Type1LD Evaluation Board AT Command Quick Start Guide

Document Number:	N3-0635
Version:	E’
Release Date:	2021/03/25

Murata Manufacturing Co., Ltd.

Revision History

Revision Number	Release Date	Comments
Revision A	2020/06/10	Initial
Revision B	2020/06/30	Added description of UART usage 3.1 Purpose and Scope
Revision C	2020/08/20	The procedure was changed to one that does not use UART conversion boards. **1. 5 Prerequisites** In this guide, it is assumed that you have applied the patch file provided by Murata Manufacturing to the WICED SDK. If it has not been applied, check the Type1LD Evaluation Board Quick Start Guide and apply the patch file. Building a Demo Application Adding procedures for high-speed communication 8 To perform high rate communication with AT command
Revision D	2020/10/12	Modify Maketarget **2. 5 Prerequisites** In this guide, it is assumed that you have applied the patch file provided by Murata Manufacturing to the WICED SDK. If it has not been applied, check the Type1LD Evaluation Board Quick Start Guide and apply the patch file. Building a Demo Application
Revision E	2021/03/25	Update for .patch platform file

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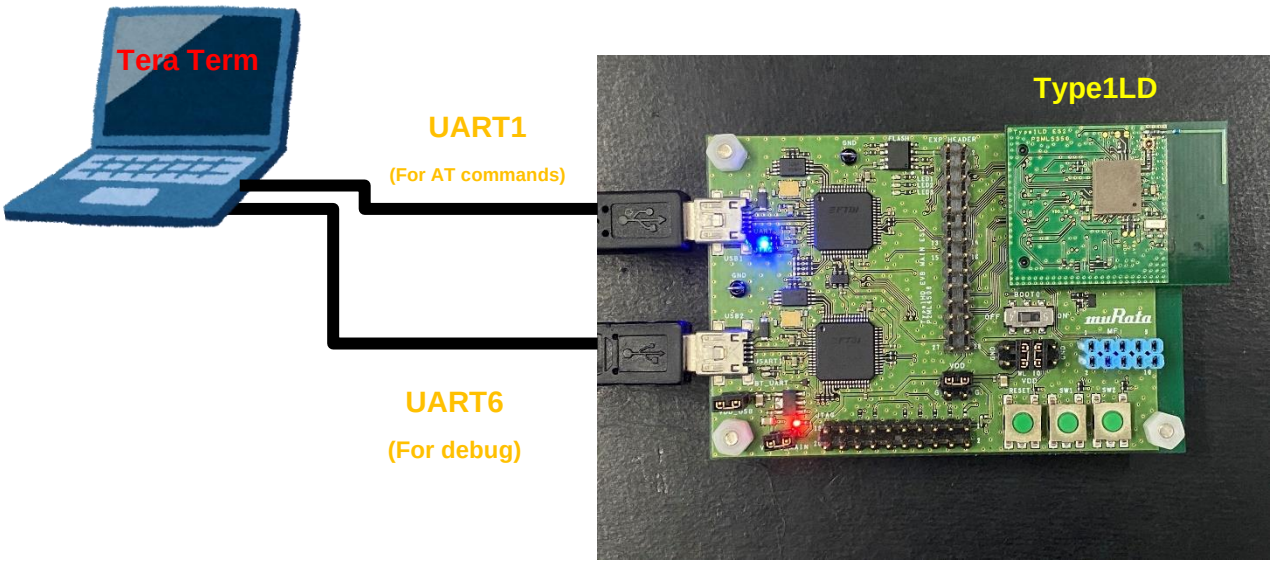
3. About this Document

3.1. Purpose and Scope

This document provides instructions to evaluate an AT command sample application on the Murata Type1LD EVB. Although Type1LD is supported by WICED-SDK, some modifications will be required when using our EVB. We provide the modification as a "platform file" and AT command sample application source code.



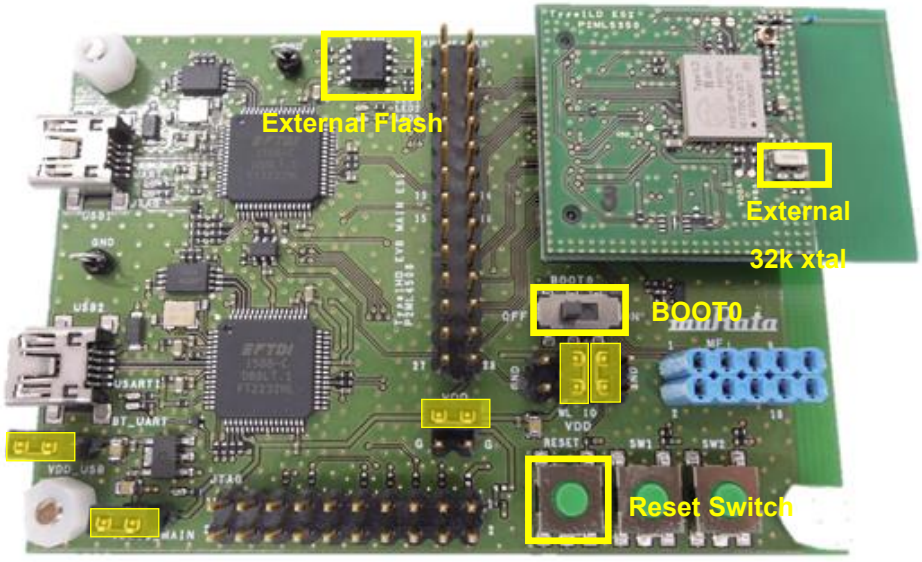
3.2. Document Conventions

Platform file – the source code to configure each platform.

4. Evaluation Board

The Murata Type1LD Evaluation Board supports both Ethernet and USB interfaces. To allow proper operation with WICED Studio, please verify that the mini-switch "BOOT0" is set with the correct pin settings

✓ BOOT0 : set to OFF



5. Prerequisites

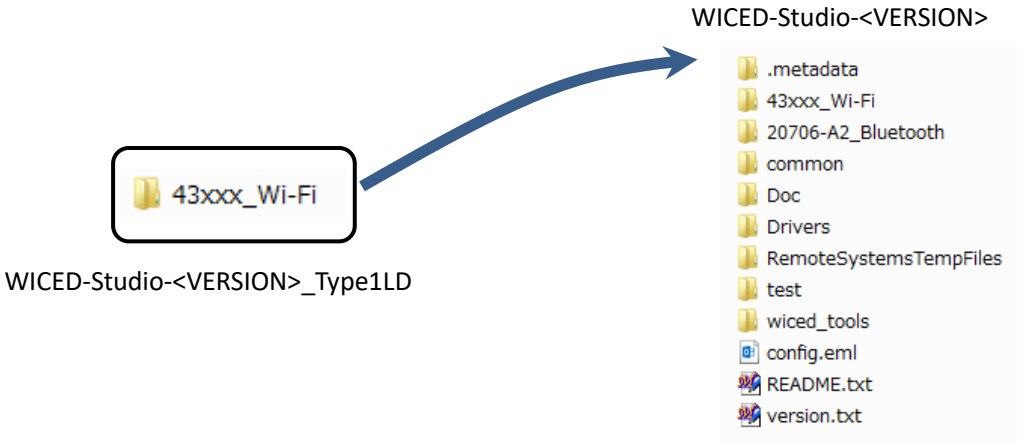
In this guide, it is assumed that you have applied the patch file provided by Murata Manufacturing to the WICED SDK. If it has not been applied, check the Type1LD Evaluation Board Quick Start Guide and apply the patch file.

6. Building a Demo Application

To Build a Demo Application, the following steps must be performed:

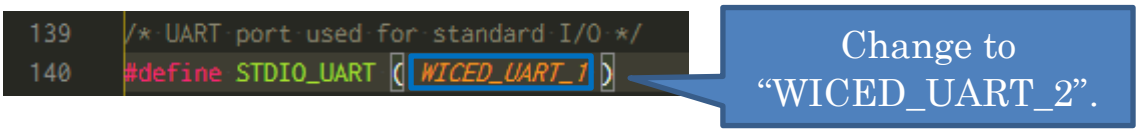
A) Copy the AT command sample application files provided by Murata to your WICED directory.

Note: WICED directory is at “C:\Users\<user name>\Documents\WICED-Studio-<VERSION>” with default installation.

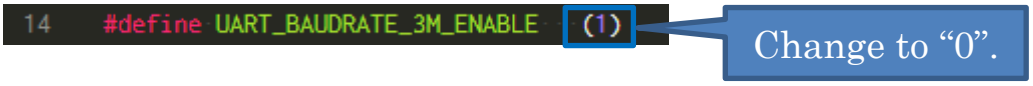


B) Change the source code.

To run the sample application, edit “43xxx_Wi-Fi¥platforms¥MurataType1LD¥platform.h”.



To run the sample application, edit “43xxx_Wi-Fi¥apps¥test¥at_cmd¥os_wrapper_wiced.c”



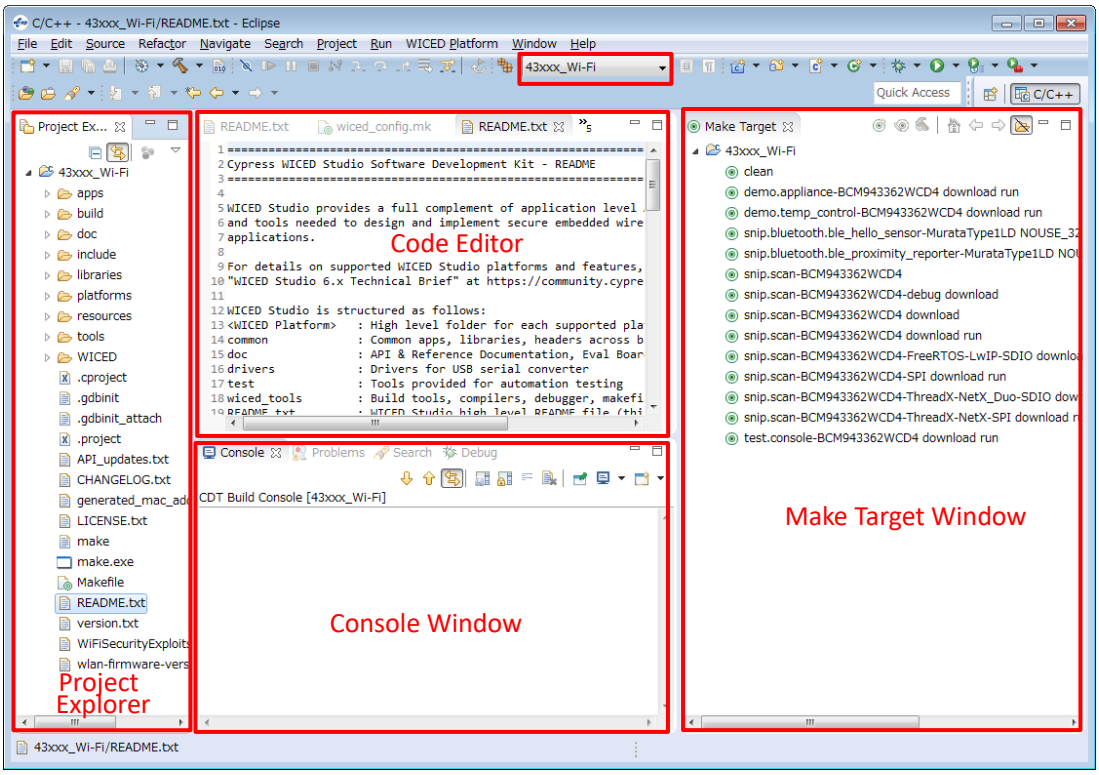
C) Connect the Evaluation board to your PC via the mini USB cable.

Type1LD should be detected as “WICED USB Serial Port (COMXX)”. (“XX” is the serial port number.) If Type1LD cannot be detected, you may manually install the driver from <WICED-Studio>\Drivers\Windows\

D) Start the WICED-SDK.

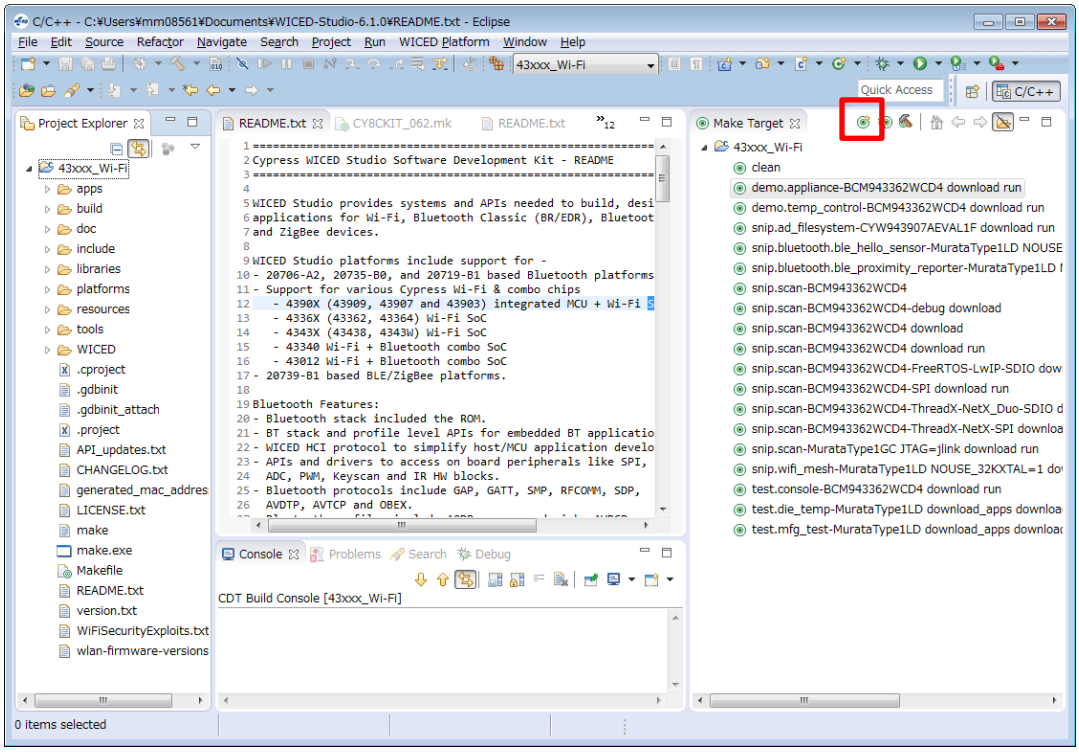
Start the WICED Studio by selecting *START > ALL Programs > Cypress > WICED-Studio*.

Select target “43xxx_Wi-Fi” or “WICED Filters off”.



E) Build and download the application.

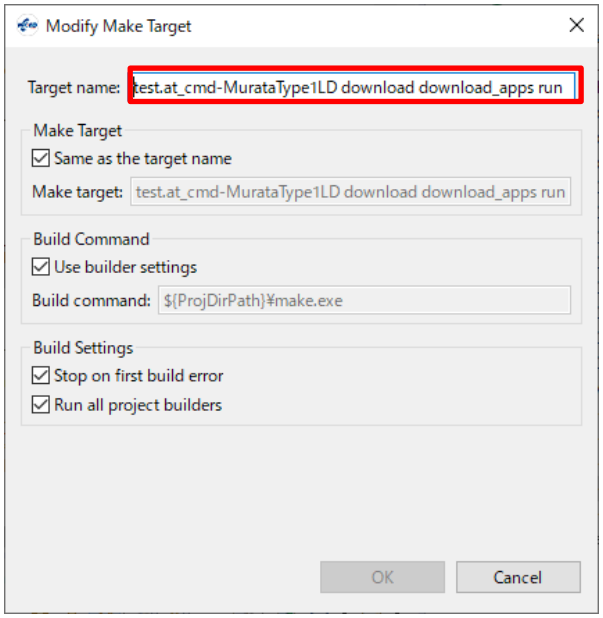
a) Click “New Make Target” button.



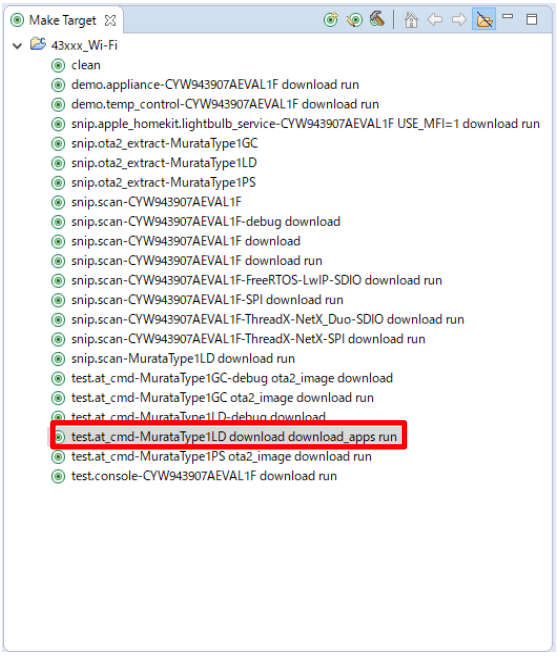
“Create Make Target” window will appear.

b) Input the following text to the “Target name” field.

test.at_cmd-MurataType1LD download download_apps run

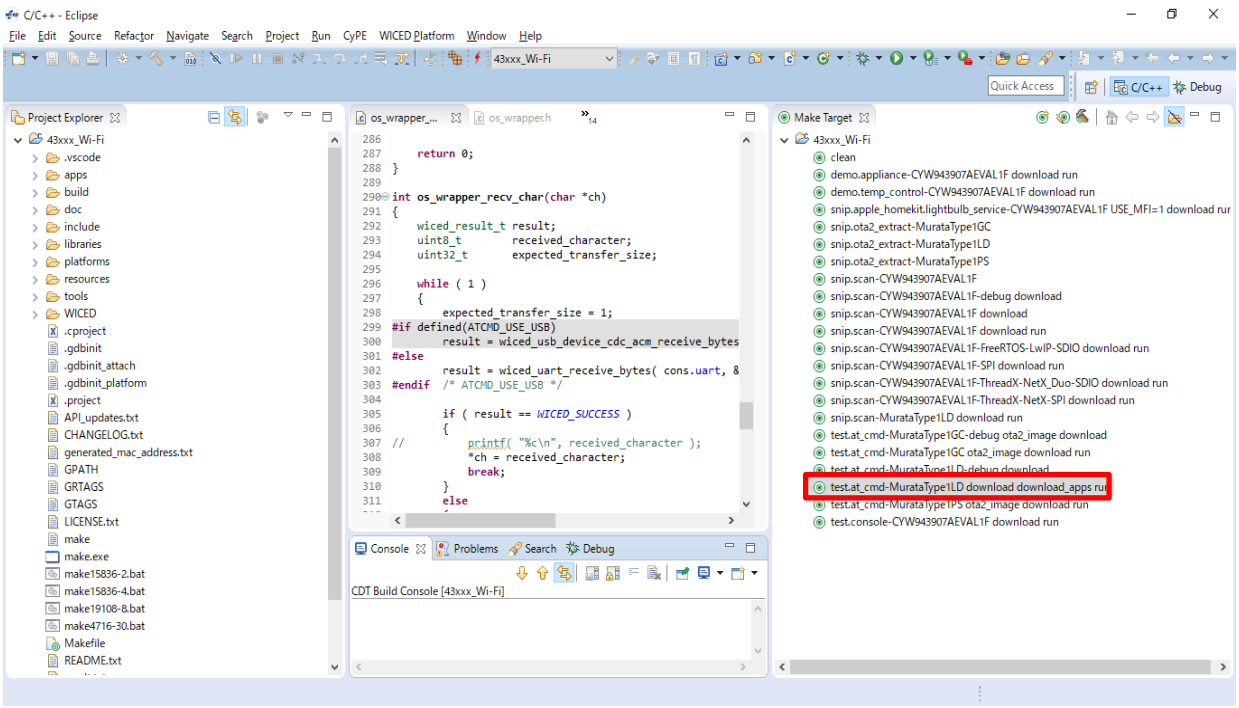


c) Select “OK” and confirm that the new target have been added in the “Make Target” area.



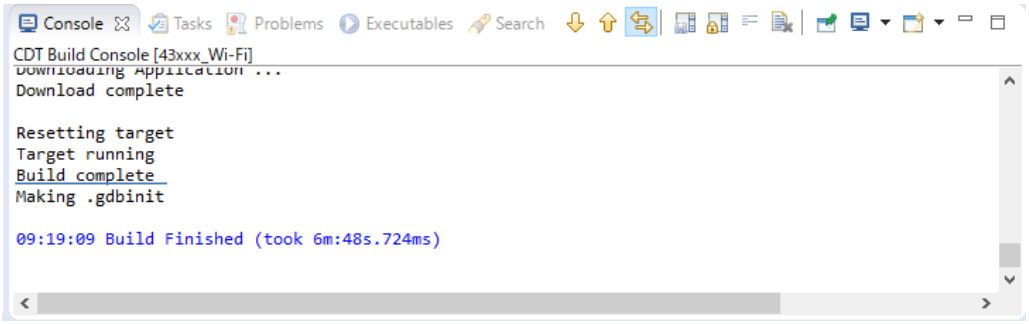
Double-click on the Make Target “test.at_cmd-MurataType1LD download download_apps run” to build the application.

Note: It will take some minutes for first building.



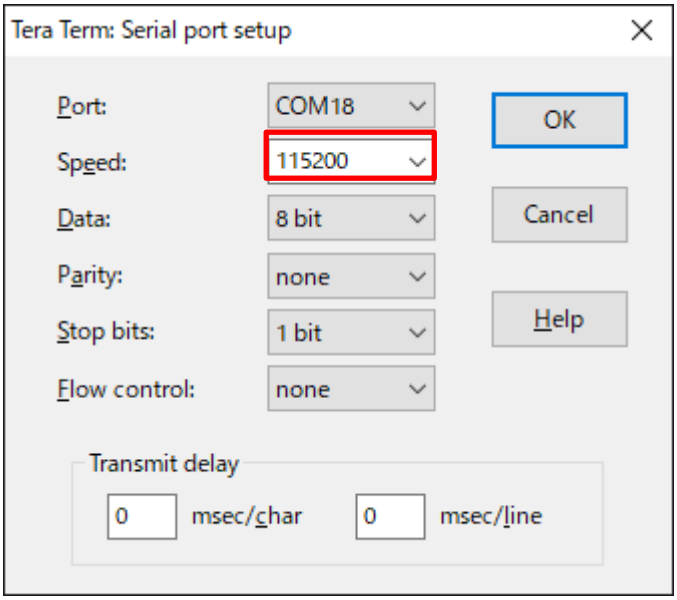
F) Building progress will be displayed on the window of the “Studio Console”.

G) “Build complete” indicates that the building and downloading of the application has been successful.

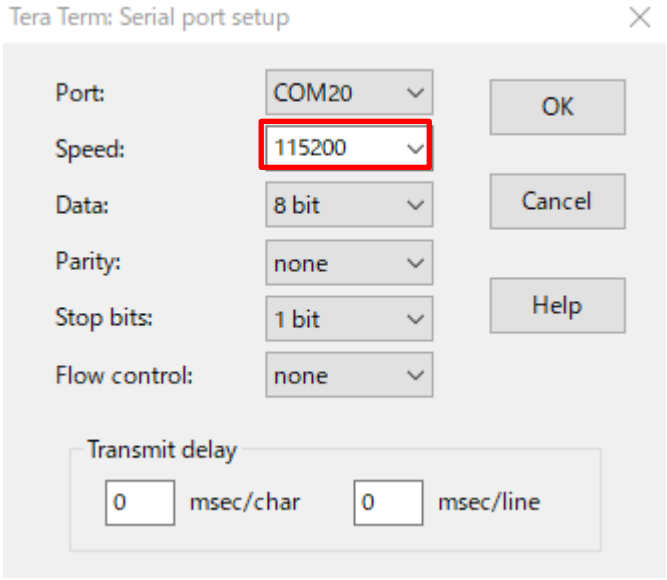


7. Running AT command Application

To verify the application which is downloaded in section 3, you need to launch a terminal software such as Tera Term. Please select [Setup] > [Serial Port…] in the menu bar to setup serial port. Please use the following settings for the COM port connection.

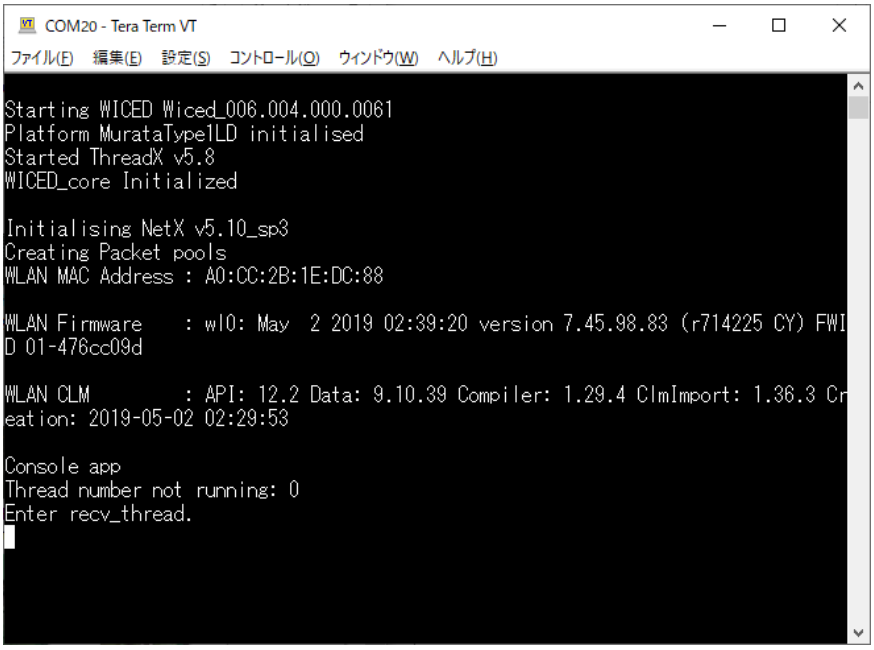


COM port settings for **UART1**

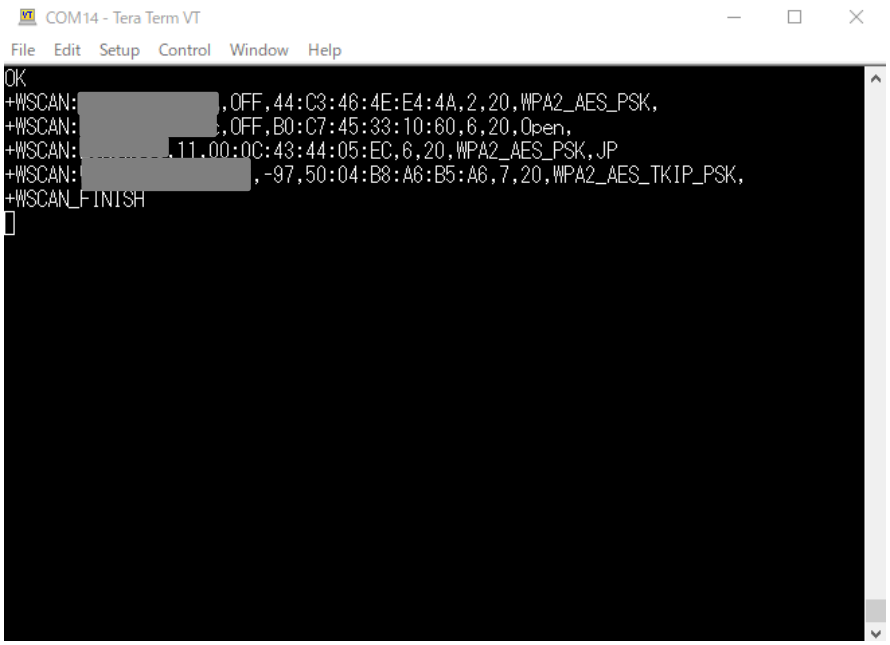


COM port settings for **UART6**

The following texts will appear on Tera Term (**UART6**).



The following texts will appear on Tera Term (**UART1**) when you type an AT command **"AT+WSCAN"** and line feed code (**CR+LF**) on the Tera Term window.



8. To perform high rate communication with AT command

For high-speed communication such as throughput measurement, it is necessary to connect the UART directly to the pin of the 1LD so that we can use 3Mbps baud rate and hardware flow control. After you finished the procedure in Section 3, perform the following steps to enable 3Mbps baud rate and hardware flow control. You can use any host processors which have UART interface but we used Raspberry Pi 3B as a host to check if AT commands works correctly.

A) Change the source code.

Edit “43xxx_Wi-Fi¥platforms¥MurataType1LD¥platform.h”.

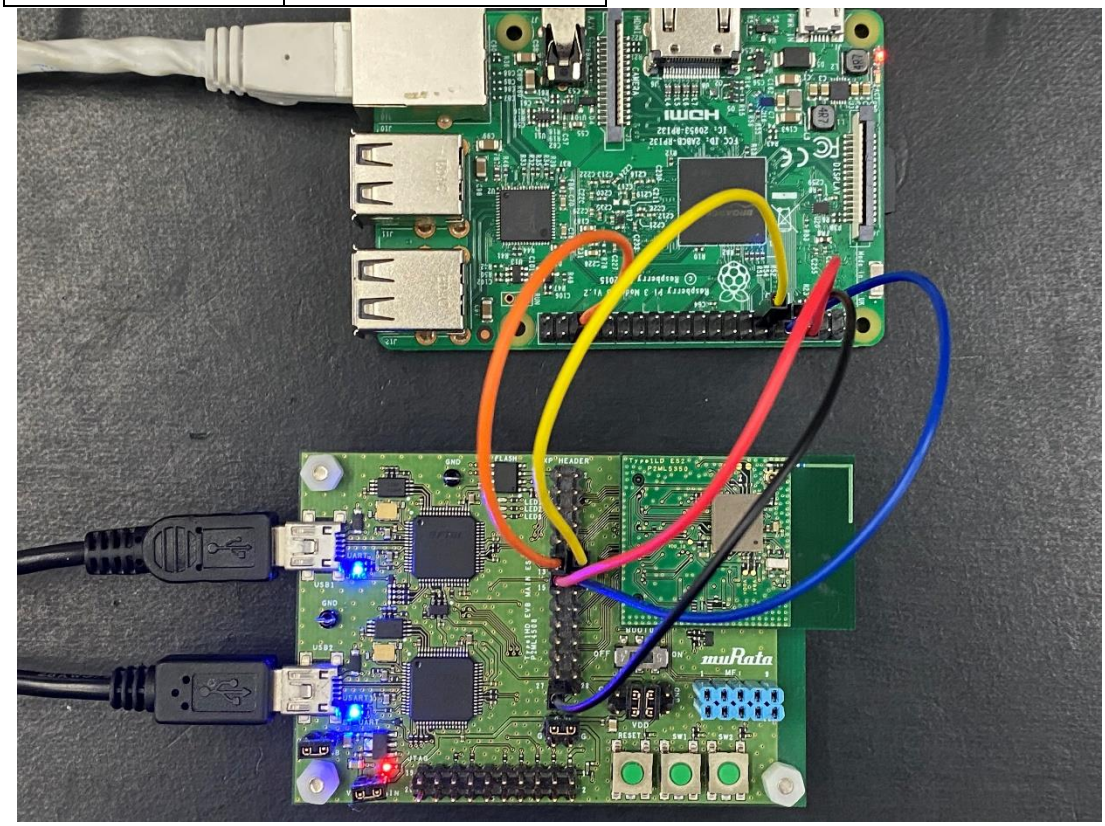
```
14    #define UART_BAUDRATE_3M_ENABLE    (0)
```

Change to “1”.

B) UART connection between host and 1LD

Connect the PIN as follows.

PIN (1LD)	PIN (Raspberry Pi 3)
11	36
12	11
13	10
14	8
27	9



C) Performing Rebuilds and Download

(END)