

Quick Start Instructions

Rev. 1.1

CC400DK Development Kit

Introduction

The CC400DK Development Kit is designed to make it very easy for the user to evaluate the transceiver's performance and in a short time develop his own applications.

The Development Kit includes two Evaluation Boards with a complete CC400 transceiver, voltage regulator and PC interface circuitry. Using the Evaluation Board connected to a PC running the SmartRF® Studio software, various system parameters can be changed and tested via software. The evaluation board includes a significant number of components for great flexibility. However, only a minor part of these components are required in an actual application. Check the datasheet for a typical application circuit.

Important:

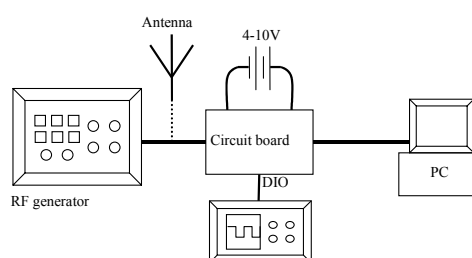
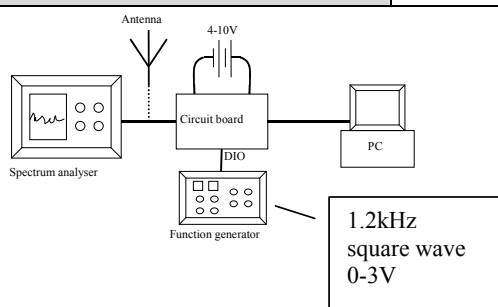
The use of radio transceivers is regulated by international and national rules. Before transmitting a RF signal out on the antenna, please contact your local telecommunication authorities to check if you are licensed to operate the transceiver.

Step-by-step

To get the Evaluation Board up and running follow these steps:

1. Connect the board to an external power supply. If you are using a 4-10V supply, connect it to the 4-10V and 0V terminals on the power connector. If you are using a 3V regulated supply, connect it to the 3V and 0V terminals. Set the voltage selector switch to the correct position.
2. If you are going to measure the current consumption of the CC400 IC, insert an amperemeter between the I_IN and I_OUT terminals on the power connector, otherwise make sure that a jumper is inserted between these terminals.
3. There are three preselector filter options: LC-filter, SAW filter, or no filter used. Each of the three filter alternatives is equipped with a female SMA antenna connector. To choose between the three filters there is a zero ohm resistor that can be moved (R61-R63).
4. Connect the parallel cable supplied between the Evaluation Board and the PC.
5. Start up the SmartRF® Studio software.
6. Recommended settings for the CC400DK are:

System parameter	Highest performance	Lowest cost
X-tal frequency	12.000000 MHz	12.000000 MHz
X-tal accuracy	10 ppm	50 ppm
RF frequency	433.920000 MHz	433.920000 MHz
IF stage	60 kHz	200 kHz
Frequency separation	20 kHz	40 kHz
Data rate	1.2 kbit/s	1.2 kbit/s
Power Amplifier class	Class B	Class B
RF output power	10 dBm	10 dBm
Receiver mode	Optimum sensitivity	Optimum sensitivity
LOCK indicator	Continuous	Continuous
VCO gain	000 (Maximum)	000 (Maximum)



The above figures show typical evaluation connections for TX (left) and RX (right). Note that the data signals to/from the CC400EB must be Manchester coded.

For details on how to use the SmartRF® Studio software please refer to the SmartRF® Studio User Manual.

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