop
- IAR Embedded Workbench (Trial Version), with EM35X-DEV; OR
- IAR Embedded Workbench for ARM (BaseLine Standalone License), with EM35X-DEV-IAR

Add-on Kit

- EM35x NCP Breakout Board
- EM35x Module
- STM32 Host Module
- Battery pack

EM250 & EM260 JumpStart Kit

Hardware

- EM250 / EM260 Radio Control Modules (RCM) Board (3)
- EM250 / EM260 Breakout Board (3)
- EM250 / EM260 InSight Adapter (3)
- MC Card to SMA Cable (1)
- InSight Port Cable (3)
- Power Supplies and Battery Pack (3)
- Extended Debug Cable (3)
- 8 Port Switch w/4 x POE ports (1)

Software

- InSight Desktop
- xIDE Compiler (1 Seat)

About Ember

Ember Corporation (www.ember.com) develops wireless mesh networking technology — chips, software and tools — for Smart Energy, connected homes, and many other monitoring and control applications enabling greener living and work environments. The Boston-based company is a promoter of the ZigBee Alliance with an IC design center in Cambridge, England, an office in Hong Kong and sales channels and distributors worldwide.

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