Application Note

Hardware Migration to CC2651R3 and CC2651P3

ABSTRACT

This application report describes the required hardware changes when moving from a CC26xx device to the CC2651R3 and CC2651P3 SimpleLink™ wireless MCUs.

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Trademarks

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1 Migrating from CC26x0 to CC2651R3

For the migration of CC26x0 to CC26x2R please read Hardware Migration From CC26x0 to CC26x2R. The CC2651R3 is a downscaled version of CC652R with 32 kB of RAM, 352 kB of flash, and a cortex M4. The two devices are pin to pin compatible in the RGZ package and a PCB design made for the CC26x0 can be reused for the CC2651R3 with required BOM changes. The CC2651R3 in 5x5 the RKP package is not compatible with the CC2640 5x5 RHB package.

2 Migrating from CC26x2R/CC2652R7 to CC2651R3

The CC2651R3 is a downscaled version of CC26x2R/CC2652R7 with 32 kB of RAM and 352 kB of flash and a cortex M4. The two devices are pin to pin compatible and a PCB design made for the CC26x2R can be reused for the CC2651R3. The only BOM update required is updating the wireless MCU used.

3 Migrating from CC1352P/CC1352P7 to CC1311P3

The CC2651P3 is a downscaled version of CC2652P/CC2652P7 with 32 kB of RAM and 352 kB of flash and a cortex M4. A PCB design made for the CC2652P can be reused for the CC2651P3.

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 CC2651R3 and CC2651P3 devices. Please see SmartRF™ Studio for the latest characterization settings.

6 References

- CC2651R3 Datasheet
- CC2651P3 Datasheet
- LP-CC2652R7 Launchpad Design Files
- LP-CC2651P3 Launchpad Design Files

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