Application Note

Hardware Migration to CC1312R7 and CC1352P7

ABSTRACT

This application report describes the required hardware changes when moving from a CC13xx device to the CC1312R7 and CC1352P7 SimpleLink™ wireless MCUs.

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1 Migrating from CC1310 to CC1312R7

For migration of the CC1310 device to the CC1312R device, please see the Hardware Migration From CC1310 to CC1312R. The CC1312R7 device is a memory upgrade of the CC1312R device. The CC1312R7 device has 144 kB of RAM and 704 kB of flash. The two devices are pin to pin compatible and a PCB design made for the CC1312R device can be reused for the CC1312R7 device. It should be noted that for applications requiring a slow clock accuracy of < ±600 PPM (such as BLE applications), an external 32KHz slow clock is required for use with the CC1312R7 device. The only other update to the Build-of-Material (BOM) required is the Wireless MCU.

2 Migrating from CC1312R to CC1312R7

The CC1312R7 device is a memory upgrade of the CC1312R device. The CC1312R7 device has 144 kB of RAM and 704 kB of flash. The two devices are pin to pin compatible and a PCB design made for the CC1312R device can be reused for the CC1312R7 device. It should be noted that for applications requiring a slow clock accuracy of < ±600 PPM (such as BLE applications), an external 32KHz slow clock is required for use with the CC1312R7 device. The only other update to the Build-of-Material (BOM) required is the Wireless MCU.

3 Migrating from CC1352P to CC1352P7

The CC1352P7 device is a memory upgrade of the CC1352P device. The CC1352P7 device has 144 kB of RAM and 704 kB of flash. The two devices are pin to pin compatible and a PCB design made for the CC1352P device can be reused for the CC1352P7 device. It should be noted that for applications requiring a slow clock accuracy of < ±600 PPM (such as BLE applications), an external 32KHz slow clock is required for use with the CC1352P7 device. The only other update to the Build-of-Material (BOM) required is the Wireless MCU.

4 Regulatory Compliance Considerations

Radio certification of the customer's application and end equipment is the customer's responsibility. The customer is solely responsible for the design, validation, and testing of its applications as well as for compliance with all legal and regulatory requirements concerning its applications. Industry best practices generally require that the customer conducts qualification tests on actual applications considering possible environmental and other conditions that the customer's application may encounter. TI recommends consulting with an accredited test house if in doubt on regulatory matters.

5 Summary

As summarized in this migration guide, there are minimal or no hardware changes required when migrating to the CC1312R7 and CC1352P7 devices. Please see SmartRF™ Studio for the latest characterization settings.

6 References

- CC1312R7 Datasheet
- CC1352P7 Datasheet
- LP-CC1312R7 Launchpad Design Files
- LP-CC1352P7 Launchpad Design Files

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