

CC256x Getting Started Guide

The CC256x family of devices from Texas Instruments™ allows different options for dual-mode *Bluetooth*® and Bluetooth low-energy (BLE) solutions designed to meet your needs. These solutions are reliable, easy to use, and allow flexibility to choose from a number of application processors with a royalty-free stack. TI provides continued long-term support with online forums and technical documentation for the CC256x family.

Contents

1	Select the Device or Module	3
2	Device Information	4
2.1	CC2564C	4
2.2	CC2564MODA	4
2.3	CC2564MODN	5
2.4	CC2564	5
2.5	CC2560	5
3	Processor Information	6
3.1	MSP430™ Microcontrollers	6
3.2	SimpleLink™ MSP432™ Arm® Cortex®-M4F MCU.....	6
3.3	Sitara™ Processors	7
3.4	Tiva™ Arm® MCUs	8
3.5	Non-TI (Including STM32® F4) Processor	8
4	Selection Guide for CC2564C.....	9
4.1	Use CC2564C With the MSP430™ MCU	9
4.2	Use CC2564C With the MSP432™ MCU	9
4.3	Use CC2564C With the Sitara™ AM335x, AM437x, AM57x Processors.....	10
4.4	Use CC2564C With the Tiva™ Arm® MCU	10
4.5	Use CC2564C With a Non-TI Processor	11
5	Selection Guide for CC2564MODA	12
5.1	Use CC2564MODA With MSP430™ MCU	12
5.2	Use CC2564MODA With MSP432™ MCU	13
5.3	Use CC2564MODA With the Sitara™ AM335x, AM437x, AM57x Processors	14
5.4	Use CC2564MODA With the Tiva™ Arm® MCU	15
5.5	Use CC2564MODA With a Non-TI Processor.....	16
6	Selection Guide for CC2564MODN	17
6.1	Use CC2564MODN With the MSP430™ MCU	17
6.2	Use CC2564MODN With the MSP432™ MCU	18
6.3	Use CC2564MODN With the Sitara™ AM335x, AM437x, AM57x Processors	19
6.4	Use CC2564MODN With the Tiva™ Arm® MCU	20
6.5	Use CC2564MODN With a Non-TI Processor.....	21
7	Selection Guide for CC2564	22
7.1	Use CC2564 With the MSP430™ MCU.....	22
7.2	Use CC2564 With the MSP432™ MCU.....	23
7.3	Use CC2564 With the Sitara™ AM335x, AM437x, AM57x Processors.....	24
7.4	Use CC2564 With the Tiva™ Arm® MCU	25
7.5	Use CC2564 With a Non-TI Processor.....	26
8	Selection Guide for CC2560	27
8.1	Use CC2560 With the MSP430™ MCU.....	27
8.2	Use CC2560 With MSP432™ MCU	28

8.3	Use CC2560 With the Sitara™ AM335x, AM437x, AM57x Processors.....	29
8.4	Use CC2560 With the Tiva™ Arm® MCU	30
8.5	Use CC2560 With a Non-TI Processor.....	31
9	Additional Documentation Support.....	32

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1 Select the Device or Module

[Table 1](#) lists the device and module options.

Table 1. Device and Module Information

Property	Devices and Modules				
	 CC2564C	 CC2564MODA	 CC2564MODN	 CC2564	 CC2560
Bluetooth BR-EDR	✓	✓	✓	✓	✓
Bluetooth low energy	✓	✓	✓	✓	—
Module or IC	IC	Module	Module	IC	IC
FCC, IC, CE certification	—	✓	✓	—	—
Bluetooth certification	4.2	4.1	4.1	4.1	4.1
Internal antenna	—	✓	—	—	—

2 Device Information

For more information about the CC256x devices, see the [CC256x](#) wiki page.

Ask questions and solve problems with fellow engineers on the [TI E2E™ Bluetooth® support forum](#).

The following blog is applicable to the devices in the CC256x family:

[Three reasons why our dual-mode Bluetooth stack is your new go-to software solution](#)

2.1 CC2564C

For detailed information, see the [CC2564C product folder page](#).

The following blog is applicable to the CC2564C device:

[Introducing TI's dual-mode Bluetooth® 4.2 CC2564C solution](#)

2.1.1 Certifications

Hardware: [Declaration ID D032801](#), [QD ID 87924](#)

Host software:

- [Declaration ID D032797](#), [QD ID 85355](#)
- [Declaration ID D025552](#), [QD ID 69886](#)

2.2 CC2564MODA

For detailed information, see the [CC2564MODA product folder page](#).

The following blogs are applicable to the CC2564MODA device:

- [The dual-mode Bluetooth® module you've been waiting for is here](#)
- [Maximize your IoT design with new dual-mode Bluetooth® + MSP432™ MCU bundle](#)
- [Driving industrial markets with TI's dual-mode Bluetooth® module](#)

2.2.1 Certifications

Hardware: [Declaration ID D024698](#), [QD ID 64631](#)

Host software:

- [Declaration ID D025551](#), [QD ID 69887](#)
- [Declaration ID D025552](#), [QD ID 69886](#)

The CC2564MODA (integrated antenna) device is FCC, IC, and CE certified to allow fast time to market and minimal RF expertise. Learn how to transfer this certification to your device (see the [CC256x FCC, IC, and CE Certification Guide](#) wiki page).

2.3 CC2564MODN

For detailed information, see the [CC2564MODN product folder page](#).

2.3.1 Certifications

Hardware: [Declaration ID D022476](#), [QD ID 55257](#)

Host software:

- [Declaration ID D025551](#), [QD ID 69887](#)
- [Declaration ID D025552](#), [QD ID 69886](#)

The CC2564MODN (external antenna) device is FCC, IC, and CE certified to allow fast time to market and minimal RF expertise. Learn how to transfer this certification to your device (see the [CC256x FCC, IC, and CE Certification Guide](#) wiki page).

2.4 CC2564

For detailed information, see the [CC2564 product folder page](#).

2.4.1 Certifications

Hardware: [Declaration ID D022263](#), [QD ID 54666](#)

Host software:

- [Declaration ID D025551](#), [QD ID 69887](#)
- [Declaration ID D025552](#), [QD ID 69886](#)

2.4.2 Reference Design for CC2564

Low Noise and Small Form Factor Power Management Reference Design for CC256X Bluetooth® Controller — The TIDA-00598 reference design features a low noise and size optimized power management solution that regulates 5 V to 3.3 V and 1.8 V required to operate the CC256x Bluetooth controller. These regulated voltage rails can also be used to power other components in the system as microcontroller, level shifters, and sensors.

2.5 CC2560

For detailed information, see the [CC2560 product folder page](#).

2.5.1 Certifications

Hardware: [Declaration ID D022263](#), [QD ID 54666](#)

Host software:

- [Declaration ID D025551](#), [QD ID 69887](#)
- [Declaration ID D025552](#), [QD ID 69886](#)

2.5.2 Reference Design for CC2560

Low Noise and Small Form Factor Power Management Reference Design for CC256X Bluetooth® Controller — The TIDA-00598 reference design features a low noise and size optimized power management solution that regulates the 5 V to 3.3 V and 1.8 V required to operate the CC256x Bluetooth controller. These regulated voltage rails can also be used to power other components in the system as microcontroller, level shifters, and sensors.

3 Processor Information

The following subsections present the processors that are supported.

3.1 MSP430™ Microcontrollers

Features for the MSP430™ microcontroller (MCU) follow:

- Ultra-low-power microcontrollers family, optimized to achieve extended battery life in portable measurement applications
- Advancing MCU technology with new integrated peripherals:
 - [CapTIvate™](#) technology
 - [Smart analog combo](#)
 - [Low-energy accelerator \(LEA\)](#)
 - [And more](#)
- Broadest MCU portfolio with non-volatile [FRAM memory](#), enabling faster writes, lower power consumption and better reliability than flash
- Thousands of software libraries, online training, code examples, and application notes to simplify developing across the ecosystem
- To learn more, see [MSP430™ Ultra-Low-Power Microcontrollers](#) and get started today with the [LaunchPad™](#) development platform.

3.1.1 Reference Designs for MSP430™ MCU

Bluetooth® and MSP430™ Audio Sink Reference Design — TI's Bluetooth + MSP430 Audio sink reference design can be used by customers to create a variety of applications for low end, low power audio solutions. Some application possibilities are toys, low end bluetooth speakers, and audio streaming accessories. This reference design is a cost effective audio implementation and with full design files provided allows you to focus your efforts on application and end product development. Software supported on this reference design includes the TI Bluetooth Stack.

Bluetooth® and MSP430™ Audio Source Reference Design Board — The Bluetooth and low-power MSP microcontroller Audio Source reference design can be used by customers to create a variety of applications for low-end, low-power audio source solutions for applications including toys, projectors, smart remotes, and any audio streaming accessories. This reference design is a cost-effective audio implementation and with full design files provided allows you to focus your efforts on application and end product development. This reference design also provides the TI Bluetooth Stack.

3.2 SimpleLink™ MSP432™ Arm® Cortex®-M4F MCU

Features for the SimpleLink™ MSP432™ Arm® Cortex®-M4F MCU follow:

- High precision 1 MSPS SAR ADC with up to 16 bits of resolution
- 48-MHz Arm Cortex-M4 with floating point unit
- Ultra-low-power of 80 μ A/MHz
- IP protection to secure multiple firmware
- To learn more, see [TI SimpleLink™ MSP432™ Microcontrollers](#).

3.3 Sitara™ Processors

For an overview of the Sitara™ processors available from TI, see [Sitara™ Processors](#).

3.3.1 Sitara™ AM335x Processors

Features for the Sitara AM335x processors follow:

- Scalable Arm® Cortex®-A8 based core from 300 MHz up to 1 GHz
- 3D graphics option for enhanced user interface
- Dual-core PRU-ICSS for industrial Ethernet protocols and position feedback control
- Secure-boot option
- To learn more, see [Sitara™ AM335x Processors](#).

3.3.2 Sitara™ AM437x Processors

Features for the Sitara™ AM437x processors follow:

- Scalable Arm® Cortex®-A9 based core from 300 MHz up to 1 GHz
- 3D graphics option for enhanced user interface
- Quad-core PRU-ICSS for industrial Ethernet protocols and position feedback control
- Dual-camera support for barcode scanning, preview and still pictures
- Secure-boot option
- To learn more, see [Sitara™ AM437x Processors](#).

3.3.3 Sitara™ AM57x Processors

Features for the Sitara™ AM57x processors follow:

- Scalable single/dual Arm® Cortex®-A15 and C66x processor family
- 1080p HD video acceleration
- Dual 3D graphics and single 2D graphics options for enhanced user interface
- Quad core PRU and dual Arm® Cortex®-M4 core for real-time, deterministic control
- ICSS for industrial communications and high speed peripherals such as PCIe, USB 3.0, SATA and Gb Ethernet
- Secure-boot option
- To learn more, see [Sitara™ AM57x Processors](#).

3.4 Tiva™ Arm® MCUs

Features for the Tiva™ Arm® Processors follow:

- TM4C129x MCUs
 - Arm® Cortex®-M4F based MCUs
 - Integrated Ethernet MAC + PHY
 - 120-MHz CPU
 - On-chip data protection and an LCD controller
- TM4C123x MCUs
 - Arm Cortex-M4F CPU with single-precision floating-point core
 - USB OTG, and two CAN controllers
 - 80-MHz CPU
 - High-performance analog-to-digital converters
 - Low-power modes that consume as little 1.6 μ A, with up to 40 PWM outputs
- To learn more, see [TM4C12x Arm® Cortex®-M4F Core-Based Microcontrollers](#).

3.5 Non-TI (Including STM32® F4) Processor

There are options for using the CC2564x devices with non-TI processors:

- TI offers flexibility to attach most Arm processors running Linux® OS.
- TI offers a royalty-free stack for the STM32® F4 processor series (noOS and FreeRTOS).
- The stack can be ported to other Arm® Cortex®-M3 and Arm® Cortex®-M4 based processors. For more information, refer to the API documentation and porting guidelines included in the stack SDK.

4 Selection Guide for CC2564C

4.1 Use CC2564C With the MSP430™ MCU

Use of the CC2564C device with the [MSP430™ Ultra-Low-Power Microcontrollers](#) is not currently available.

For more details, see the [TI E2E Community Bluetooth® support forum](#). For further assistance, contact TI support or a TI sales representative.

4.2 Use CC2564C With the MSP432™ MCU

See the information in this section for using the CC2564C device with the [TI SimpleLink MSP432™ Microcontrollers](#).

4.2.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564C device:
 - CC2564C Dual-Mode Bluetooth Controller Evaluation Module, [CC256XCQFN-EM](#)
- Application processor platform:
 - SimpleLink MSP432P401R LaunchPad Development Kit, [MSP-EXP432P401R](#)
- Adapters required:
 - EM Adapter BoosterPack™ Plug-in Module, [BOOST-CCEMADAPTER](#)
- For audio/voice applications that use A3DP, HFP, or HSP:
 - SimpleLink Wi-Fi® CC3200 Audio BoosterPack, [CC3200AUDBOOST](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

4.2.2 Software

Build your Bluetooth use case and application with free software:

[CC2564C TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs \(noOS\)](#)

The Apple MFi iPod® Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple® MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

4.2.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564C Dual-Mode Bluetooth® Controller](#)
- Bulletin: [TI Bluetooth® CC2564C Solution](#)
- Technical guides and user's guides:
 - [CC2564C TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs](#)
 - [CC256xCQFN-EM User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564CQFN-EM Evaluation Board](#)
 - [EM Adapter BoosterPack User's Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit](#)
- Other documents and links:
 - [CC2564B to CC2564C Migration Guide](#)
 - [Application Notes for CC2564C Bluetooth® 4.1 and 4.2](#)
 - [QFN/SON PCB Attachment Application Report](#)

4.3 Use CC2564C With the Sitara™ AM335x, AM437x, AM57x Processors

See the information in this section for using the CC2564C device with the [AM335x Processors](#), [AM437x Processors](#), or the [AM57x Processors](#).

4.3.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564C device:
 - CC2564C Dual-Mode Bluetooth Controller Evaluation Module, [CC256XCQFN-EM](#)
- Application processor platforms:
 - For AM335x, use the AM335x Evaluation Module, [TMDXEVM3358](#).
 - For AM437x, use the AM437x Evaluation Module, [TMDXEVM437x](#).
 - For AM57x, use the AM572x Evaluation Module, [TMDSEVM572X](#).
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

4.3.2 Software

Build your Bluetooth use case and application with free software:

[TI Bluetooth 4.2 Stack Add-On for Linux Platforms With WL183x and CC2564C](#) (Linux)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

4.3.3 Technical Documentation

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- Data sheet: [CC2564C Dual-Mode Bluetooth® Controller](#)
- Bulletin: [TI Bluetooth® CC2564C Solution](#)
- Technical guides and user's guides:
 - [CC256xCQFN-EM User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564CQFN-EM Evaluation Board](#)
- Other documents and links:
 - [Bluetopia® Platform Manager Getting Started Guide](#) wiki page
 - [CC2564B to CC2564C Migration Guide](#)
 - [Application Notes for CC2564C Bluetooth® 4.1 and 4.2](#)
 - [QFN/SON PCB Attachment Application Report](#)

4.4 Use CC2564C With the Tiva™ Arm® MCU

See the information in this section for using the CC2564C device with the Tiva [TM4C12x Arm® Cortex®-M4F Core-Based Microcontrollers](#) is not currently available.

For more details, see the [TI E2E Community Dual-Mode Bluetooth® Forum](#). For further assistance, contact TI support or a TI sales representative.

4.5 Use CC2564C With a Non-TI Processor

See the information in this section for using the CC2564C device with a non-TI processor.

4.5.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564C device:
 - CC2564C Dual-Mode Bluetooth Controller Evaluation Module, [CC256XCQFN-EM](#)
- Application processor platforms:
 - Works with platforms like STM3240G EVAL
- Adapter:
 - CC256XEM-STADAPT (see the [TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) product folder)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

4.5.2 Software

For the STM32 F4 processor, build your Bluetooth use case and application with free software to get started:

[CC2564C TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) (noOS and FreeRTOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

4.5.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564C Dual-Mode Bluetooth® Controller](#)
- Bulletin: [TI Bluetooth® CC2564C Solution](#)
- Technical guides and user's guides:
 - [CC2564C TI Dual-Mode Bluetooth® Stack on STM32F4 MCUs](#)
 - [CC256xCQFN-EM User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564CQFN-EM Evaluation Board](#)
 - [CC256xEM Bluetooth® Adapter Kit](#)
 - [EM Adapter BoosterPack User's Guide](#)
- Other documents and links:
 - [CC2564B to CC2564C Migration Guide](#)
 - [Application Notes for CC2564C Bluetooth® 4.1 and 4.2](#)
 - [QFN/SON PCB Attachment Application Report](#)

5 Selection Guide for CC2564MODA

5.1 Use CC2564MODA With MSP430™ MCU

See the information in this section for using the CC2564MODA device with the [MSP430™ Ultra-Low-Power Microcontrollers](#).

5.1.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODA:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna Evaluation Board, [CC2564MODAEM](#)
- Application processor platforms:
 - MSP430F5438 Experimenter Board, [MSP-EXP430F5438](#)
 - For Bluetooth low energy and SPP only, use MSP430F5529 USB Experimenter's Board, [MSP-EXP430F5529](#).
- For audio/voice applications that use A3DP, HFP, or HSP:
 - Audio codec with manual routing is required.
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

5.1.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® stack on MSP430™ MCUs \(noOS\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

5.1.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [CC256x MSP430 TI Bluetooth Stack wiki page](#)

5.2 Use CC2564MODA With MSP432™ MCU

See the information in this section for using the CC2564MODA device with the [TI SimpleLink MSP432™ Microcontrollers](#).

5.2.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODA:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna BoosterPack Plug-In Module, [BOOST-CC2564MODA](#)
- Application processor platforms:
 - SimpleLink MSP432P401R LaunchPad Development Kit, [MSP-EXP432P401R](#)
- For audio/voice applications that use A3DP, HFP, or HSP:
 - SimpleLink Wi-Fi CC3200 Audio BoosterPack, [CC3200AUDBOOST](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

5.2.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth Stack on MSP432 MCUs \(noOS\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

5.2.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna BoosterPack™ Plug-in Module User's Guide](#)
 - [TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs User's Guide](#)

5.3 Use CC2564MODA With the Sitara™ AM335x, AM437x, AM57x Processors

See the information in this section for using the CC2564MODA device with the [AM335x Processors](#), [AM437x Processors](#), or the [AM57x Processors](#).

5.3.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODA:
 - Dual-mode Bluetooth CC2564 Module with Integrated Antenna Evaluation Board, [CC2564MODAEM](#)
- Application processor platforms:
 - For AM335x, use the AM335x Evaluation Module, [TMDXEVM3358](#).
 - For AM437x, use the AM437x Evaluation Module, [TMDXEVM437x](#).
 - For AM57x, use the AM572x Evaluation Module, [TMDSEVM572X](#).
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

5.3.2 Software

Build your Bluetooth use case and application with free software:

[TI Bluetooth Linux Add-On for AM335x EVM, AM437x EVM and BeagleBone With WL18xx and CC256x \(Linux\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

5.3.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [Bluetopia® Platform Manager Getting Started Guide](#) wiki page

5.4 Use CC2564MODA With the Tiva™ Arm® MCU

See the information in this section for using the CC2564MODA device with the Tiva [TM4C12x Arm® Cortex®-M4F Core-Based Microcontrollers](#).

5.4.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODA:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna Evaluation Board, [CC2564MODAEM](#)
- Application processor platforms:
 - TM4C123G USB + CAN Development Kit, [DK-TM4C123G](#)
 - IoT Enabled Arm Cortex-M4F MCU TM4C129X Connected Development Kit, [DK-TM4C129X](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

5.4.2 Software

Build your Bluetooth use case and application with free software:

Tiva Bluetooth Stack: [TI Dual-Mode Bluetooth® Stack on TM4C MCUs](#) (noOS and TI-RTOS)

5.4.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [Stack SDK User's Guide](#) wiki page

5.5 Use CC2564MODA With a Non-TI Processor

See the information in this section for using the CC2564MODA device with a non-TI processor.

5.5.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODA:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna Evaluation Board, [CC2564MODAEM](#)
- Application processor platforms:
 - Works with platforms like STM3240G EVAL.
- Adapter:
 - CC256XEM-STADAPT (see the [TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) product folder)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

5.5.2 Software

For the STM32 F4 processor, build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) (noOS and FreeRTOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

5.5.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® Stack on STM32F4 MCUs User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module With Integrated Antenna Evaluation Board Quick Start Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit](#)
 - [EM Adapter BoosterPack User's Guide](#)

6 Selection Guide for CC2564MODN

6.1 Use CC2564MODN With the MSP430™ MCU

See the information in this section for using the CC2564MODN device with the [MSP430™ Ultra-Low-Power Microcontrollers](#).

6.1.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODN:
 - Dual-Mode Bluetooth CC2564 Module Evaluation Board, [CC2564MODNEM](#)
- Application processor platforms:
 - MSP430F5438 Experimenter Board, [MSP-EXP430F5438](#)
 - For Bluetooth low energy and SPP only, use the MSP430F5529 USB Experimenter's Board, [MSP-EXP430F5529](#).
- For audio/voice applications that use A3DP, HFP, or HSP:
 - Audio codec with manual routing is required.
- **HCI tester:** This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

6.1.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® stack on MSP430™ MCUs \(noOS\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

6.1.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [BOOST-CCEMADAPTER EM Adapter BoosterPack User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board Quick Start Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit Quick Start Guide](#)
 - [CC256x MSP430™ TI Bluetooth® Stack wiki page](#)

6.2 Use CC2564MODN With the MSP432™ MCU

See the information in this section for using the CC2564MODN device with the [TI SimpleLink MSP432™ Microcontrollers](#).

6.2.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODN:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna BoosterPack Plug-In Module, [BOOST-CC2564MODA](#)
- Application processor platforms:
 - SimpleLink MSP432P401R LaunchPad Development Kit, [MSP-EXP432P401R](#)
- For audio/voice applications that use A3DP, HFP, or HSP:
 - SimpleLink Wi-Fi CC3200 Audio BoosterPack, [CC3200AUDBOOST](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

6.2.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth Stack on MSP432 MCUs](#) (noOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

6.2.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board Quick Start Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board User's Guide](#)
 - [EM Adapter BoosterPack User's Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit Quick Start Guide](#)
 - [TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs User's Guide](#)

6.3 Use CC2564MODN With the Sitara™ AM335x, AM437x, AM57x Processors

See the information in this section for using the CC2564MODN device with the [AM335x Processors](#), [AM437x Processors](#), or the [AM57x Processors](#).

6.3.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODN:
 - Dual-Mode Bluetooth CC2564 Module Evaluation Board, [CC2564MODNEM](#)
- Application processor platforms:
 - For AM335x, use the AM335x Evaluation Module, [TMDXEVM3358](#).
 - For AM437x, use the AM437x Evaluation Module, [TMDXEVM437x](#).
 - For AM57x, use the AM572x Evaluation Module, [TMDSEVM572X](#).
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

6.3.2 Software

Build your Bluetooth use case and application with free software:

[TI Bluetooth Linux Add-On for AM335x EVM, AM437x EVM and BeagleBone With WL18xx and CC256x \(Linux\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

6.3.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board User's Guide](#)
- Other documents and links:
 - [Bluetopia® Platform Manager Getting Started Guide](#) wiki page

6.4 Use CC2564MODN With the Tiva™ Arm® MCU

See the information in this section for using the CC2564MODN device with the Tiva [TM4C12x Arm® Cortex®-M4F Core-Based Microcontrollers](#).

6.4.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODN:
 - Dual-Mode Bluetooth CC2564 Module Evaluation Board, [CC2564MODNEM](#)
- Application processor platforms:
 - TM4C123G USB + CAN Development Kit, [DK-TM4C123G](#)
 - IoT Enabled Arm Cortex-M4F MCU TM4C129X Connected Development Kit, [DK-TM4C129X](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

6.4.2 Software

Build your Bluetooth use case and application with free software:

Tiva Bluetooth Stack: [TI Dual-Mode Bluetooth® Stack on TM4C MCUs](#) (noOS and TI-RTOS)

6.4.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [Stack SDK User's Guide](#) wiki page

6.5 Use CC2564MODN With a Non-TI Processor

See the information in this section for using the CC2564MODN device with a non-TI processor.

6.5.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564MODN:
 - Dual-Mode Bluetooth CC2564 Module Evaluation Board, [CC2564MODNEM](#)
- Application processor platforms:
 - Works with platforms like STM3240G EVAL.
- Adapter:
 - CC256XEM-STADAPT (see the [TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) product folder)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

6.5.2 Software

For the STM32 F4 processor, build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) (noOS and FreeRTOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

6.5.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC2564MODx Bluetooth® Host Controller Interface \(HCI\) Module](#)
- Bulletin: [TI Bluetooth® CC256x Solutions: Dual-Mode Bluetooth 4.1 Controller Available in Certified Modules With Integrated Audio Capabilities](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® Stack on STM32F4 MCUs User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Module Evaluation Board Quick Start Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit](#)
 - [EM Adapter BoosterPack User's Guide](#)

7 Selection Guide for CC2564

7.1 Use CC2564 With the MSP430™ MCU

See the information in this section for using the CC2564 device with the [MSP430™ Ultra-Low-Power Microcontrollers](#).

7.1.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - MSP430F5438 Experimenter Board, [MSP-EXP430F5438](#)
 - For Bluetooth low energy and SPP only, use the MSP430F5529 USB Experimenter's Board, [MSP-EXP430F5529](#).
- Audio TI designs:
 - For audio source TI design, use the Bluetooth and MSP MCU Audio Source Reference Design, [BT-MSPAUDSOURCE-RD](#).
 - For audio sink TI design, use the Bluetooth and MSP430 Audio Sink Reference Design, [BT-MSPAUDSINK-RD](#).
- For audio/voice applications that use A3DP, HFP, or HSP:
 - Audio codec with manual routing is required.
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

7.1.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® stack on MSP430™ MCUs \(noOS\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

7.1.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
 - [CC256x MSP430™ TI Bluetooth® Stack](#) wiki page
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)

7.2 Use CC2564 With the MSP432™ MCU

See the information in this section for using the CC2564 device with the [TI SimpleLink MSP432™ Microcontrollers](#).

7.2.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna BoosterPack Plug-In Module, [BOOST-CC2564MODA](#)
- Application processor platforms:
 - SimpleLink MSP432P401R LaunchPad Development Kit, [MSP-EXP432P401R](#)
- For audio/voice applications that use A3DP, HFP, or HSP:
 - SimpleLink Wi-Fi CC3200 Audio BoosterPack, [CC3200AUDBOOST](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

7.2.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs \(noOS\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

7.2.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
 - [TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs User's Guide](#)
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)

7.3 Use CC2564 With the Sitara™ AM335x, AM437x, AM57x Processors

See the information in this section for using the CC2564 device with the [AM335x Processors](#), [AM437x Processors](#), or the [AM57x Processors](#).

7.3.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - For AM335x, use the AM335x Evaluation Module, [TMDXEVM3358](#).
 - For AM437x, use the AM437x Evaluation Module, [TMDXEVM437x](#).
 - For AM57x, use the AM572x Evaluation Module, [TMDSEVM572X](#).
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

7.3.2 Software

Build your Bluetooth use case and application with free software:

[TI Bluetooth Linux Add-On for AM335x EVM, AM437x EVM and BeagleBone With WL18xx and CC256x \(Linux\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

7.3.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)
 - [Bluetopia® Platform Manager Getting Started Guide](#) wiki page

7.4 Use CC2564 With the Tiva™ Arm® MCU

See the information in this section for using the CC2564 device with the Tiva [TM4C12x Arm® Cortex®-M4F Core-Based Microcontrollers](#).

7.4.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - TM4C123G USB + CAN Development Kit, [DK-TM4C123G](#)
 - IoT Enabled Arm Cortex-M4F MCU TM4C129X Connected Development Kit, [DK-TM4C129X](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

7.4.2 Software

Build your Bluetooth use case and application with free software:

Tiva Bluetooth Stack: [TI Dual-Mode Bluetooth® Stack on TM4C MCUs](#) (noOS and TI-RTOS)

7.4.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [Stack SDK User's Guide](#) wiki page

7.5 Use CC2564 With a Non-TI Processor

See the information in this section for using the CC2564 device with a non-TI processor.

7.5.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - Works with platforms like STM3240G EVAL
- Adapter:
 - CC256XEM-STADAPT (see the [TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) product folder)
- **HCI tester**: This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

7.5.2 Software

For the STM32 F4 processor, build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) (noOS and FreeRTOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

7.5.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® Stack on STM32F4 MCUs User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit](#)
 - [EM Adapter BoosterPack User's Guide](#)
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)

8 Selection Guide for CC2560

8.1 Use CC2560 With the MSP430™ MCU

See the information in this section for using the CC2560 device with the [MSP430™ Ultra-Low-Power Microcontrollers](#).

8.1.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2560:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - MSP430F5438 Experimenter Board, [MSP-EXP430F5438](#)
 - For Bluetooth low energy and SPP only, use the MSP430F5529 USB Experimenter's Board, [MSP-EXP430F5529](#).
- Audio TI designs:
 - For audio source TI design, use the Bluetooth and MSP MCU Audio Source Reference Design, [BT-MSPAUDSOURCE-RD](#).
 - For audio sink TI design, use the Bluetooth and MSP430 Audio Sink Reference Design, [BT-MSPAUDSINK-RD](#).
- For audio/voice applications that use A3DP, HFP, or HSP:
 - Audio codec with manual routing is required.
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

8.1.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® stack on MSP430™ MCUs](#) (noOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

8.1.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
 - [CC256x MSP430™ TI Bluetooth® Stack](#) wiki page
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)

8.2 Use CC2560 With MSP432™ MCU

See the information in this section for using the CC2560 device with the [TI SimpleLink MSP432™ Microcontrollers](#).

8.2.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2560:
 - Dual-Mode Bluetooth CC2564 Module with Integrated Antenna BoosterPack Plug-In Module, [BOOST-CC2564MODA](#)
- Application processor platforms:
 - SimpleLink MSP432P401R LaunchPad Development Kit, [MSP-EXP432P401R](#)
- Audio TI designs:
 - SimpleLink Wi-Fi CC3200 Audio BoosterPack, [CC3200AUDBOOST](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

8.2.2 Software

Build your Bluetooth use case and application with free software:

[TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs \(noOS\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

8.2.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
 - [TI Dual-Mode Bluetooth® Stack on MSP432™ MCUs User's Guide](#)
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)

8.3 Use CC2560 With the Sitara™ AM335x, AM437x, AM57x Processors

See the information in this section for using the CC2560 device with the [AM335x Processors](#), [AM437x Processors](#), or the [AM57x Processors](#).

8.3.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2560:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - For AM335x, use the AM335x Evaluation Module, [TMDXEVM3358](#).
 - For AM437x, use the AM437x Evaluation Module, [TMDXEVM437x](#).
 - For AM57x, use the AM572x Evaluation Module, [TMDSEVM572X](#).
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

8.3.2 Software

Build your Bluetooth use case and application with free software:

[TI Bluetooth Linux Add-On for AM335x EVM, AM437x EVM and BeagleBone With WL18xx and CC256x \(Linux\)](#)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

8.3.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)
 - [Bluetopia® Platform Manager Getting Started Guide](#) wiki page

8.4 Use CC2560 With the Tiva™ Arm® MCU

See the information in this section for using the CC2560 device with the Tiva [TM4C12x Arm® Cortex®-M4F Core-Based Microcontrollers](#).

8.4.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2564:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - TM4C123G USB + CAN Development Kit, [DK-TM4C123G](#)
 - IoT Enabled Arm Cortex-M4F MCU TM4C129X Connected Development Kit, [DK-TM4C129X](#)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

8.4.2 Software

Build your Bluetooth use case and application with free software:

Tiva Bluetooth Stack: [TI Dual-Mode Bluetooth® Stack on TM4C MCUs](#) (noOS and TI-RTOS)

8.4.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
- Other documents and links:
 - [Stack SDK User's Guide](#) wiki page

8.5 Use CC2560 With a Non-TI Processor

See the information in this section for using the CC2560 device with a non-TI processor.

8.5.1 Hardware

These are the evaluation platforms that fit your design needs:

- EVM for the CC2560:
 - Dual-Mode Bluetooth CC2564 Evaluation Board, [CC256XQFNEM](#)
- Application processor platforms:
 - Works with platforms like STM3240G EVAL.
- Adapter:
 - CC256XEM-STADAPT (see the [TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) product folder)
- [HCI tester](#): This hardware evaluation tool is used to evaluate RF performance and configure Bluetooth properties.
- See the [CC256x Hardware Design Checklist](#).

8.5.2 Software

For the STM32 F4 processor, build your Bluetooth use case and application with free software:

[TI Dual-mode Bluetooth® Stack on STM32F4 MCUs](#) (noOS and FreeRTOS)

The Apple MFi iPod Accessory Protocol (iAP) protocol is supported by add-on software packages. For customers with a valid Apple MFi license, follow the link to request access to the information:

[MFi add-on download approval request](#)

8.5.3 Technical Documentation

We are here to help. TI offers a wide range of online resources that are accessible anytime, anywhere.

- Data sheet: [CC256x Dual-Mode Bluetooth Controller](#)
- Bulletin: [TI Bluetooth® CC256x Solutions](#)
- Technical guides and user's guides:
 - Technical guides and user's guides:
 - [Dual-Mode Bluetooth® Stack on STM32F4 MCUs User's Guide](#)
 - [Dual-Mode Bluetooth® CC2564 Evaluation Board Quick Start Guide](#)
 - [CC256xEM Bluetooth® Adapter Kit](#)
 - [EM Adapter BoosterPack User's Guide](#)
- Other documents and links:
 - [QFN/SON PCB Attachment Application Report](#)

9 Additional Documentation Support

White Paper: Why Classic Bluetooth® (BR/EDR)? — Bluetooth® technology is a proven, robust, and widely spread technology. According to Bluetooth SIG®, there are more than 8 billion devices in circulation, including a strong presence in approximately 95% of all existing mobile phones and smartphones. This technology presents a complete solution for wirelessly transmitting audio, voice, and data. Bluetooth is a well-defined protocol up to the application level, which creates leading interoperability and compatibility between different devices and manufacturers.

Which TI Bluetooth® Solution Should I Choose? — Texas Instruments™ offers multiple Bluetooth® solutions, so it might be confusing to choose the correct part. Whether you want to add Bluetooth technology to an existing device or create a new Bluetooth product, the question is: which TI device should be chosen? This white paper discusses the CC256x and the CC26xx device options from Texas Instruments.

Wireless Connectivity Tri-Fold Overview — Today with more users, things and cloud services connecting to the Internet, the role of wireless connectivity is becoming increasingly important.

At Texas Instruments (TI), we are committed to delivering a broad portfolio of wireless connectivity solutions that consume the lowest power and are the easiest to use. With TI innovation supporting your designs, you can share, monitor and manage data wirelessly for applications in wearables, home and building automation, manufacturing, smart cities, healthcare and automotive.

Learn how you can be a part of the Internet of Things (IoT) as TI helps you connect more.

Surface Mount Assembly of Amkor's Dual Row MicroLeadFrame (MLF) Packages — See the links to this documentation at the bottom of the Amkor Technology™ web page.

DN035 – Antenna Selection Quick Guide — This selection guide for antennas lists design and application notes, antenna frequencies, bandwidth, and dimensions.

AN058 – Antenna Selection Guide — This application note describes important parameters to consider when deciding what kind of antenna to use in a short range device application.

Important antenna parameters, different antenna types, design aspects and techniques for characterizing antennas are presented. Radiation pattern, gain, impedance matching, bandwidth, size and cost are some of the parameters discussed in this document.

Antenna theory and practical measurement are also covered. In addition different antenna types are presented, with their pros and cons. All of the antenna reference designs available on www.ti.com/lpw are presented including the Antenna Development Kit (see [DN031 – CC-Antenna-DK Documentation and Antenna Measurements Summary](#)).

The last section in this document contains references to additional antenna resources such as literature, applicable EM simulation tools and a list of antenna manufacturer and consultants.

Correct choice of antenna will improve system performance and reduce the cost.

Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from June 7, 2017 to June 25, 2020	Page
• Changed the document title.....	1
• Throughout the document, updated links to ti.com as needed.....	1

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