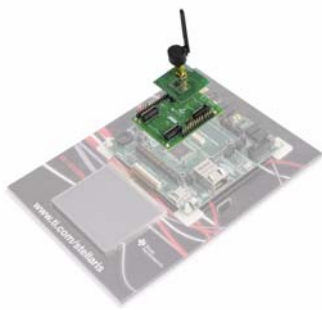


# 2.4 GHz ZigBee Wireless Networking on Stellaris®

The Stellaris® 2.4 GHz ZigBee Wireless Networking Kit from Texas Instruments provides a low-power RF network solution for customers' end equipment. The solution combines TI's Z-Stack implementation of the ZigBee and ZigBee Pro protocols with the new Stellaris EM2 expansion board and the Chipcon 2.4 GHz 802.15.4 evaluation module along with the full suite of tools an engineer needs to develop and prototype ZigBee applications with Stellaris. The DK-EM2-2520Z wireless kit works with our most popular Stellaris microcontroller development kit, the DK-LM3S9B96 (sold separately).

ZigBee software is aimed at addressing the market need for a cost-effective, standards-based wireless networking solution that supports low data-rates, low-power consumption, security, and reliability. Such networks typically contain a large number of battery-operated devices networked through an array of routers that report data to a central coordinator. This includes applications in markets such as remote monitoring and control and sensor networking.

The Stellaris® ZigBee solution allows software application developers to become familiar with the operation of the CC2520EMK evaluation module using their Texas Instruments' Stellaris embedded microcontroller platform without having to be concerned about the RF portion of the system. The Stellaris EM2 expansion board facilitates the connection of up to two wireless expansion modules using SPI as the primary interface to the DK-EM2-2520Z module.



TI's Chipcon 2.4 GHz 802.15.4 Evaluation Module, Stellaris EM2 Expansion Board, and DK-LM3S9B96 Development Kit

## Features

- Supports ZigBee (ZigBee 2006 and ZigBee PRO 2007 feature sets)
- Supports both the Home Automation and Smart Energy application profiles
- Secure, self-healing mesh networking capability
- Worldwide market acceptance and interoperability
- Low-cost and low-power

## Included Software Sample Application

- ZigBee Coordinator Temperature Sensor Data Collector

## Kit Contents



DK-EM2-2520Z Kit Contents

The Stellaris® 2.4 GHz ZigBee Wireless Networking Kit provides the tools engineers need to set up and develop wireless applications right out of the box including:

- 1 DK-LM3S9B96 EM2 Expansion Board
- 1 CC2520EMK 2.4 GHz 802.15.4 Evaluation Module
- 2 CC2530EMK 2.4 GHz 802.15.4 Evaluation Modules (integrated 8051 processor)
- 2 SmartRF05BB Battery Boards
- 1 CC-Debugger
- CD with tools, documentation, and source code

## Ordering Information

The Z-Stack ZigBee software provided for this kit is currently a beta release and has not yet been certified by the ZigBee Alliance. Prior to certification, a pre-certification waiver must be signed to receive a link to download the software. To be notified when Z-Stack has been certified and is approved for end-user production use, go to [www.ti.com/stellariswireless](http://www.ti.com/stellariswireless) and select "Alert me about changes to this product" in the upper right corner of the page.

Product Number	Description
DK-EM2-2520Z	Stellaris® 2.4 GHz ZigBee Wireless Networking Kit (includes DK-LM3S9B96-EM2 Expansion Board)
DK-LM3S9B96	Stellaris® LM3S9B96 Microcontroller Development Kit (sold separately)

For more information on Stellaris wireless solutions:  
[www.ti.com/stellariswireless](http://www.ti.com/stellariswireless)

Texas Instruments • 108 Wild Basin, Suite 350 • Austin, TX 78746  
<http://www.ti.com/stellaris>

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