CY8CKIT-148-COIL INDUCTIVE SENSING COIL BREAKOUT BOARD QUICK START GUIDE

The CY8CKIT-148-COIL Inductive Sensing Coil Breakout Board is intended to be used with the CY8CKIT-148 PSoC® 4700S Inductive Sensing Evaluation Kit to showcase the inductive sensing capability of the PSoC® 4700S MCUs.

1) Visit the kit website to download and unzip the kit code examples, www.cypress.com/CY8CKIT-148-COIL.

2) Detach Metal Target 1 from the COIL board.

3) Connect the provided FPC cable to header J3 on the CY8CKIT-148-COIL board. Connect the other end of the FPC cable to header J6 on the CY8CKIT-148 kit.

4) Connect a USB cable from a PC to the CY8CKIT-148 kit.

5) Install the PSoC 4700S device and latest MagSense™ component using PSoC Creator. For more information, please refer to the kit guide.

6) Open the *CE225409 – PSoC 4700S MagSense COIL* code example in PSoC Creator. In the Workspace, right click the *6-SegmentSlider* project and choose **Set As Active Project**. Choose **Debug > Program**.

7) Slide the Metal Target 1 over SQ1-SQ6. Observe LED2 on the CY8CKIT-148 kit board change intensity.

Sensor Parameters			Recommended Component Configuration		
Sensor	Inductance (µH)	Resonant Frequency (kHz)	Lx Clock Frequency (kHz)	IDAC Value	Sub-Conversions
LE1, LE2	28.8	644	640	60	600
RE1, RE2	4.32	541	539	13	300
CR1, CR2	22.5	765.3	761.9	92	600
CR3, CR4	0.89 + 2.2*	633	625	12	500
CR5	113.9	325	315.79	31	300
SQ1-SQ6	7.0	636	615	21	624
SQ7, SQ8	65.2	437.0	466.02	56	585

* Additional inductor in series.

It is recommended to see **"Getting started with the Kit"** section of the Kit Guide for the first time use of the kit.

CY8CKIT-148-COIL Inductive Sensing Coil Breakout Board

J3

SQ1 - SQ6
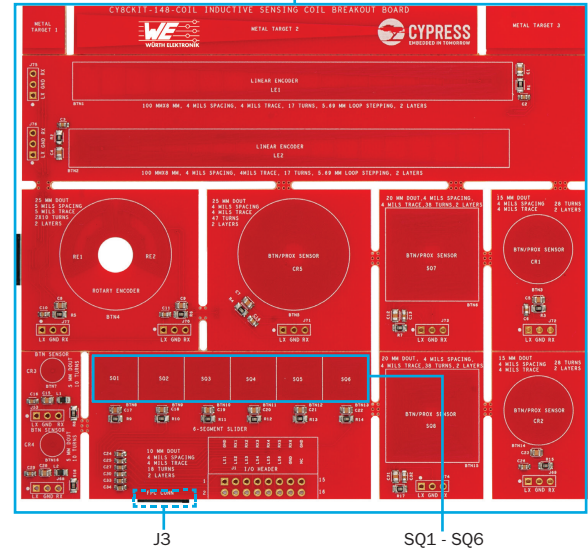
FPC cable

Rotary Target

For more information, please visit: **www.cypress.com/CY8CKIT-148-COIL**

RoHS compliant

WÜRTH ELEKTRONIK

CYPRESS
EMBEDDED IN TOMORROW

PSoC Rocks!

Contents under the label

PEEL
HERE