

Quick Start Instructions

CC2420 ZigBee DK Development Kit

Introduction

The CC2420 is a single-chip, IEEE 802.15.4 compliant and ZigBee ready RF transceiver. It provides a highly integrated, flexible low-cost solution for applications using the worldwide unlicensed 2.4 GHz frequency band. The CC2420 ZigBee DK is a natural supplement to the already established Chipcon CC2420 kits, i.e. the CC2420DK Development Kit and the CC2420DBK Demonstration Board Kit. The hardware is representative of an actual application, and is well suited as a prototyping, evaluation and demonstration platform targeting various ZigBee applications. With this kit a ZigBee Logical device type mapped to the IEEE 802.15.4 Full Function or Reduced Function Device (FFD and RFD) using the CC2420 can be demonstrated. An FFD can take the role of a ZigBee Coordinator, Router, or End Device depending on the ZigBee logical device type configuration. An RFD can act as ZigBee End Device and cannot serve as a ZigBee Coordinator or ZigBee Router.

The CC2420 ZigBee DK provides, in addition to five CC2420DB's, a CC2400EB that together with CC2420EM can utilize the capability of running Chipcon's Packet Sniffer with the ZigBee packet parser addition.

The hardware is documented in the CC2420 ZigBee DK User Manual, Z-Stack User Guide for the CC2420DB, CC2420DK User Manual, and CC2420DBK User Manual. The Z-Stack End User Distribution Package and documentation can be downloaded from Chipcon's ZigBee Developer Site. With this kit a user name and password is enclosed to access this site to enable download of the Z-Stack End User Distribution Package.

Please visit Chipcon ZigBee Developer Site regularly for updates to the documentation and software. Note that you will also receive a mail to the address you used when you registered on the developers site when updates are available.

Getting started

1. Go to the Chipcon ZigBee Developer Site and login with the enclosed user name and password, enter registration information the first time, then download and install the Z-Stack End User Distribution Package. The Z-Stack documentation is included in this package.
2. Read the document "ZigBee Implementers Guide" located by default at C:\Chipcon\CC-x.x.x.x.x\Z-Stack\Documentation
3. Follow the instructions in the document "Z-Stack User's Guide - CC2420DB" located by default at C:\Chipcon\CC-x.x.x.x.x\Z-Stack\Documentation to setup the development kit and build a sample application.

Note:

The CC2420 ZigBee DK is not shipped with a ZigBee Sample Profile application preprogrammed in the Atmega128L flash of the CC2420DBs.

Please use the provided power supply when using the AVR JTAG ICE mkII for programming of the CC2420DBs.

4. Install the Chipcon Packet Sniffer and restart your PC with the USB cable connected between the PC and CC2400EB, and apply power to the CC2400EB with one of the enclosed power supplies in the kit.
http://www.chipcon.com/index.cfm?kat_id=2&subkat_id=12&dok_id=115
5. Start the Packet Sniffer for the selected channel. Please refer to the Packet Sniffer User Manual on how to select a channel. Default channel for the sample applications is 11 (0x0B).
6. Run the sample ZigBee application build as described in the “Z-Stack User’s Guide – CC2420DB”

Note:

If you need to contact ZigBee support please follow the instructions provided on our ZigBee Developer Site.

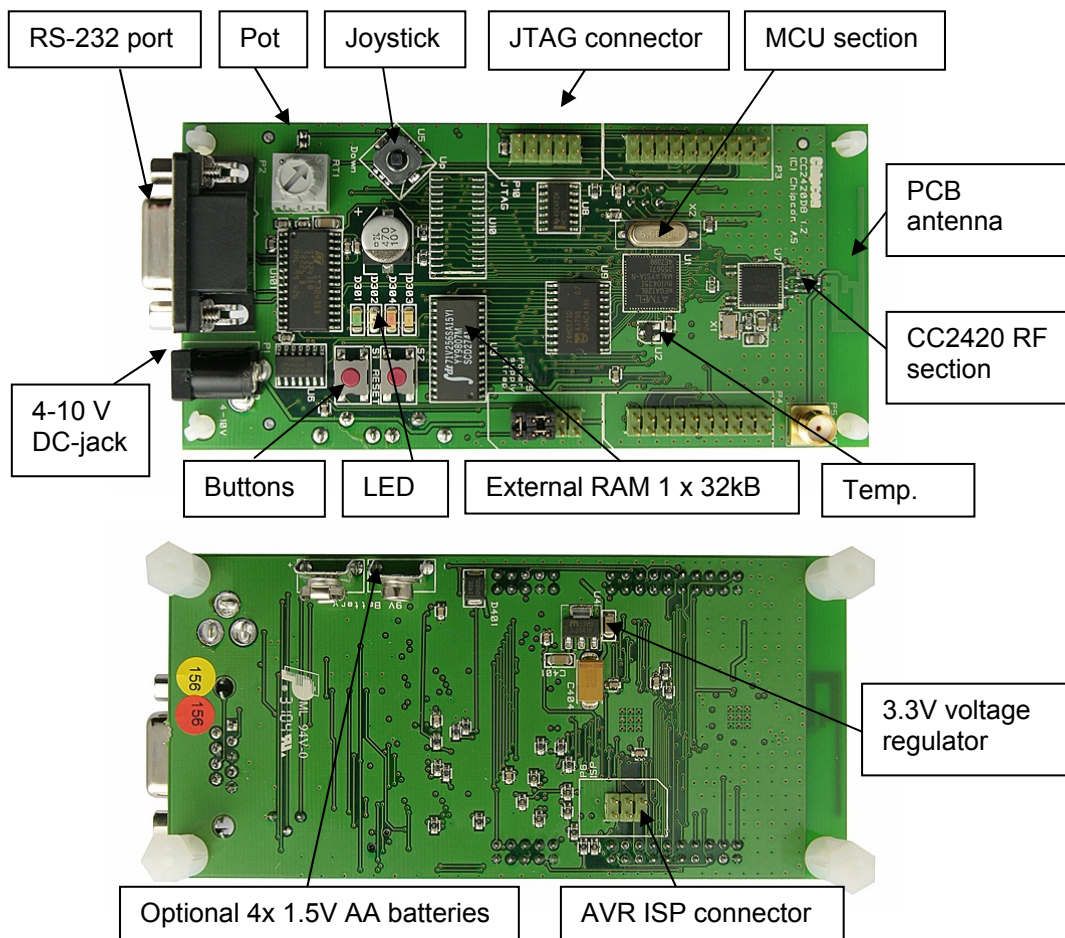


Figure 1: CC2420DB Demonstration Board

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