*EVM User's Guide: BP-CC33-BBB-ADAPT*

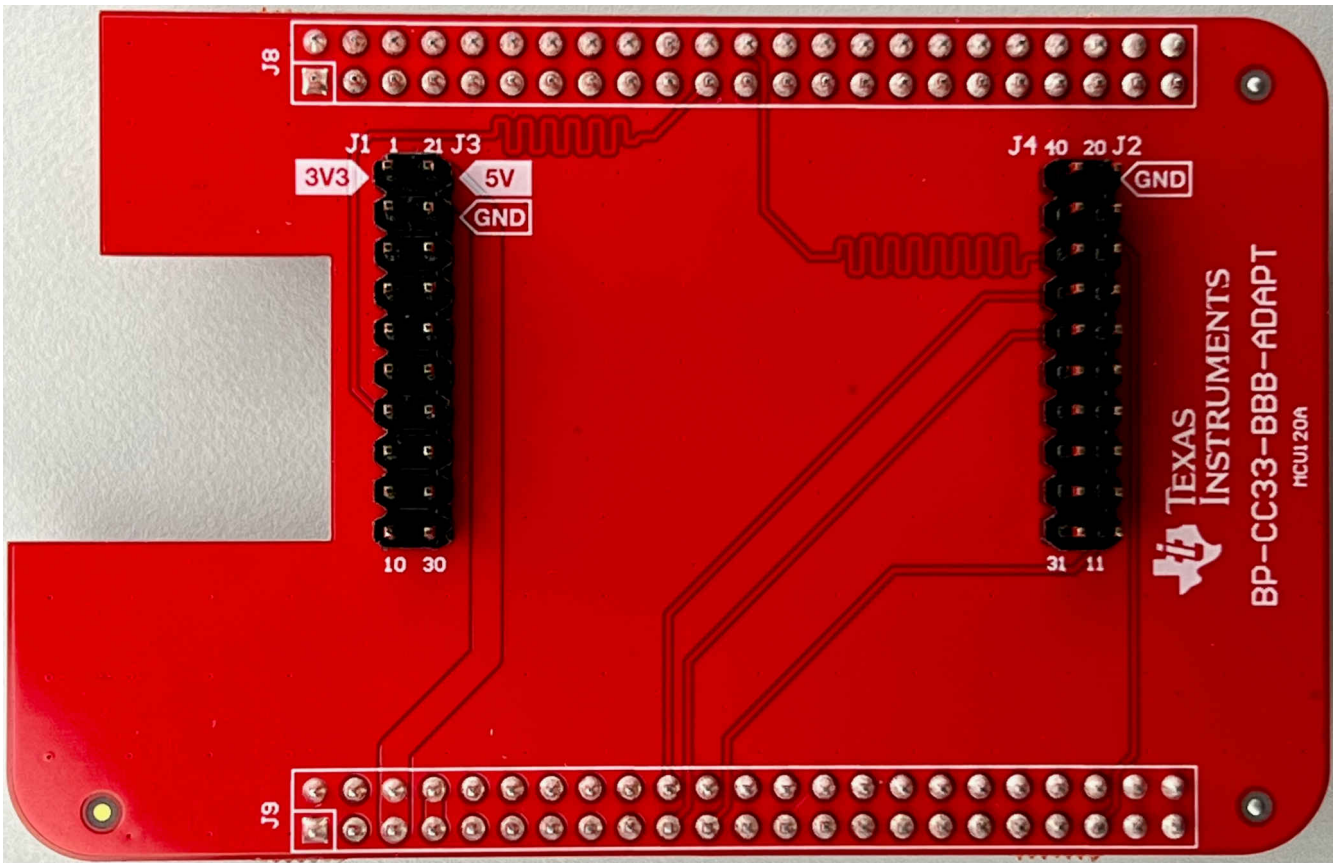
# *BP-CC33-BBB-ADAPT Hardware*

## Description

The BP-CC33-BBB-ADAPT board is an adapter board to interface between a SimpleLink™™ CC3301 Wi-Fi 6 and Bluetooth®® Low Energy BoosterPack™ plug-in module and the BeagleBone™ Black development platform. The connection to the BeagleBone Black platform allows for processor and Linux evaluation for the CC33xx devices.

## Features

- Easily connect BP-CC33xx EVMs to the BeagleBone Black development platform
- Layout designed for optimal signal integrity for digital signals
- Header topology provides component clearance when fully assembled



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# 1 Evaluation Module Overview

## 1.1 Introduction

The BP-CC33-BBB-ADAPT provides an interface between BP-CC33xx EVMs and the BeagleBone® Black development platform. This adapter board handles high-speed SDIO communication and provides improved EMC performance for the wireless radio. When fully interconnected, this board enables seamless evaluation with a host MPU and Linux® operating system.

This user's guide provides details on the BP-CC33-BBB-ADAPT hardware and kitting. For more information on the evaluation set-up, please see also the SimpleLink™ CC3301 Wi-Fi 6 and Bluetooth® Low Energy BoosterPack™ plug-in module User's Guide (SWAU130).

## 1.2 Kit Contents

- BP-CC33-BBB-ADAPT PCB

# 2 Hardware

## 2.1 Additional Images

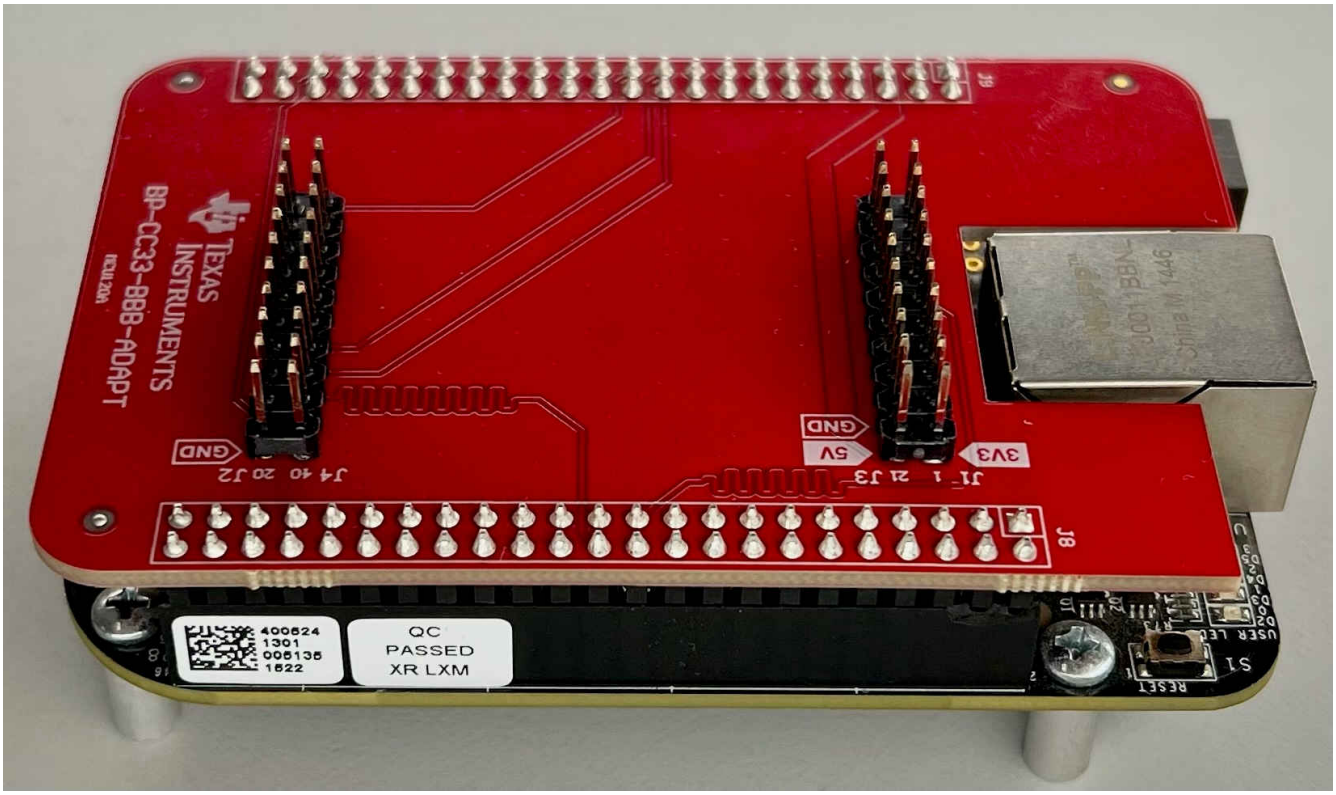


**Figure 2-1. BeagleBone Black Connection**

## 2.2 Header Information

The BP-CC33-BBB-ADAPT adapter board provides two sets of headers. J8 and J9 are 46-pin headers to enable connection to the BeagleBone Black development platform. P1 and P2 are 20-pin headers to enable connection to the SimpleLink CC33xx Wi-Fi 6 and Bluetooth Low Energy BoosterPack plug-in module.



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# 3 Hardware Design Files

## 3.1 Schematics

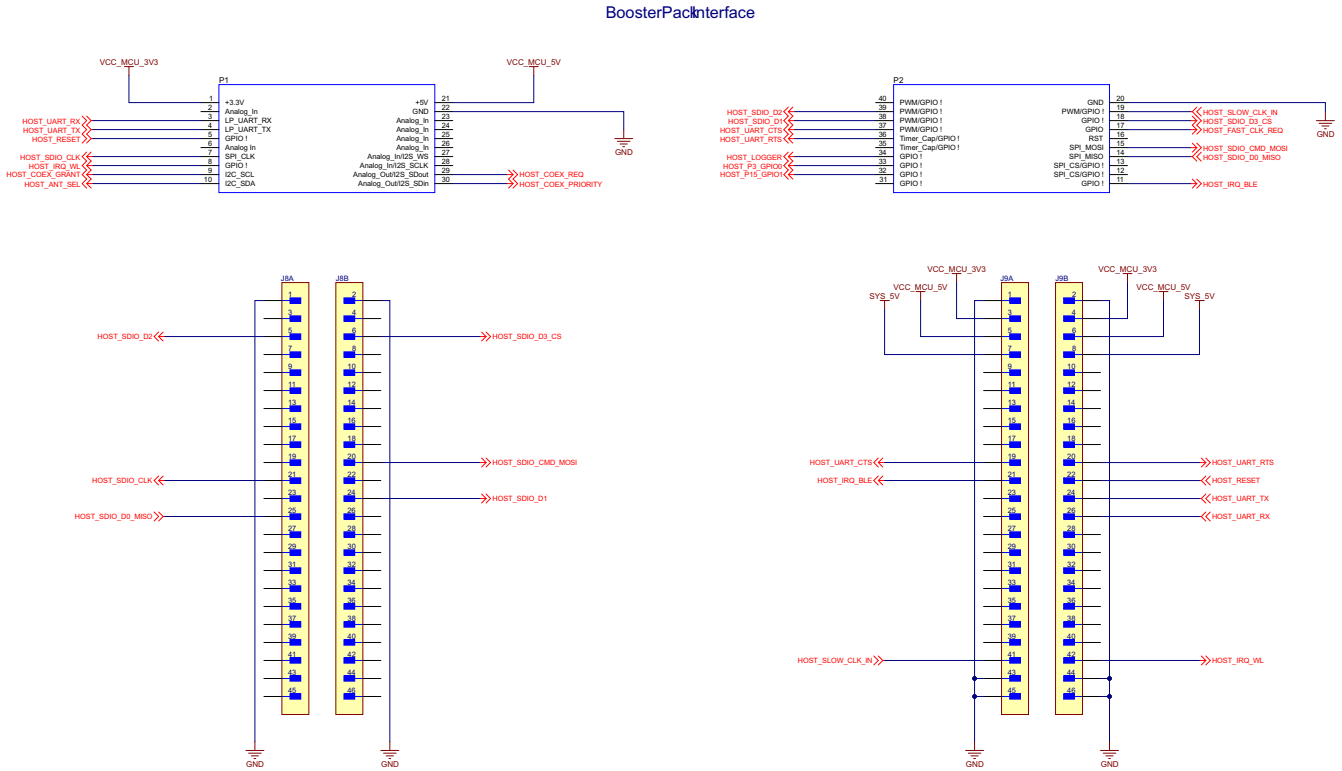


**Figure 3-1. BP-CC33-BBB-ADAPT Schematic**



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## 3.2 PCB Layouts

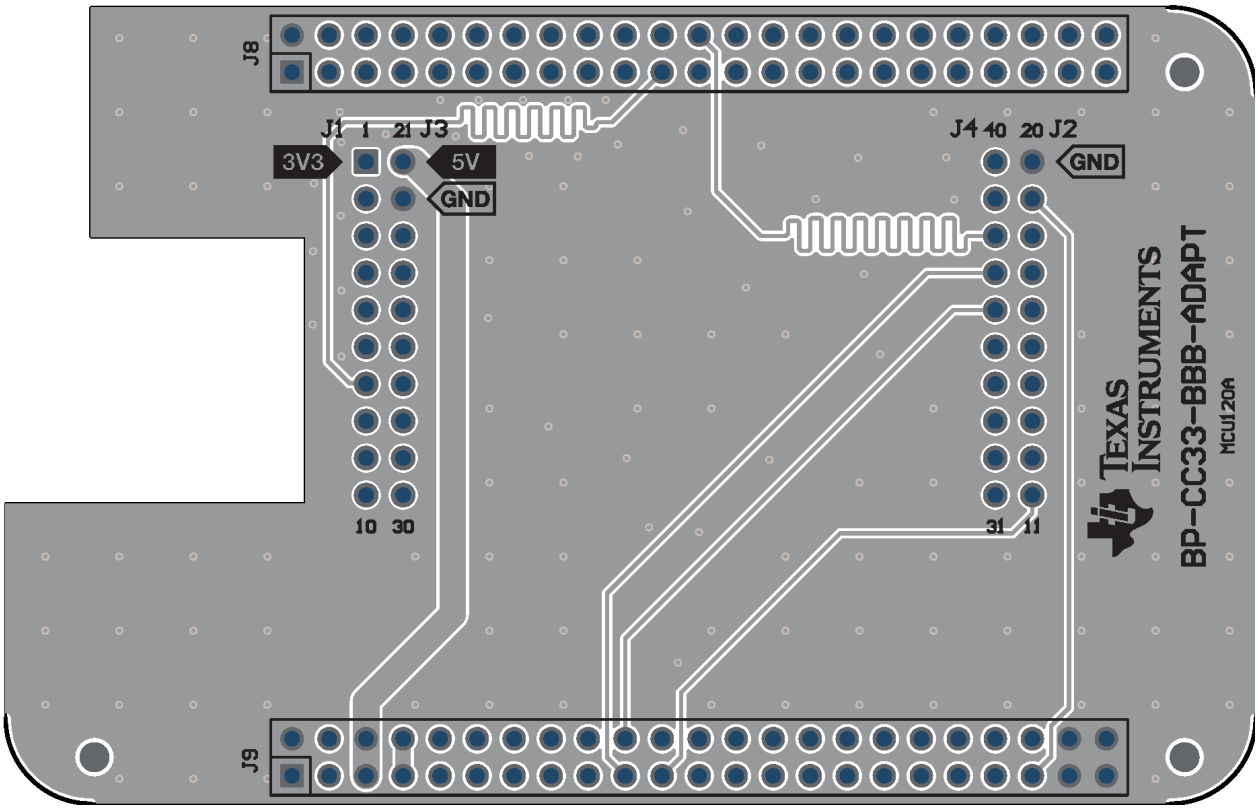


**Figure 3-2. Top Side Layer Plot**

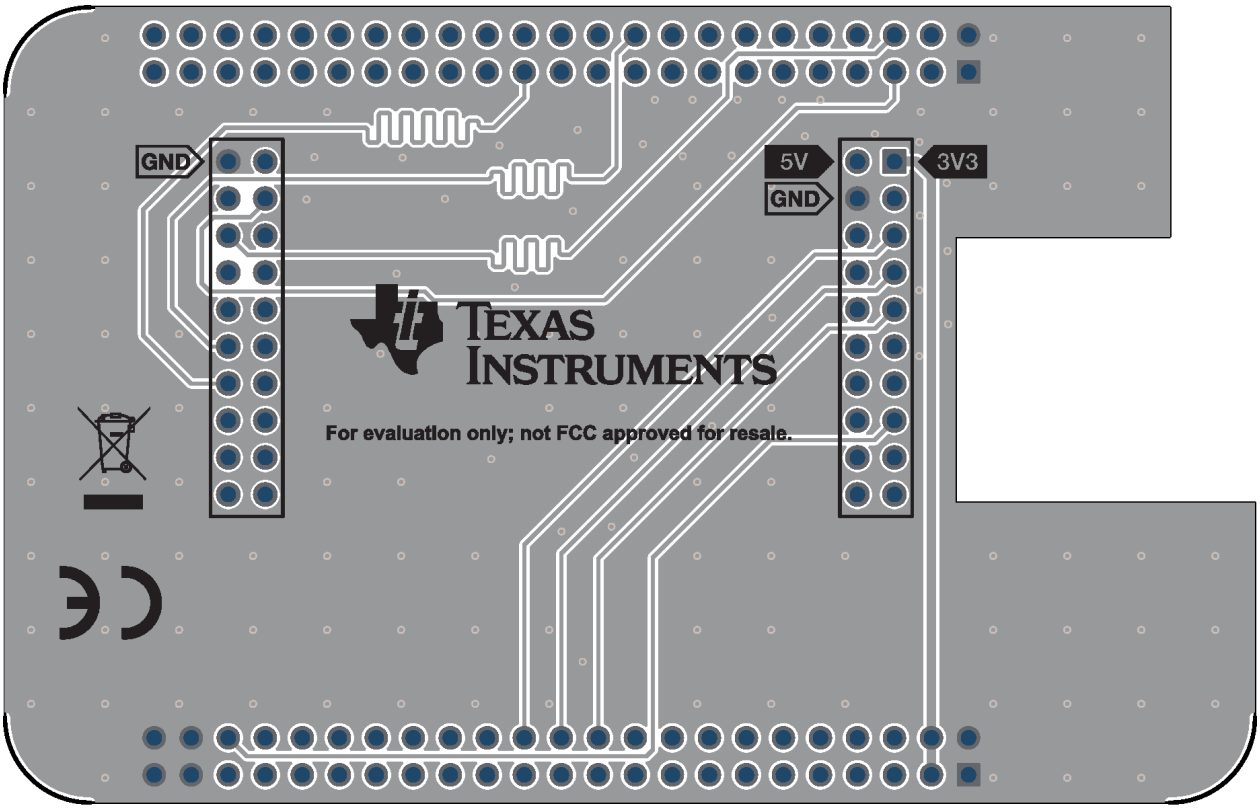


**Figure 3-3. Bottom Side Layer Plot**



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### 3.3 Bill of Materials (BOM)

**Table 3-1. Bill of Materials**

| Designator | Quantity | Value | Description | Package Reference | Part Number | Manufacturer |
|---|---|---|---|---|---|---|
| J8, J9 | 2 | | CONN HEADER VERT 46POS 2.54MM | Header, 2.54mm, 23x2, TH | PRPC023DAAN-RC | Sullins Connector Solutions |
| P1, P2 | 2 | | CONN HEADER VERT 20POS 2.54MM | Header, 2.54mm, 10x2, TH | PH2-20-UA | Adam Tech |

## 4 Compliance Information

### 4.1 Compliance and Certifications

The BP-CC33-BBB-ADAPT is compliant with REACH, RoHS, WEEE, and CE.

## 5 Related Documentation

### 5.1 Supplemental Content

SimpleLink™ CC3301 Wi-Fi 6 and Bluetooth® Low Energy BoosterPack™ Plug-in Module (BP-CC3301)


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