Bluegiga Forums / Community Forums / Bluetooth Smart

BLE113 Connection

Answered

Alaa Alabed
asked this on December 9, 2014, 13:35

Hello,

I have a BLE113 module and i think i have a problem with the connection. I'm connecting the AVDD & DVDD to a 3.3v and pin1-7,18,25,36 all grounded. It should at least detect the module in bluetooth search but it cant be found. Can anyone please give me the connection for the module ??

0 people would like this to be answered. Be the first!

Comments

Jeff Rowberg
Bluegiga Technologies

Answer

Hello Alaa,

Your connections are most likely correct. The factory default firmware that comes on bare modules is the "**uartdemo**" project that is currently found in the latest v1.3.1-119 SDK's **/example/dkble/uardemo** folder, compiled specifically for whichever module you have purchased. The connections required for this are described in this KB article:

- https://bluegiga.zendesk.com/entries/80487657-BLExxx-Factory-default-firmware

This uses BGAPI over UART from an external host for all behavior control. The module will boot into an idle state, waiting for commands from a host, such as the "**gap_set_mode(2, 2)**" command (**[00 02 06 01 02 02]** in hex representation) which will make it start advertising. Until you send this, the module will not be visible in BLE scanning apps.

December 9, 2014, 15:41

Alaa Alabed

Hello Jeff,

In the graph below, Are all the connections necessary(P2_0,P2_1,P2_2,P2_6,P2_7,all P0)?? I only connected GNDs,DVDD,AVDD,P0_0 is high for the sleep mode and (P0_4,P0_5) for Tx and Rx.

Also is there any alternative for CC debugger? can't CR232 or TTL cables should be enoguh for UART interface ?

December 9, 2014, 18:34

Alaa Alabed

The graph is in the attached file

download.png (quick view)

December 9, 2014, 18:35

Jeff Rowberg
Bluegiga Technologies

Hello Alaa,

For UART connectivity to communicate using the default firmware, only P0_2/3/4/5 (CTS/RTS/TXD/RXD) are needed, plus P0_0 tied or driven high to keep the module awake. Also, of course, the module must be powered via the AVDD and DVDD pins, and grounded via at least one GND pin.

The CC debug interface (P2_2, P2_1, RESET) is only required for reflashing new firmware onto the module. It is not needed for BGAPI communication over the UART interface.

December 9, 2014, 19:01

Hello Jeff,

The problem is when i try to update the SDK (uartdemo) using BLE SW update tool software it shows that i only have to connect CC debugger even though i tried to connect RS232 and TTL cables but it didn't work. This is for my graduation project i only have one month left and CC debugger is not

Support

Alaa Alabed

availble in my country and need at least two weeks to be delivered. This is why I ask for any alternative beside CC debugger, is there any?

December 9, 2014, 19:13

Jeff Rowberg
Bluegiga Technologies

Hi Alaa,

You cannot use BLE Update over the UART interface. The BLE Update tool is only capable of using the CC debug interface for reflashing. It sounds like what you are trying to do is a UART DFU process, which is somewhat limited and must be done a different way. See the following article for detail:

- https://bluegiga.zendesk.com/entries/42713448--REFERENCE-Updating-BLE-module-firmware-using-UART-DFU

December 9, 2014, 19:19

rana karmi

hello all;
if i want to install an existing gatt.xml and hardware.xml (exiting project) to a new module do I need cc debugger ?

December 9, 2014, 19:53

Jeff Rowberg
Bluegiga Technologies

Hello Rana,

The CC debugger is not required for changing the GATT (this can be done using UART DFU), but you cannot change the hardware configuration over DFU, as noted in the article linked directly above describing the UART DFU process and limitations. For changes made in the hardware.xml file, the CC debug interface and reflash method is required.

December 9, 2014, 20:21

rana karmi

okay thank you Jeff

December 9, 2014, 20:24

Alaa Alabed

Dear Jeff ;

I was trying to use UART DFU but BLEGIU not responding when I change the baud rate ; and there is no response from ble113 side ; what can I do ?!!

December 10, 2014, 17:55

Jeff Rowberg
Bluegiga Technologies

Hi Alaa,

Were you able to communicate before you changed the baud rate? Do you have flow control connected properly, and are you asserting the wake-up pin correctly (active high) to keep the module awake?

December 10, 2014, 18:25

Alaa Alabed

Hi Jeff,

I was enable to insert three commands only in BLEGUI before it craches, also I didnt get any response from the module. I connected the Flow control and wake up pins correctly.

December 10, 2014, 18:57

Jeff Rowberg
Bluegiga Technologies

Hello Alaa,

If you have UART connected correctly and the port opened in BLEGUI at the right baud rate (57600 for the default **uartdemo** firmware), then you should see the "**system_boot**" event every time you power on or reset the module. Can you verify that you do see this even come in correctly? Further communication with the module will not be possible until you can see this happen.

December 10, 2014, 19:01

Hello Jeff,

Alaa Alabed

I still have a problem with UART interface, this time i'm using BLE112 module. I connected GNDs and all voltage pins same as the attachment, I didnt forget the wake up pin (P0_0). Using RS232 with MAX3232 shifter, but still there is no response from the module unless after several commands I get the response "ble_rsp_system_reset", see attached image. What is the problem exactly ?? is there any problem with my connection or is there any pre-configuration ?

aaaaaaaaaaaaa.png (quick view)
222222.png (quick view)

December 23, 2014, 22:00

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