

Bluegiga Forums / Community Forums / Bluetooth Smart

External MCU and ble112 communication

Answered



Spencer Chen

asked this on February 25, 2014, 01:26

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Hi ,

Now I have a project that must to control the ble112 module by external MCU(arduino). Now, I finish the code almost but I do not know why the ble112 will be crash the whole system unexpectedly. When it is crash, the Bluetooth connection will disconnect. Or I could not get any respond from ble112 but it is still connected with my iOS device, after few seconds, it works well. I did not use any delay or interrupt function. I do not know why its so instable.

Thanks for any reply and help.

0 people would like this to be answered.

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Comments



Jeff Rowberg
Bluegiga
Technologies

Hi Spencer,

Answer

Are you using the latest v1.2.2-100 BLE SDK for the firmware on your module, and are you using BGAPI control with packet mode enabled? The Arduino has no hardware flow control, so you must use packet mode for data integrity.

If you can provide a detailed explanation of exactly what happens when a failure occurs, and possibly post your project source code for review, it will be easier to help. It is also very helpful to get a logic analyzer capture of the UART RX/TX data between the Arduino and BLE module, since this is almost always where any problems are most visible.

February 25, 2014, 18:35



Spencer Chen

Hi Jeff,

Thanks for your advice. It works better.

February 26, 2014, 19:44



Spencer Chen

Hi Jeff,

I'd tried my application whole night but it still be crash. I had found one of your article which talk about the Ble112 UART timing error.

<http://forum.arduino.cc/index.php?topic=132487.0> //<=The link of the article

There is an error happen frequently. I want to print out flag and address value from connection_status event but sometimes it does not print out,even if it is in the advertising status. After couple seconds, the system will be crash or continue back to work well. Is the flow control problem? I'd use the mode="packet" in hardware.xml.

February 28, 2014, 07:42



Hi Spencer,

If you are not using flow control, then packet mode is definitely important. Can you explain what it looks like for the system to crashes and then go back to working well? This behavior sounds very odd.

February 28, 2014, 21:11



I'd tried the latest version of the Arduino BGLib code for few days. There is no crash now. If I got the logic analyzer, I will test it. Thanks for you help.

March 4, 2014, 18:40



Can external MCU control the ble112 via SPI (instead of UART)?

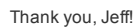
Thanks for any help!

June 23, 2014, 12:22



Only UART and USB can be used for host control (using the BGAPI protocol). SPI slave mode is not possible to use in this way.

June 23, 2014, 15:08



June 23, 2014, 16:01

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