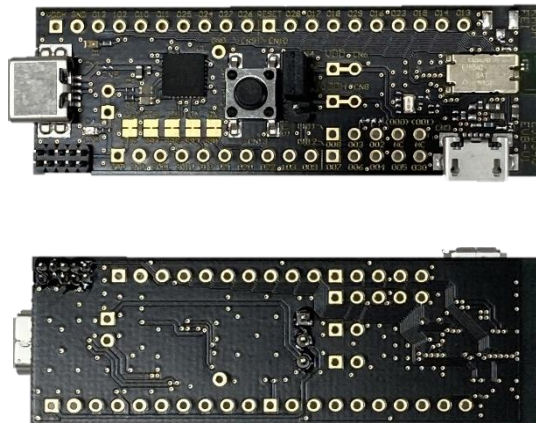


EVALUATION BOARD MANUAL EJ5340BA1-EVB

EVALUATION KIT MANUAL EJ5340BA1-EVK

for EJ5340 Series Bluetooth[®] low energy Module

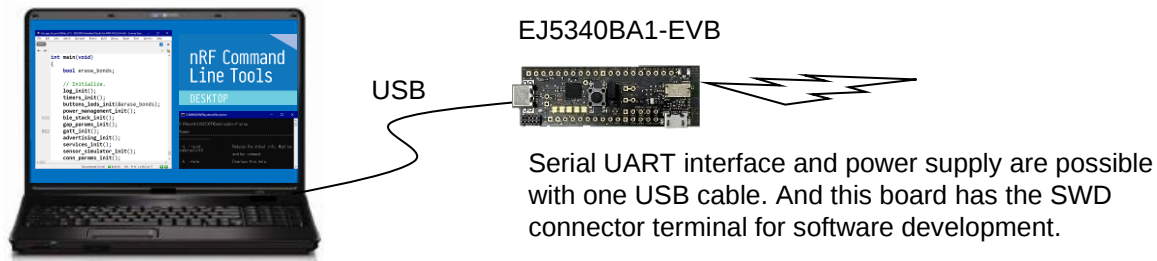


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1. Introduction

This evaluation board is applicable for KAGA FEI's **Bluetooth® low energy** module, EJ5340 Series.



2. Mounted module

EJ5340 (5.1mm x 11.3mm x 1.3mm MAX)



Nordic nRF5340

/ ARM® Cortex™-M33 32 bit processor and 1MB Flash & 512KB RAM

/ ARM® Cortex™-M33 32 bit processor and 256KB Flash & 64KB RAM

49-pin Land Grid Array / 33 GPIOs / SWD

- Basic Module -

The user can develop unique application for the module.

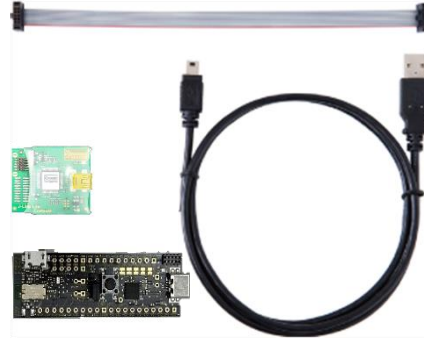
3. Content

1	EJ5340BA1-EVB Evaluation Board + USB cable for Evaluation Board	1 pc
2	J-Link Lite (EJ5340BA1-EVK Only) + USB cable for Evaluation Board *1	1 set

1. EJ5340BA1-EVB



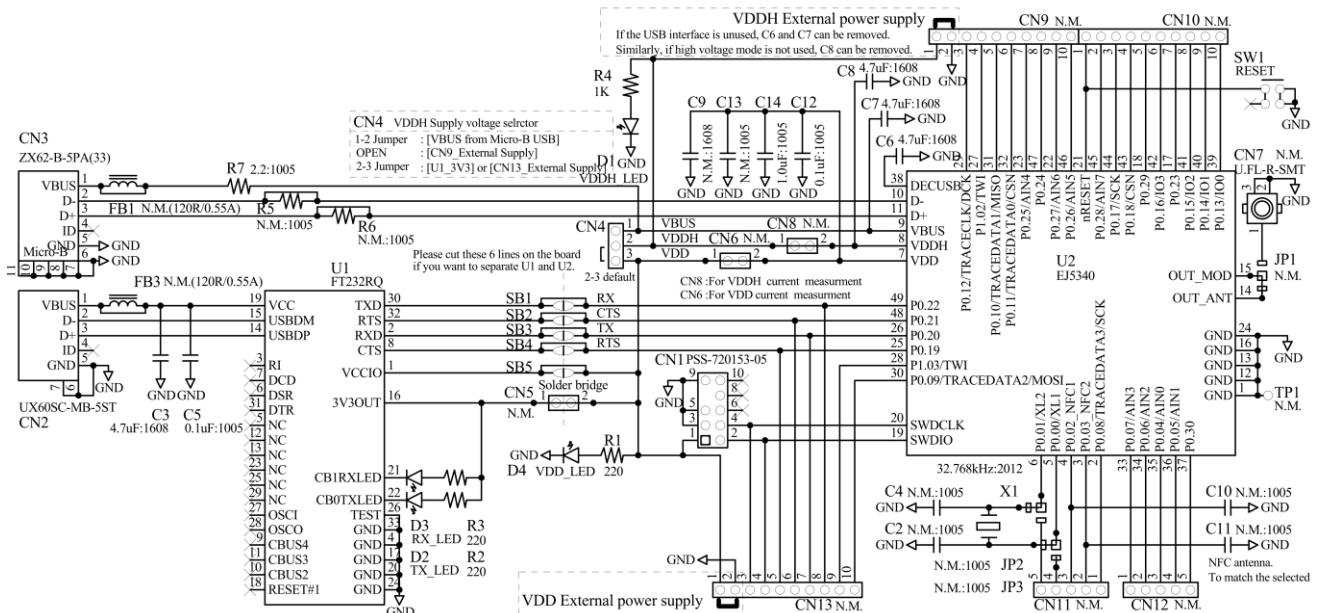
2. EJ5340BA1-EVK



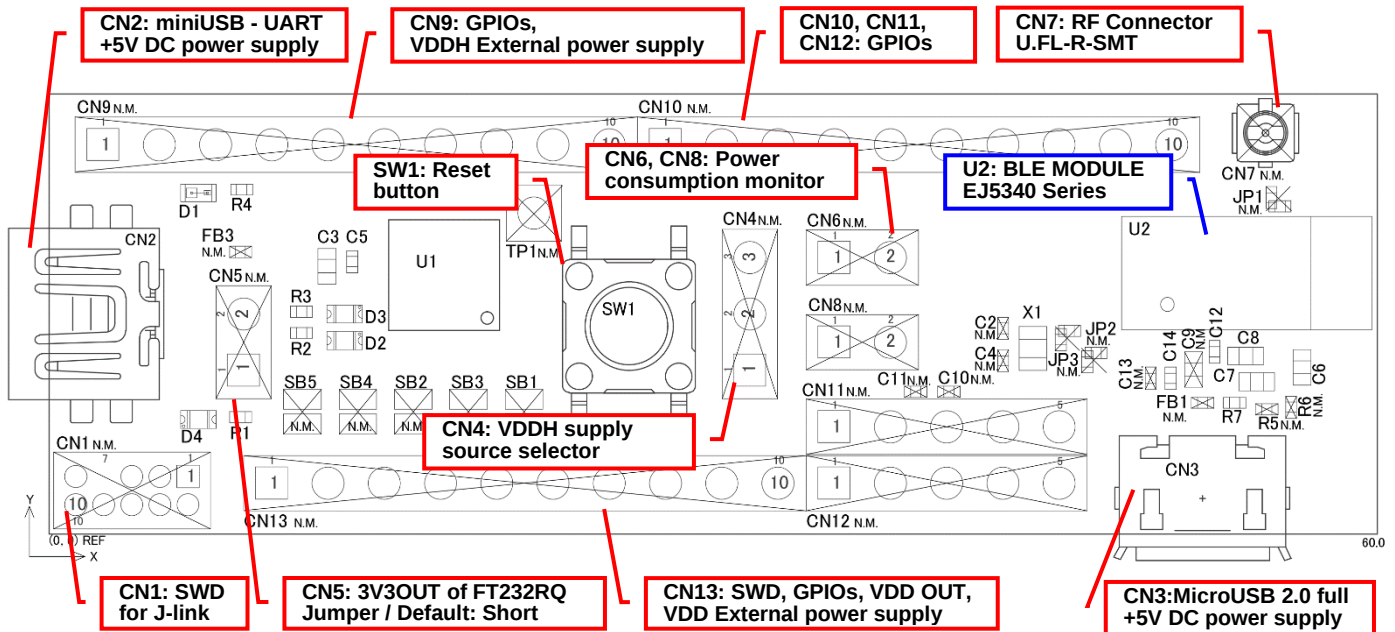
*1 Notes on using J-Link Lite

J-Link Lite is only delivered and supported as part of an evaluation kit, which includes an evaluation board. It may only be used with the evaluation board it came with, and not to be used for commercial product development.

4. Evaluation board circuit schematic

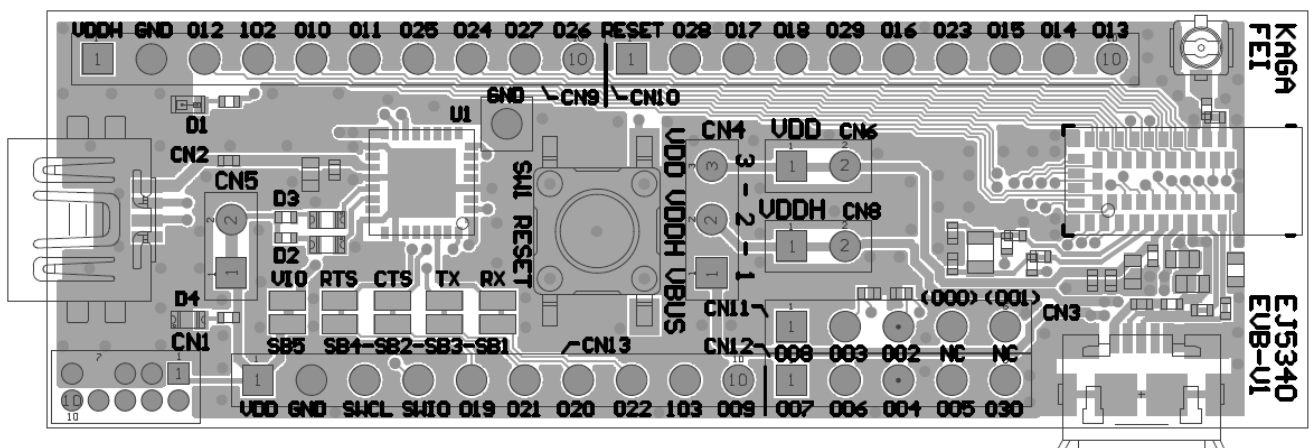


5. Evaluation board layout



- 1) All pin headers are 2.54mm pitch. And **CN9 - CN13** are on the **2.54mm grid**.
- 2) Many parts are not mounted. Please refer to (N.M.) in the circuit schematic.
- 3) **D1 (LED)**: VDDH Indicator, **D4(LED)**: VDD Indicator
- 4) **D2 (LED)**: UART TX Indicator
- 5) **D3 (LED)**: UART RX Indicator
- 6) **SW1 (Push button)**: Module Reset (active low)

6. Silkscreen Printing



7. Pin Descriptions

Pin No.	CN9	CN10	CN11
1	VDDH	RESET	P0.08/ TRACEDATA3/ SCK
2	GND	P0.28/ AIN7	P0.03/ NFC2
3	P0.12/ TRACECLK/ DCX	P0.17/ SCK	P0.02/ NFC1
4	P1.02/ TWI	P0.18/ CSN	NC
5	P0.10/ TRACEDATA1/ MISO	P0.29	NC
6	P0.11/ TRACEDATA0/ CSN	P0.16/ IO3	-
7	P0.25/ AIN4	P0.23	-
8	P0.24	P0.15/ IO2	-
9	P0.27/ AIN6	P0.14/ IO1	-
10	P0.26/ AIN5	P0.13/ IO0	-

Pin No.	CN12	CN13
1	P0.07/ AIN3	VDD
2	P0.06/ AIN2	GND
3	P0.04/ AIN0	SWDCLK
4	P0.05/ AIN1	SWDIO
5	P0.30	P0.19
6	-	P0.21
7	-	P0.20
8	-	P0.22
9	-	P1.03/ TWI
10	-	P0.09/ TRACEDATA2/ MOSI

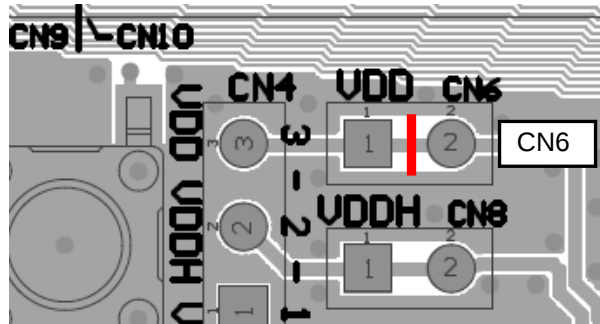
8. How to use

It is very easy just to tie this board to the PC with a USB cable. It is not necessary to change the setting of the board. The power supply of the module supplies by default 3.3V from 3V3OUT of FT232RQ.

10. MEMO

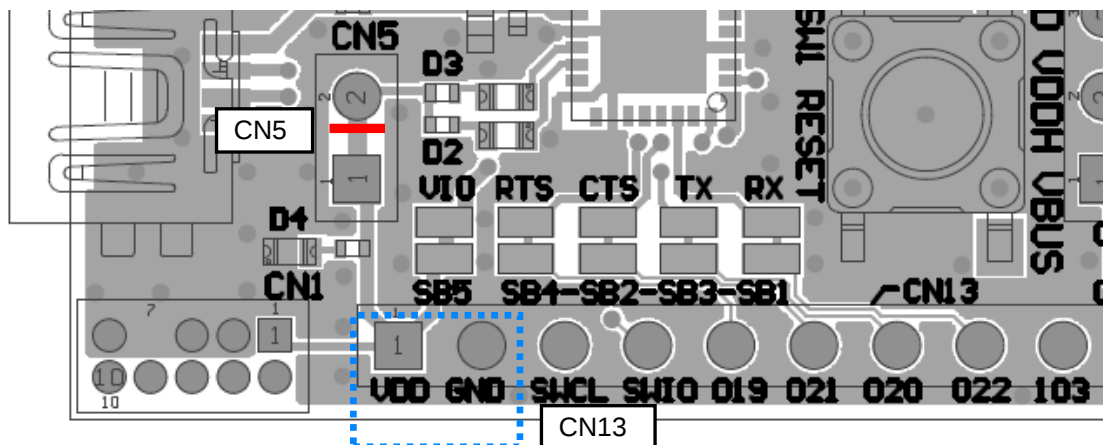
1) **Current measurement**

To measure VDD current, please cut the shorting 1pin and 2 pin of CN6. And connect an ampere-meter between the pins of connector CN6 to monitor the current directly.



2) **About VDD power supply**

When you use external power supply, please supply power from 1pin and 2pin of CN13. On this case, you cut short circuit 1pin and 2pin of CN5 and should separate 3V3OUT of FT232RQ.



3) **USB to serial UART interface**

It needs to install driver of FT232RQ to use USB for UART interface. The drivers are available on FTDI website.

<http://www.ftdichip.com/Drivers/D2XX.htm>

In addition, by the application development, please assign GPIO as follows.

GPIO	UART
P0.19	RTS
P0.20	TX
P0.21	CTS
P0.22	RX

4) Size and Coordinate information

