

## Does BLE support SPP to Android device?

Summary: 10 Replies, Latest post by [Jeffalex](#) on 08 Apr 2015 04:28 PM PDT

Verified Answers: 0

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10 Dec 2014 02:18 AM PST

#1

[Orbitcoms](#)



User  
299 posts

I have purchased and received the new BLE kit but have not yet dug into the features or tried to run it up.

Just had a quick question that someone who has already worked with it may be able to answer.

Does the module support SPP and are there any sample Android apps for routines available?

ie. I want to pair smart phone with the PSCO BLE device and transfer serial data in either direction.

I currently do this with an external Sena OEM BT module but would like to investigate lowered cost using the BT built into the new device.

Thanks

10 Dec 2014 12:02 PM PST

#2

[danaaknight](#)



User  
7648 posts

Did you see this -

Normal  
0

false  
false  
false

EN-US  
X-NONE  
X-NONE

MicrosoftInternetExplorer4

```

/* Style Definitions */
table.MsoNormalTable
{mso-style-name:"Table Normal";
mso-tstyle-rowband-size:0;
mso-tstyle-colband-size:0;
mso-style-noshow:yes;
mso-style-priority:99;
mso-style-qformat:yes;
mso-style-parent:"";
mso-padding-alt:0in 5.4pt 0in 5.4pt;
mso-para-margin:0in;
mso-para-margin-bottom:.0001pt;
mso-pagination:widow-orphan;
font-size:11.0pt;
font-family:"Calibri","sans-serif";
mso-ascii-font-family:Calibri;
mso-ascii-theme-font:minor-latin;
mso-fareast-font-family:"Times New Roman";
mso-fareast-theme-font:minor-fareast;
mso-hansi-font-family:Calibri;
mso-hansi-theme-font:minor-latin;
mso-bidi-font-family:"Times New Roman";
mso-bidi-theme-font:minor-bidi;}

```

<http://www.element14.com/community/thread/24844-pioneer-kit-community-project029-bluetooth-home-automation-system>

Regards, Dana.

10 Dec 2014 04:00 PM PST

#3

Undesh



User  
48 posts

SPP is classic BT I believe. There is no such profile for BLE (I think).. You might have to create your own profile similar to SPP.

Does anyone have more info on serial data transfer for BLE?

22 Dec 2014 06:29 AM PST

#4

xmas



User

1 post

Hello,

since 1 month I search for a possibility for SPP over BLE.

For shure there do not exist any service for this ! (not for android, not for iPad)

BLE is not designed for this. You can google for SPP\_over\_BLE .....

Also the most android devices have a lot of problems with the BLE library or they don't have BLE.

21 Jan 2015 03:39 AM PST

#5

hli



User

2521 posts

BLE by design cannot do stream communication. Its designed to transfer only changes in device state, so communication is kept to a minimum. There are ways to emulate something like a serial port, but doing so would completely defeat the low-powe aspects of it.

Maybe google for 'Bluetooth low energy introduction' or 'BLE GATT' to see how BLEs design works.

21 Jan 2015 04:07 AM PST

#6

roit



Cypress  
Employee  
221 posts

As Undesh pointed out, there is no SPP profile for BLE; it is confined to BT Classic (supported profiles by BLE are listed at <https://developer.bluetooth.org/gatt/profiles/Pages>

If you need a similar functionality, you can create a custom profile on your BLE Pioneer kit and use it to send/receive bulk of data from a Client device (such as Android Phone). But please note that Android Phone, by default, will not be able to recognize the profile and will only expose the services and characteristics

associated with your custom profile. You may have to use those APIs to create your own App and complete the system.

04 Feb 2015 07:21 AM PST

#7

Rahul.Garg.Cy



Cypress  
Employee  
21 posts

The "UART\_to\_BLE\_peripheral" project in the attachment works with the CySmart Android app. The firmware has a custom service which acts as a bridge between UART and BLE communication. The project is tested for 115200 baud rate.

Attachments:

 [Download BLE UART without LPM.rar](#)

04 Feb 2015 11:22 AM PST

#8

Rahul.Garg.Cy



Cypress  
Employee  
21 posts

Missed a note.

Make sure to install latest creator version from cypress.com. This project may not work with an older creator version.

25 Feb 2015 06:41 AM PST

#9

julienl



User  
1 post

Hello,

I had the same exact interrogation and your project is really what I needed. I have still one problem left.

I am just beginning developing with PSoC Creator and, as I understand it, I have to connect my UART to P1\_4 and P1\_5 connectors. Am I correct ?

When I do so, I am able to get the BLE Advertising message and BLE Stack Initialized Successfully messages back to my terminal but I cannot send any information to the board.

Do you have, like for some projects, a photo describing your environment ?

I can provide one of our environment if needed.

Best Regards,

Julien

01 Mar 2015 05:18 AM PST

#10

Rahul.Garg.Cy



Cypress  
Employee  
21 posts

Julian,

I have updated the UART\_BLE project (please see attached). I have also attached a user guide for the set up.

1. For your application, I don't think you need flow control, so please ,make sure that the RTS/CTS is unchecked (as shown in attached image) in the UART configuration window. The FLOW\_CONTROL macro in main.h should also be commented.
2. Also make sure that P1[4] and P1[5] are selected for UART RX/TX respectively.

Let me know if you still face some problem.

Regards,

Rahul

Attachments:

 [Download BLE UART.rar](#)

08 Apr 2015 04:28 PM PDT

#11

Jeffalex



User

Hi Rahul-

I've tried to get this example to work on the Pioneer Kit (focusing on the Central side for now), for some reason I don't get the UART debug messages. I'm using the kit CY8CKIT "out of the box" and can compile and load the project but don't see anything on the kit's COM port.

1 post

Does the code run on the kit "out of the box" on the UART created by the programming/debug USB port or does it need modification / another UART? (I feel like I'm missing something).

I've tried disabling the flow control (both in the UART properties and the main.h) but that doesn't seem to help.