

# BDE-WF3135A/N USER GUIDE

## Introduction

This user guide is for BDE-WF3135A and BDE-WF3135N, wireless modules based on TI CC3135R. It is a quick start guide for how to use the BDE-WF3135A and BDE-WF3135N with the MSP-EXP432P401R Development Kit, and how to build the first application. It also shows a demo for how to send commands to control the BDE-WF3135A and BDE-WF3135N module by UART.

## Get Ready

The following tools are recommended to develop with BDE-WF3135A/N.

Hardware tools:

- A BDE-WF3135A or BDE-WF3135N([BDE-WF3135A/N-BDE Technology Inc.\(bdecomm.com\)](http://www.bdecomm.com))
- A adaptor board
- PC or Laptop
- A MSP-EXP432P401R Development Kit
- USB cable for power supply and debugging

Software tools:

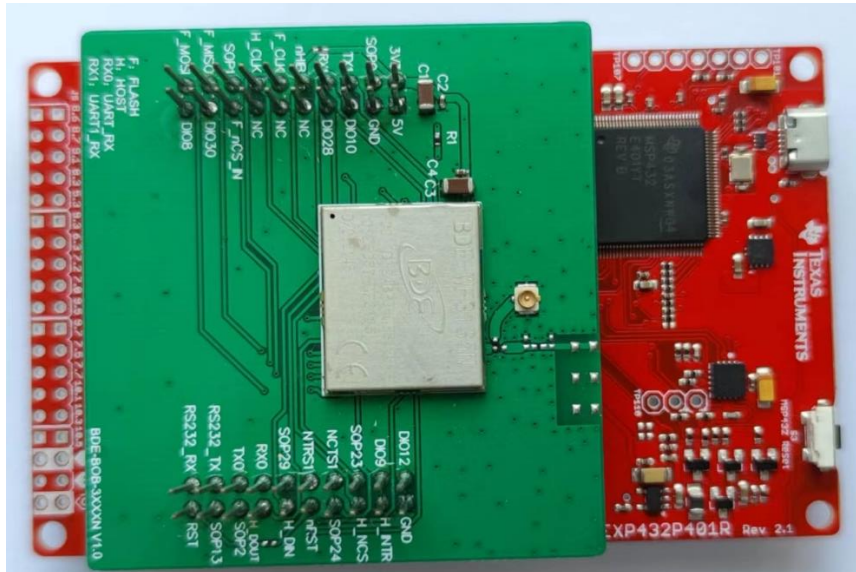
- [CCS](#)
- Uart Assistant
- Service Pack  
Path: ti\simplelink\_sdk\_wifi\_plugin\_4\_20\_00\_10\tools\cc31xx\_tools\servicepack-cc3x35
- Software Development Kit (SDK):
  - simplelink\_msp432p4\_sdk\_3\_40\_01\_02
  - [SIMPLELINK-SDK-WIFI-PLUGIN — SimpleLink™ software development kit \(SDK\) Wi-Fi® plug-in](#)

## Build Your First Application

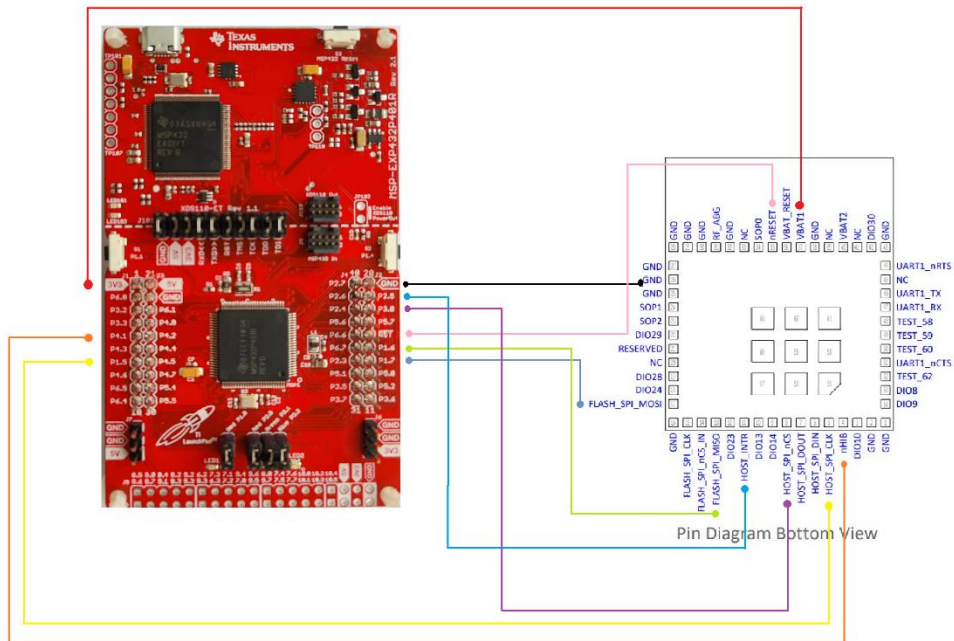
Once have the Hardware and Software tools in place, please follow the following steps:

A. Connect the Hardware

- Insert the adapter board directly into the MSP432 as the following shows.



- You can connect them with jumpers too.



MSP432	WF-3135
3V3	3V3
GND	GND
P4.1	nHIB
P1.5	HOST_SPI_CLK
P2.5	HOST_INTR
P3.0	HOST_SPI_NCS
RST	NREST
P1.6	FLASH_SPI_MISO
P1.7	FLASH_SPI_MOSI

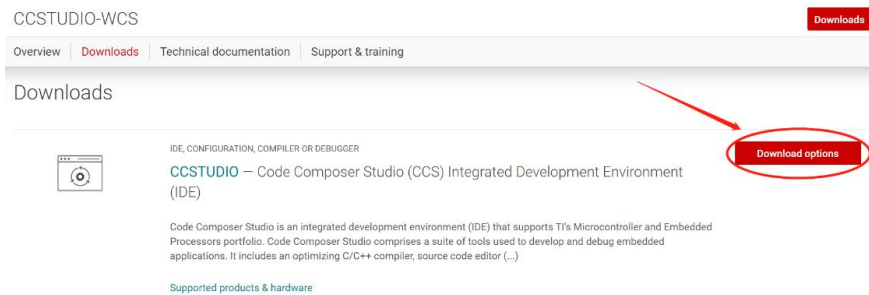
B. Build the Application

- Download and install the CCS and SDK

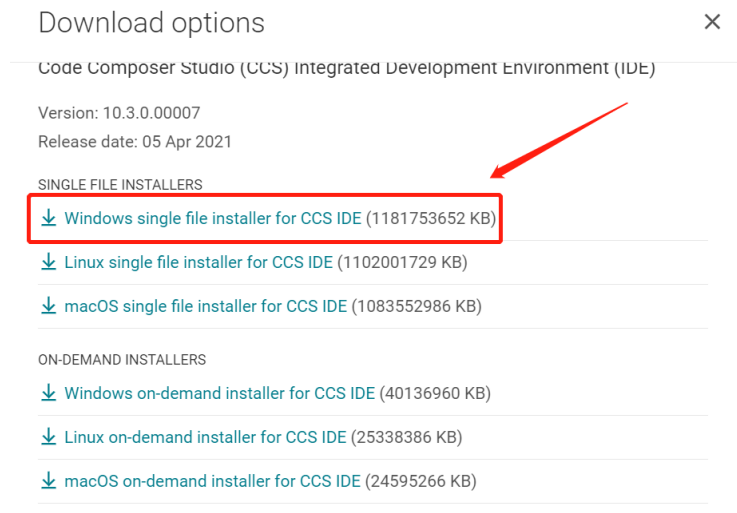
From the above links, follow the instructions in the following steps to download and install the CCS and SDK. Some versions will be prompted with a mismatch. If this occurs, please download CCS11.1.0.

- CCS Installation

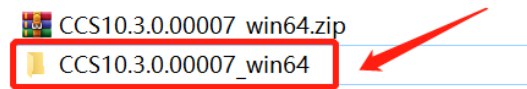
- Click on this option



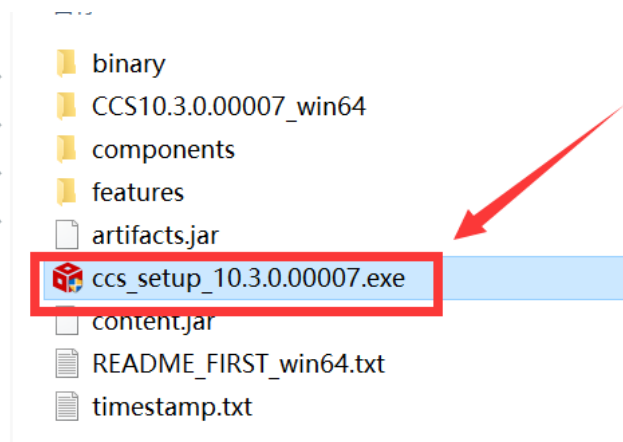
- Select an option to download CCS



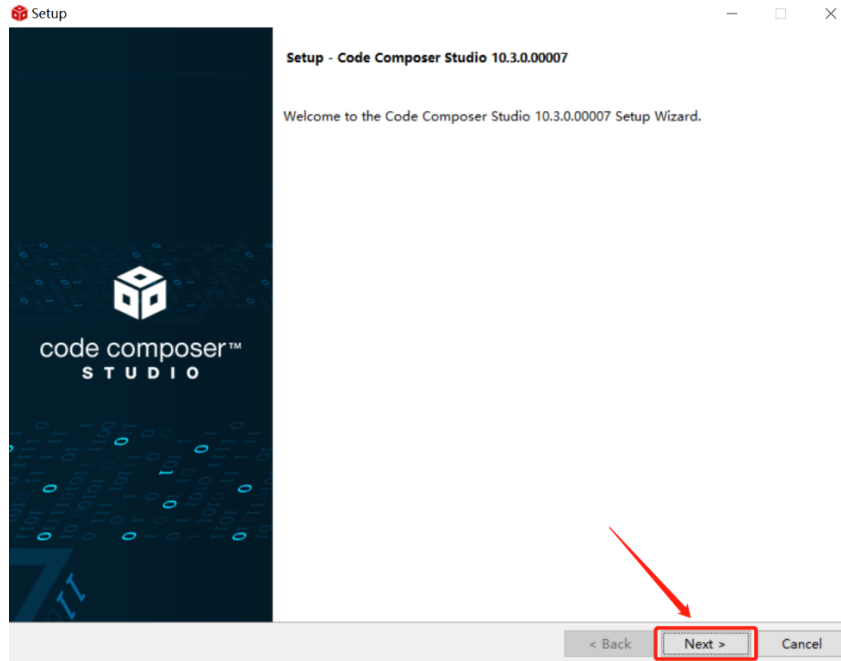
- Unzip the package to a local disc



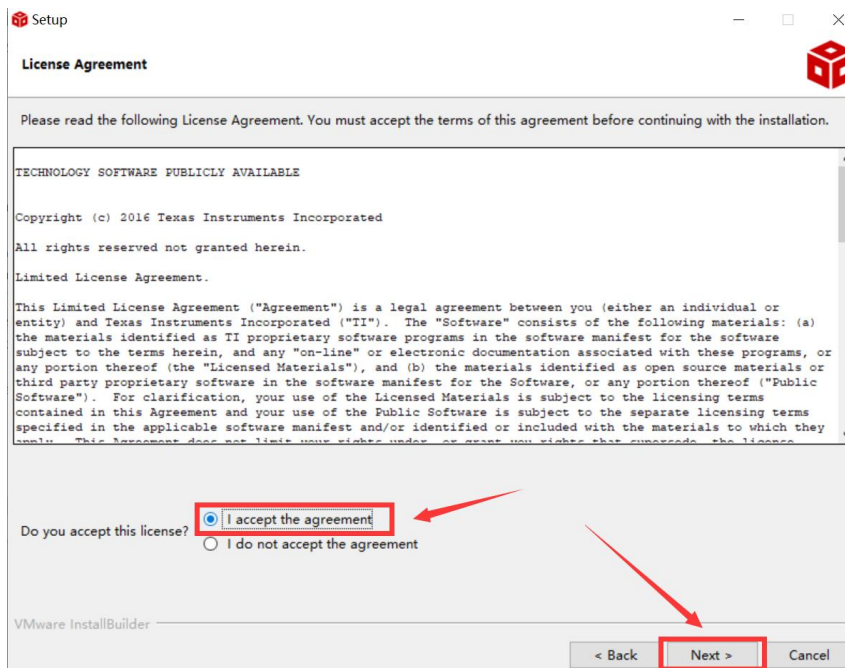
- Click the setup of CCS



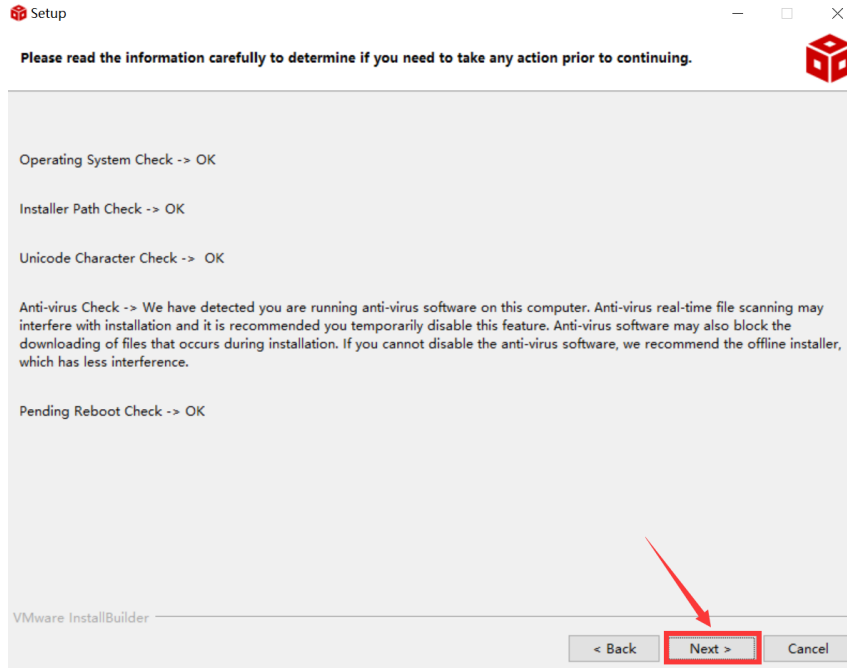
- Click "Next"



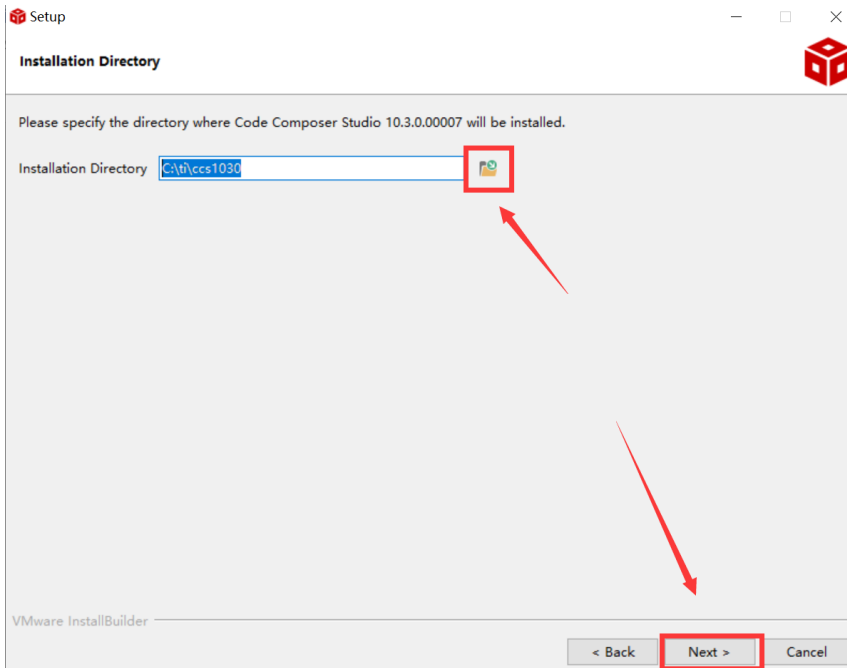
6. Select the default option



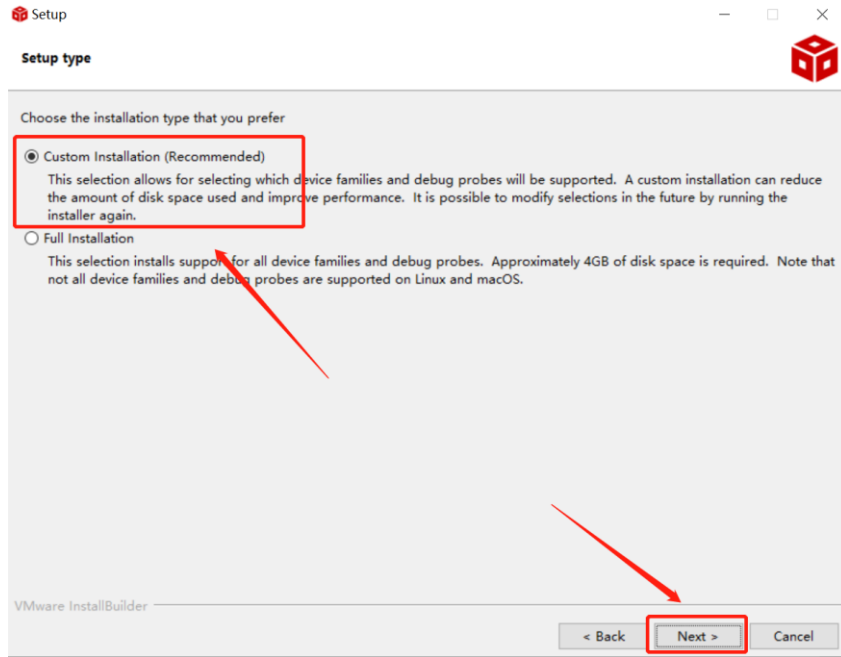
7. Click "Next"



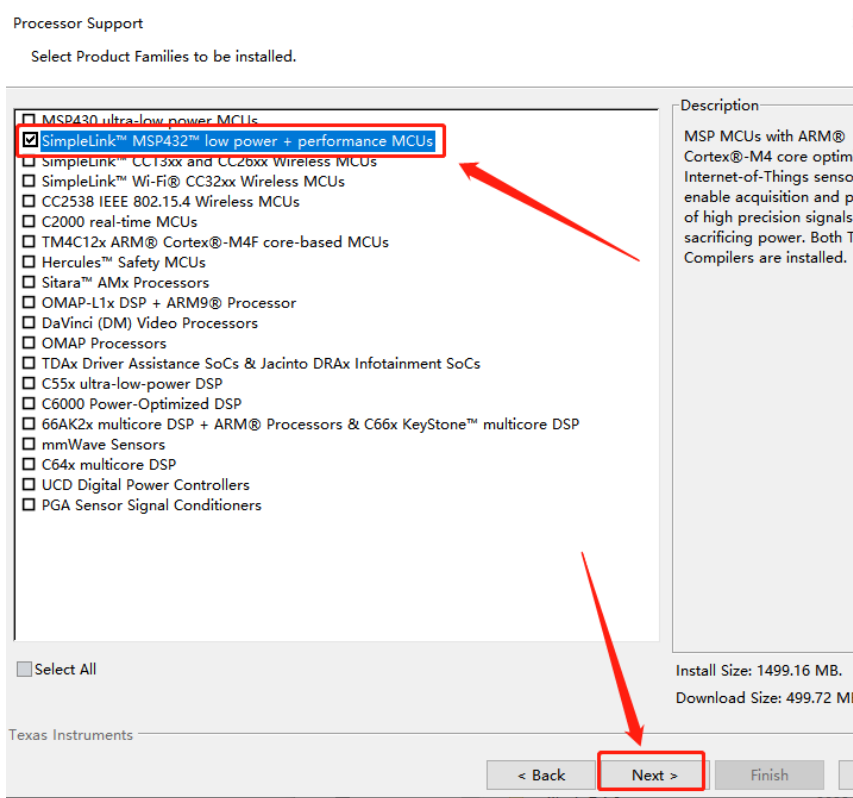
8. Select the Installation Directory



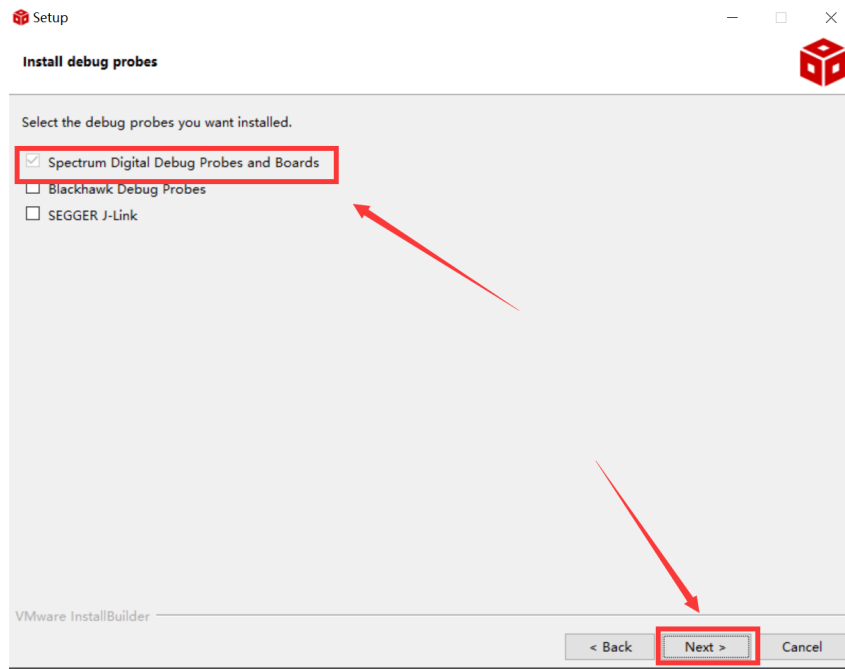
9. Select the default option



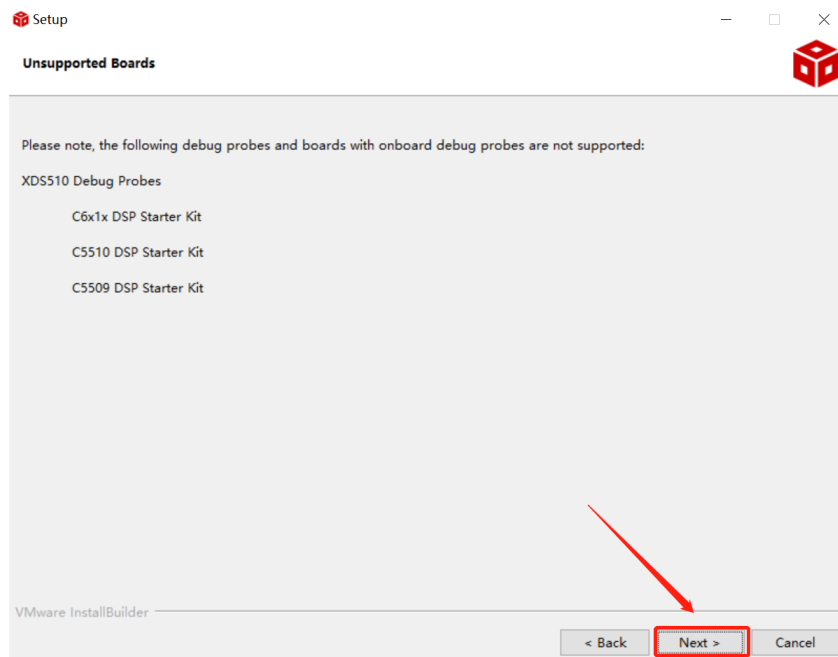
10. Select the component



11. Select the default option

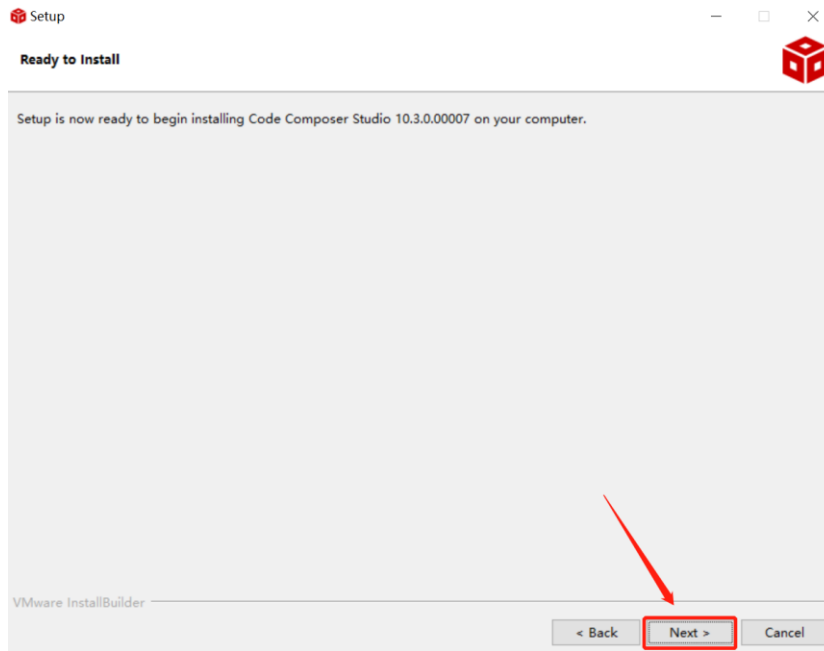


12. Click "Next"

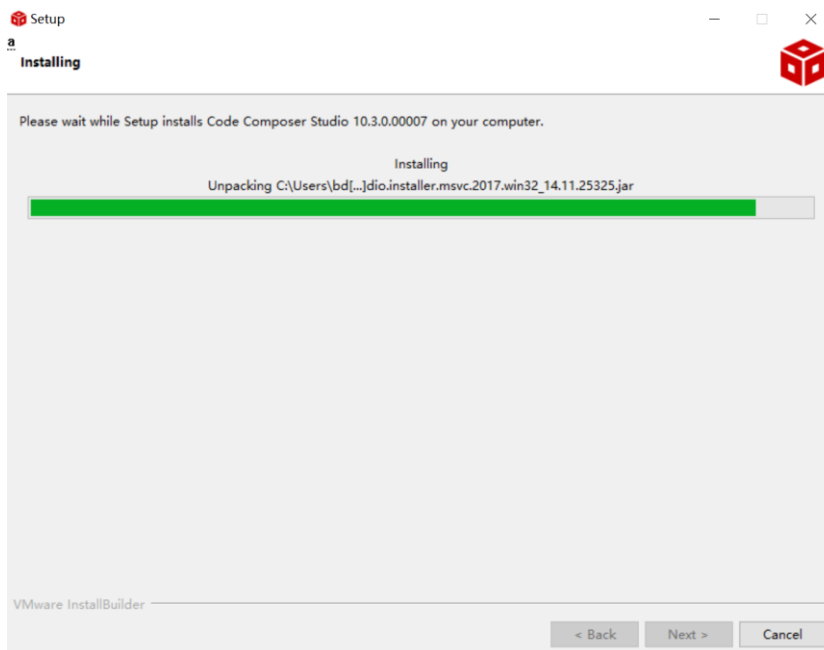


13. Click "Next"





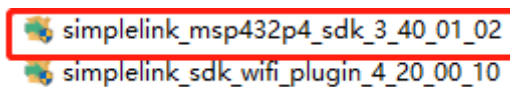
14. Waiting for installation to complete



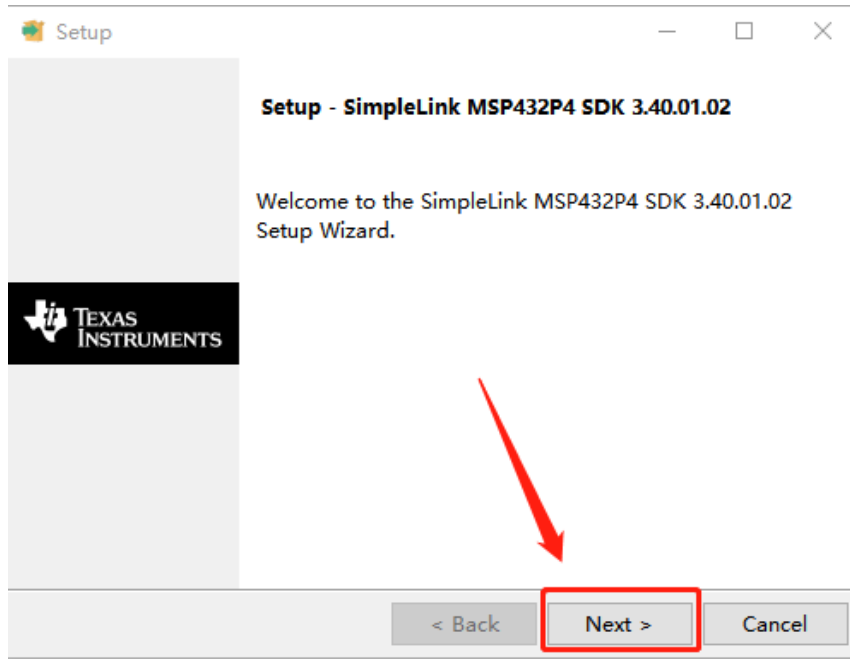
- **Software Development Kit (SDK) installation**

- simplelink\_msp432p4\_sdk\_3\_40\_01\_02

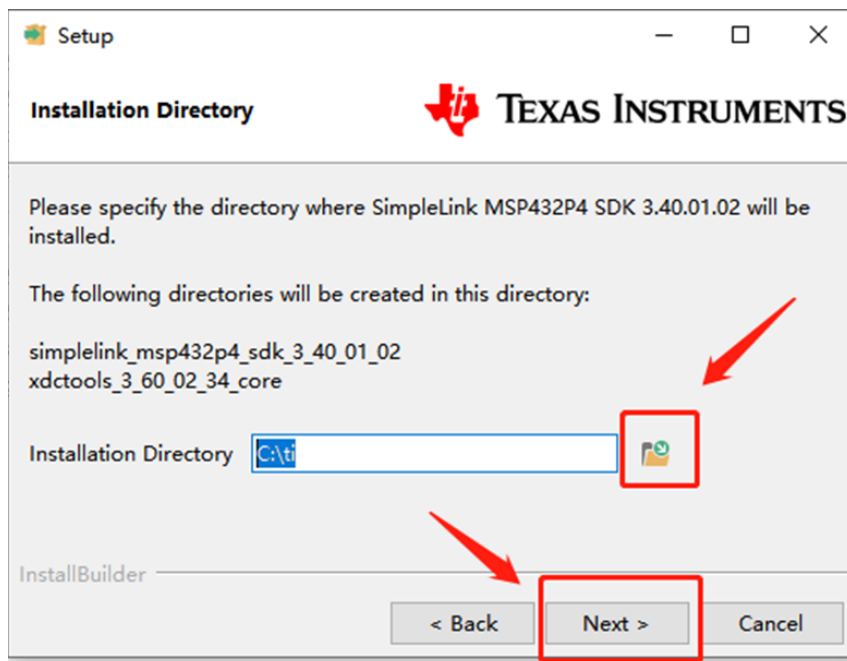
1. Installation



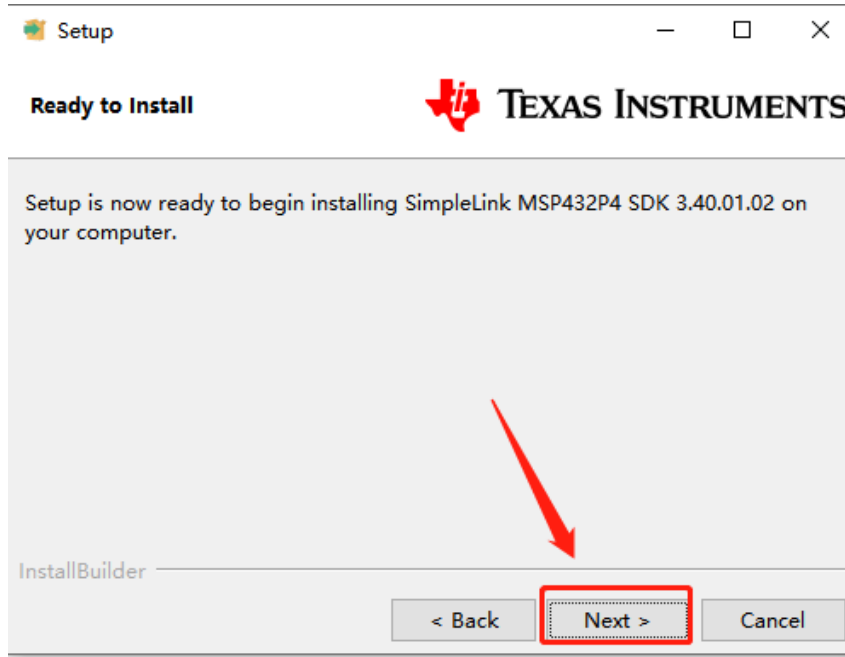
2. Click "Next"



3. Select the Installation directory



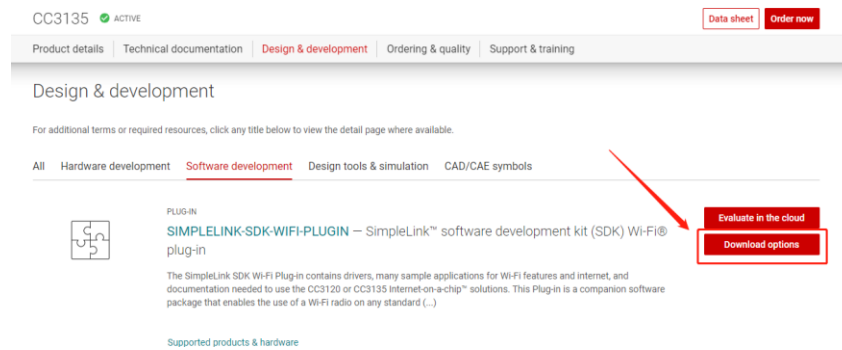
4. Click "Next"



5. Waiting for installation to complete

- SIMPLELINK-SDK-WIFI-PLUGIN — SimpleLink™ software development kit (SDK) Wi-Fi® plug-in

1. Click on this option



2. Select an option you need to download SDK

Download options

**Latest version** Version: 4.20.00.10 Release date: 08 Jul 2020

[Release notes](#) [View all versions](#)

**Downloads** Supported products & hardware

↓ Windows Installer for SimpleLink SDK Wi-Fi Plugin – 29510 K

↓ macOS Installer for SimpleLink SDK Wi-Fi Plugin – 23332 K

↓ Linux Installer for SimpleLink SDK Wi-Fi Plugin – 29633 K

3. Installation

simplelink\_sdk\_wifi\_plugin\_4\_20\_00\_10

4. Click "Next"

Setup

**Setup - simplelink\_sdk\_wifi\_plugin 4\_20\_00\_10**

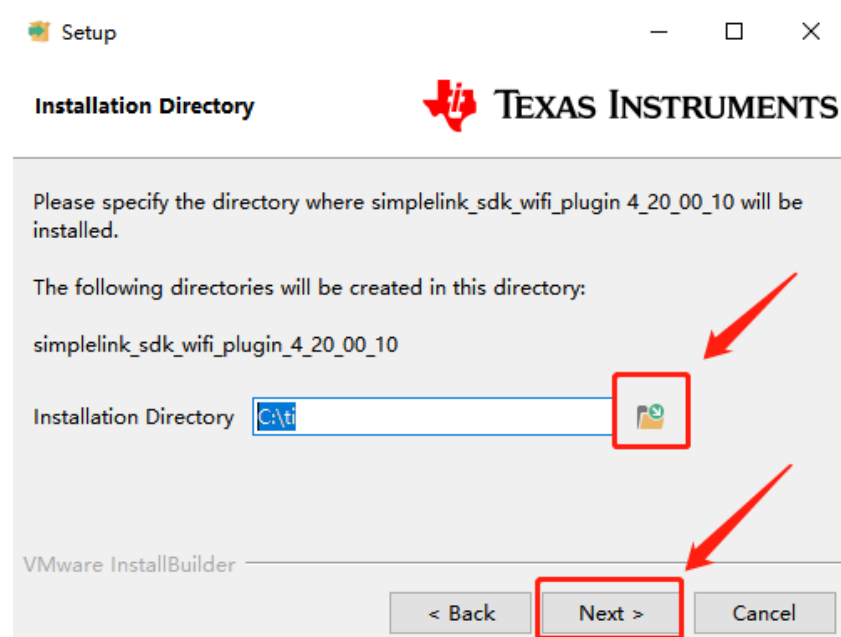
Welcome to the simplelink\_sdk\_wifi\_plugin 4\_20\_00\_10 Setup Wizard.

< Back **Next >** Cancel

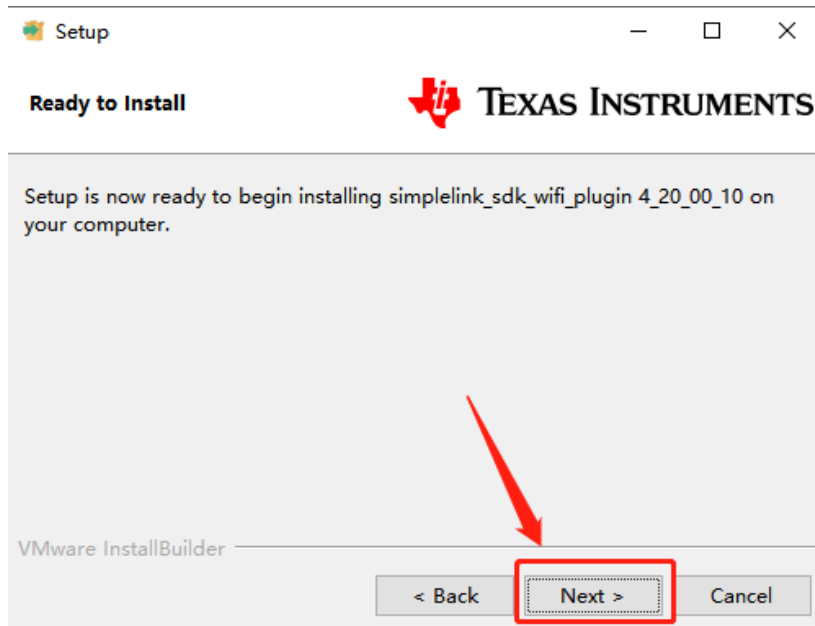
- 5. Select the default option



- 6. Select the Installation directory



- 7. Click "Next"

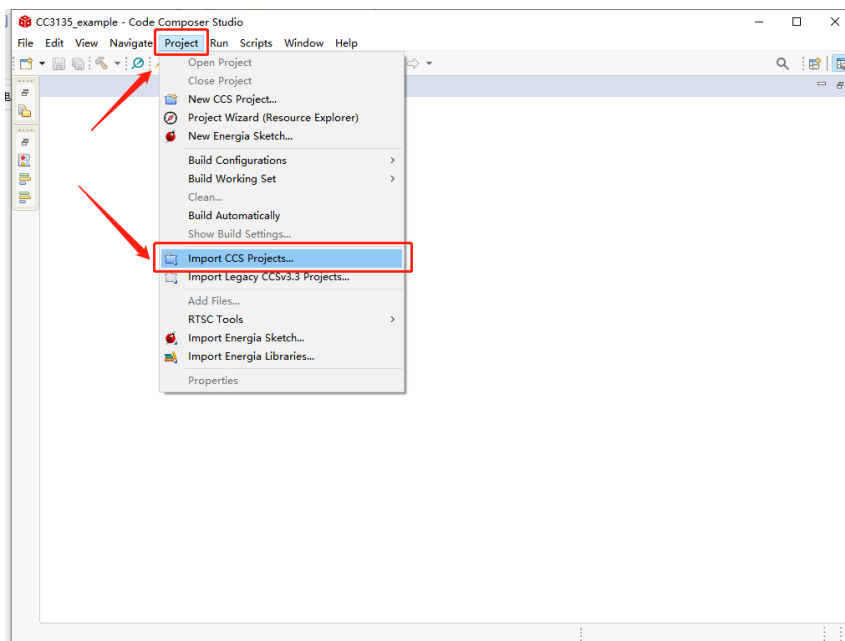


8. Waiting for installation to complete

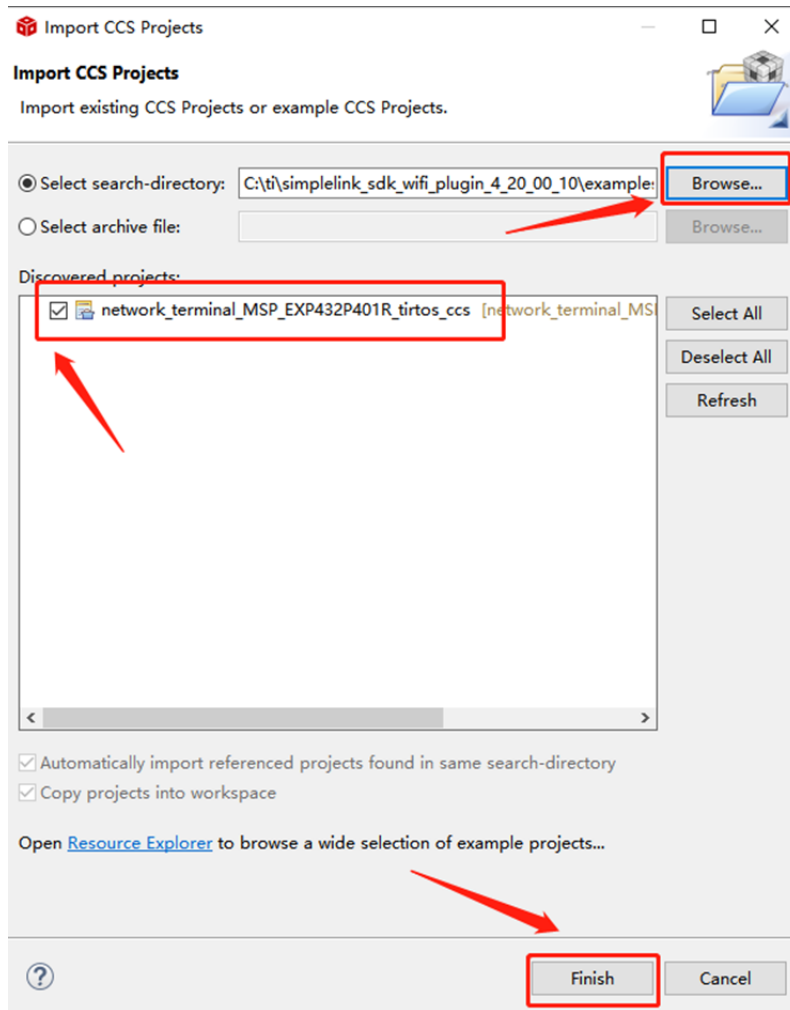
- Run an example/demo code

1. Download the Service Pack to the BDE-WF3135 module.

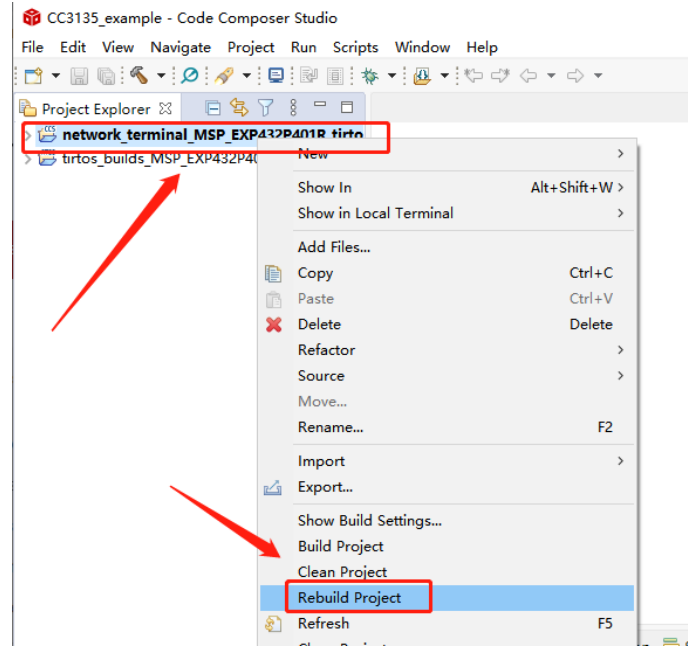
2. For the first module, find the option named "Import CCS project..."



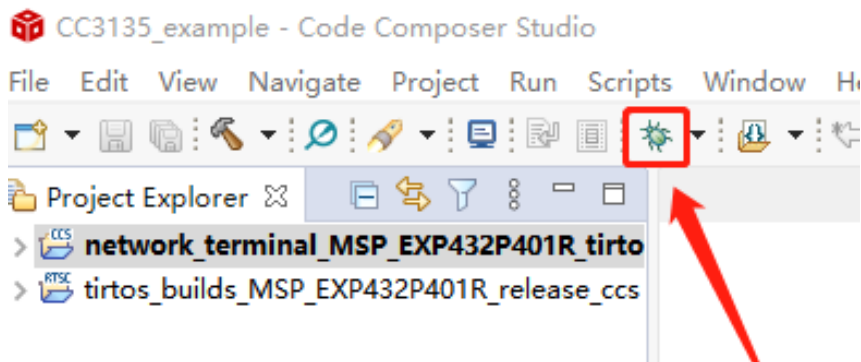
3. According to the following path to find the sending end project:  
ti\simplelink\_sdk\_wifi\_plugin\_4\_20\_00\_10\examples\rtos\MSP\_EXP432  
P401R\demos\network\_terminal\tirtos\ccs



4. Right Click the project to build the receiving end project

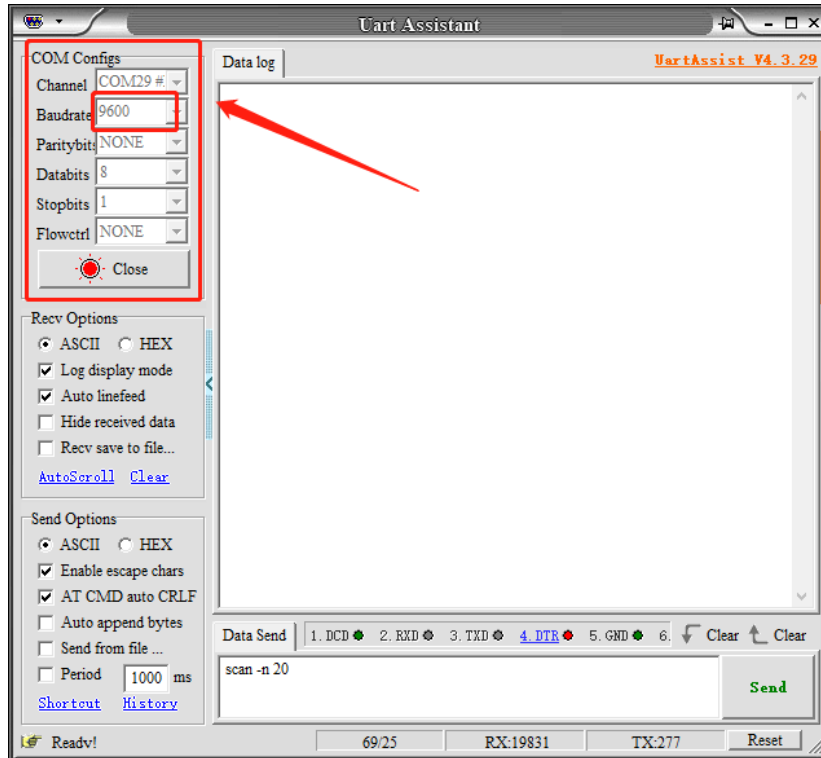


5. Click this bug icon (means download and debugging)

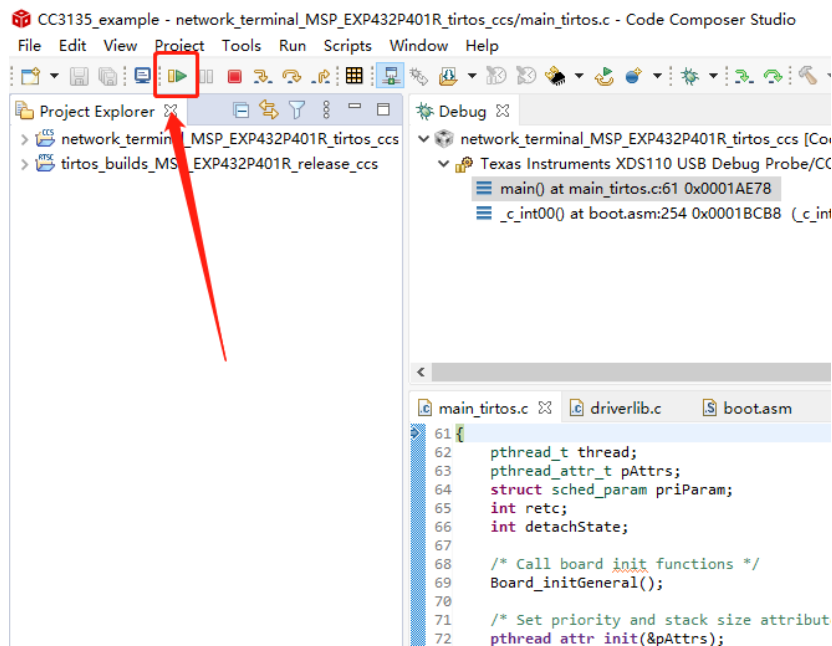


6. Open the Uart Assistant, set the options

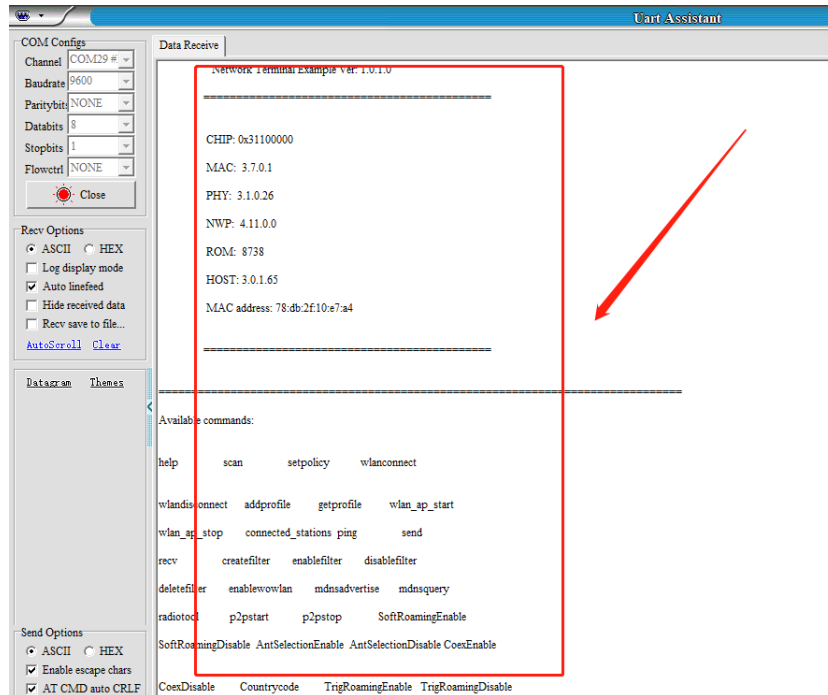




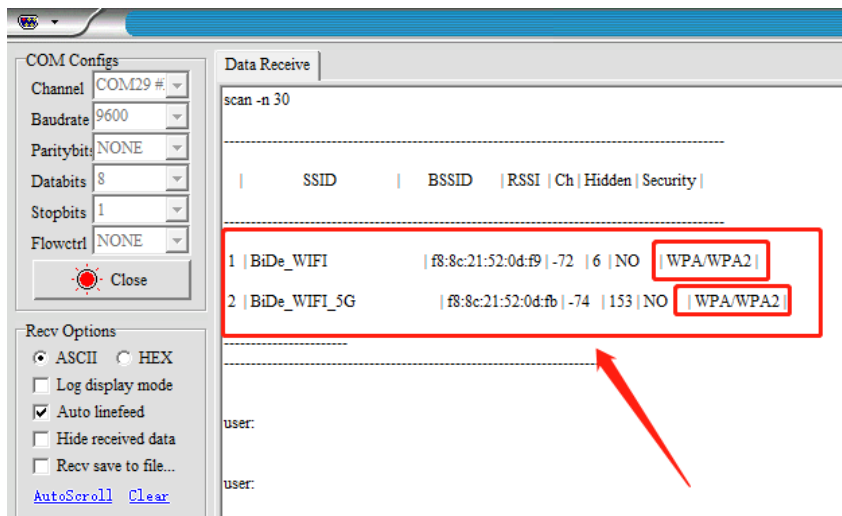
7. Click on this option to start debugging



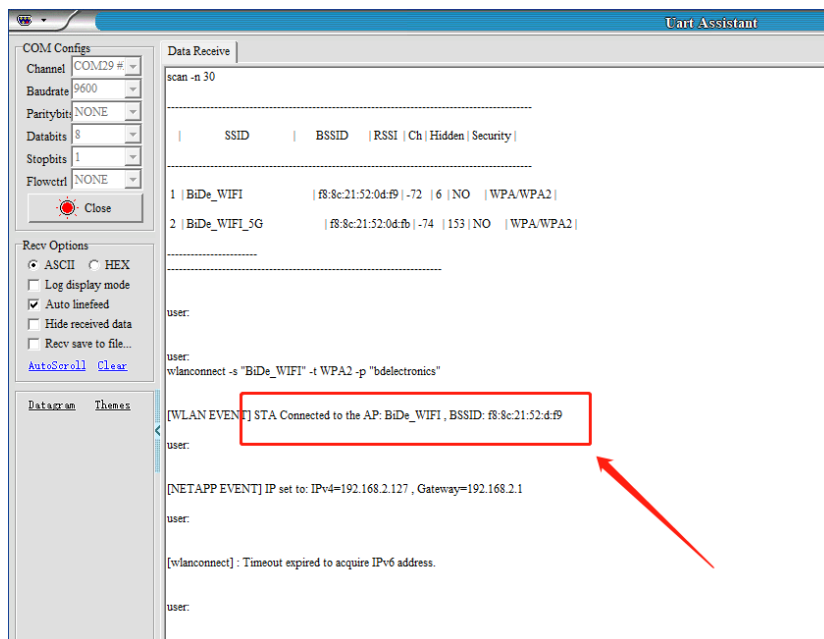
8. The Uart Assistant will receive the Initialization Information as the following shows.



9. Send the command (scan -n 10) to get the AP that can be connected



10. Find the AP which you want to connect, send the command (wlanconnect -s "AP name" -t WPA2 -p "password")



- When you receive this message, you have successfully connected to this AP. You can also follow the Initialization Information to send other commands to control it.

For further development, please check out the [CC3135 SimpleLink™ Wi-Fi® Dual-Band Network Processor Solution for MCU Applications datasheet \(Rev. B\)](#) and download the User guide [SimpleLink™ Wi-Fi® CC3x20, CC3x3x Network Processor \(Rev. M\)](#)

## Other Resources

[macOS Installer for SimpleLink SDK Wi-Fi Plugin](#)

[Linux Installer for SimpleLink SDK Wi-Fi Plugin](#)

[Mac OS Installer for Code Composer Studio IDE](#)

[Linux Installer for Code Composer Studio IDE](#)

## Revision History

Revision	Date	Description
V1.0	29-Jul-2022	Initial Released

**More Questions:**

Please search existing answers on [TI E2E support forums](#)

Contact your local TI sales representative.

Or

Contact BDE Technology, Inc.

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