



Part Number: LP-EM-CC1312PSIP

and visit dev.ti.com

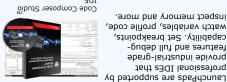
CCI317b2Ib

Meet the

Connect your LaunchPad to a computer

Juamqolava(

evaluate radio performance. A powerful application to SmartRF Studio



LaunchPads are supported by Professional Software tools

inspect memory and more.

capability. Set breakpoints, features and full debugprovide industrial-grade

professional IDEs that

www.ti.com/ccs

Software Tools

>>>ee them all @ ti.com/boosterpacks - 0-200kΩ potentiometer - Ultra-low-power operation - Reed switch - DCDC 3V to 5V converter - Analog Light Sensor - microSD card slot - Two cap touch buttons (LS013B7DH03) Ultra low power accelerometer 1.28 128 x 128 pixel LCD Flow meter measurements BoosterPack BoosterPack LCD and microSD card SimpleLink ULP Sense Sharp 128x128 Memory

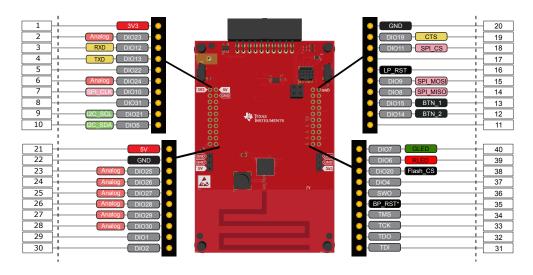
BoosterPack Ecosystem

The BoosterPack™ connector

SPAZ037

INSTRUMENTS

The pinout to connect BoosterPack accessories (available separately) are shown below.



UART (RXD, TXD), Reset (LP_RST) and JTAG (TMS, TCK, TDO and TDI) are also present in the LP-EM Debug Connector. Power (GND, 3V3 and 5V) is also provided.

XDS110 EnergyTrace™ Technology

The LP-EM-CC1312PSIP is compatible with the EnergyTrace technology.

EnergyTrace implements a new method for measuring MCU current consumption. It uses a DC-DC solution to measure the time density of charge pulses, allowing accuracy on ultra low power measurements. Its high dynamic range (700 nA to 400 mA) and fast sampling rate (256 kSPS) captures the complete operational profile of the wireless MCU.

EnergyTrace Profile

EnergyTrace Profile runtime and energy data for low power modes along with each function run during Active Mode.

Graphical Power Data in Code Composer Studio

These two tabs of the EnergyTrace Technology window show a graph over time of power and energy.

> Find more information at ti.com/EnergyTrace

A closer look at your new LaunchPad Development Kit

Featured microcontroller: CC1312PSIP

This LaunchPad is great for...

- Battery-operated wireless applications operating in the Sub-1GHz ISM RF bands (868MHz and 915MHz)
- Add RF capabilities to your product using one of the supported protocols: IEEE 802.15.4g, Wi-SUN®, Wireless M-Bus, MIOTY® and proprietary protocols

What comes in the box? LP-EM-CC1312PSIP LaunchPad This Ouick 10-pin 2-wire Start Guide Debug Cable Power Cable CC1312PSIP Microcontroller - Four 32-bit or eight x 16-bit timers - 48 MHz CPU - 352kB Flash, 80 kB RAM - ADC with 8 channel, 12 bits and 200 ksamples/s - Programmable radio supporting - DAC with 8 bits various protocols and up to +20 dBm - Serial communications: UART, SPI, I2C at 868MHz and 915MHz - Two comparators Low power consumption

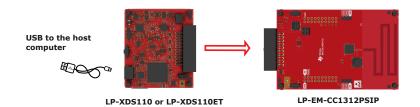
Hardware setup

What do you need?

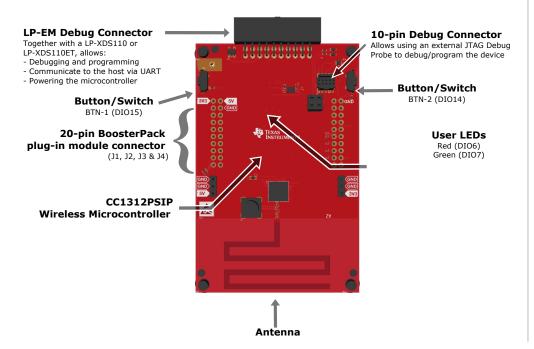
To use your new LaunchPad, you need to connect an external Debug Probe to either the 20-pin LP-EM Debug connector on the edge of the board or to the 10-pin Debug connector and supply power separately.

Option 1: Using the LP-EM Debug Connector

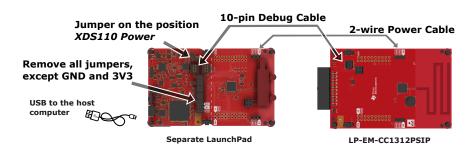
This is the easiest way to setup the hardware. It requires either an LP-XDS110 or



LP-EM-CC1312PSIP Overview



Option 2: Using the 10-pin debug connector



For additional details, consult dev.ti.com/LP-EM-CC1312PSIP

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