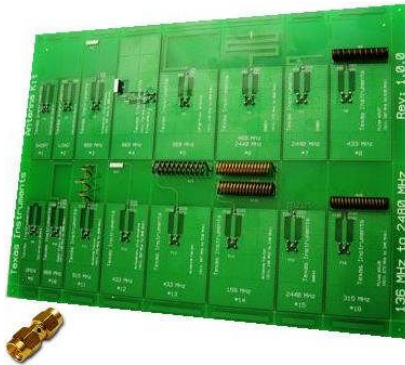


CC-Antenna-DK Quick Start Guide

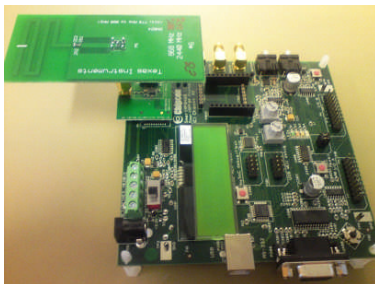
1. Kit Contents



1 x CC-ANTENNA-DK
 1 x SMA Male/Male Adapter
 Documentation

This guide will show how to connect the CC-Antenna-DK to any EM connected to the SmartRF04/05EB. It will also point to additional resources.

4. Connection to the SmartRF04/05EB



Antenna board #6 has been snapped out from the CC-Antenna-DK panel and is connected to an EM via the SMA Male/Male Adapter.

EM board with the antenna board #6 is then connected to the SmartRF04/05EB.

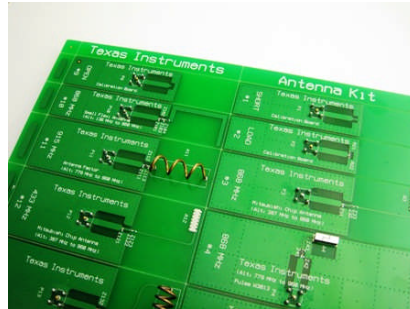
7. Stand-alone Antenna boards

The antenna board does not have to be connected to an EM board. This can be the case when the antenna performance shall be evaluated for a smaller GND size.



If the board is used as stand-alone then for the sub 1GHz boards; the matching network should be reviewed.

2. Snap a board from the panel

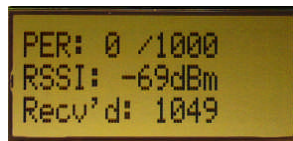


The CC-Antenna-DK contains 16 boards; 3 calibration boards and 13 antenna boards.

Each CC-Antenna-DK has been scribed (v-cut) so a specific board can easily be snapped out of the panel.

5. Packet Error Rate (PER)

When the antenna is connected then the Packet Error Rate test can be performed.



The exact format of the PER test will depend on the choice of EM and SmartRF04/05EB version.

A. More information

On Texas Instruments' Low-Power RF web site you will find all our latest products, application and design notes, FAQ section, news and events updates, and much more. Just go to www.ti.com/lprf

The Low Power RF Online Community has forums, blogs and videos. Use the forums to find information, discuss and get help with your design. Join us at www.ti.com/lprf-forum

The TI LPRF eNews letter keeps you up to date on e.g. new products, application notes, software and events. Sign up at www.ti.com/lprfnewsletter

We hope you that the CC-Antenna-DK will help with the choice of antenna for your final application.

3. Board Overview

| Nr. | Board Description | Freq. (MHz) |
|-----|-------------------------------|-------------|
| 1 | "SHORT" Calibration | - |
| 2 | "LOAD" Calibration | - |
| 3 | Mitsubishi Chip | 868 |
| 4 | Pulse Chip | 868 |
| 5 | Loaded Stud PCB (L) | 868 |
| 6 | Dual band Meander PCB Antenna | 868 & 2440 |
| 7 | Inverted F PCB | 2440 |
| 8 | Pulse Helical Wire | 433 |
| 9 | "OPEN" Calibration | - |
| 10 | Loaded Stud PCB (S) | 868 |
| 11 | Helical Wire | 915 |
| 12 | Mitsubishi Chip | 433 |
| 13 | Helical Wire | 433 |
| 14 | Helical Wire | 169 |
| 15 | Meander PCB | 2440 |
| 16 | Pulse Helical Wire | 315 |

All Low Power RF bands are covered by the antenna kit.

6. SmartRF Studio

After running the PER test, the next recommended step is to install SmartRF Studio and to connect the evaluation board to the PC.



When installing SmartRF Studio, you will also install the USB drivers required for the SmartRF05EB board.

SmartRF Studio can be used for RF testing and evaluation.

SmartRF Studio can be downloaded from www.ti.com/smartrfstudio

B. References

[1] **Tool and Software web page**
<http://focus.ti.com/analog/docs/toolsoftware.tsp?familyId=367&toolTypeId=1>

[2] **Low Power RF ICs web page**
http://focus.ti.com/paramsearch/docs/parametricsearch.tsp?family=analog&familyId=368&uiTemplateId=NODE_TRY_PAGE_T

[3] **LPRF Developer's Network**
<http://focus.ti.com/general/docs/gencontent.tsp?contentId=29028>

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