

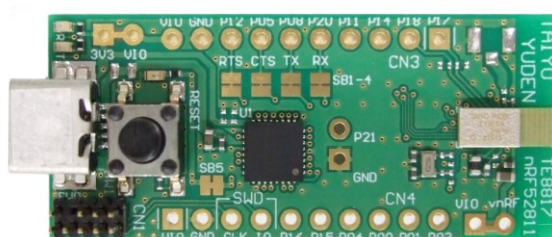
EVALUATION BOARD MANUAL

EBSNSN Series

EVALUATION KIT MANUAL

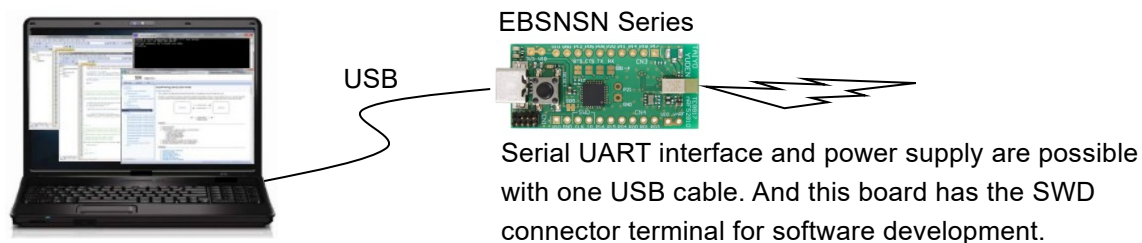
EKSNSN Series

for EYSNSN Series Bluetooth[®] low energy Module



Introduction

This evaluation board is applicable for Taiyo Yuden's **Bluetooth® low energy** module, EYSNSN Series.



Mounted module

EYSNSN (8.55mm x 3.25mm x 1.00mm_MAX)



Nordic nRF52811 / ARM® Cortex™-M4 32 bit processor
28-pin Land Grid Array / 15GPIOs / SWD

- Basic Module -
EYSNSNZWW

Taiyo Yuden writes firmware for (EYSNSNZWW) SoftDevice to this product.
The user can develop unique application for the module.

Content

1	EBSNSN Series Evaluation Board	1 pc
2	J-Link Lite (EKSNSN Series Only)	1 set

1. EBSNSN

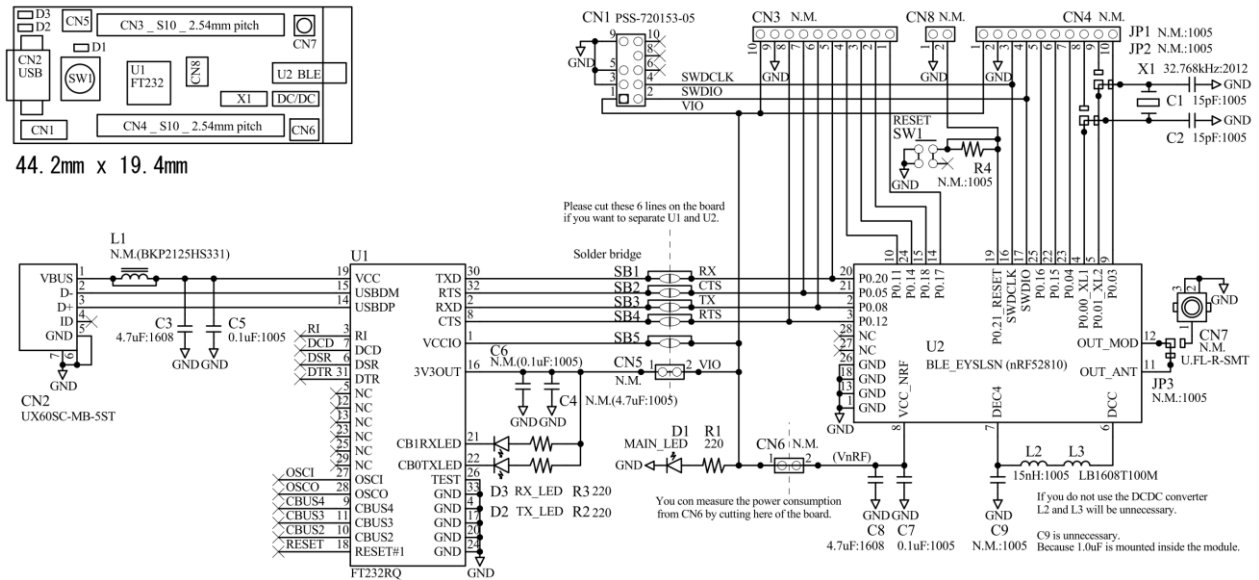


2. EKSNSN

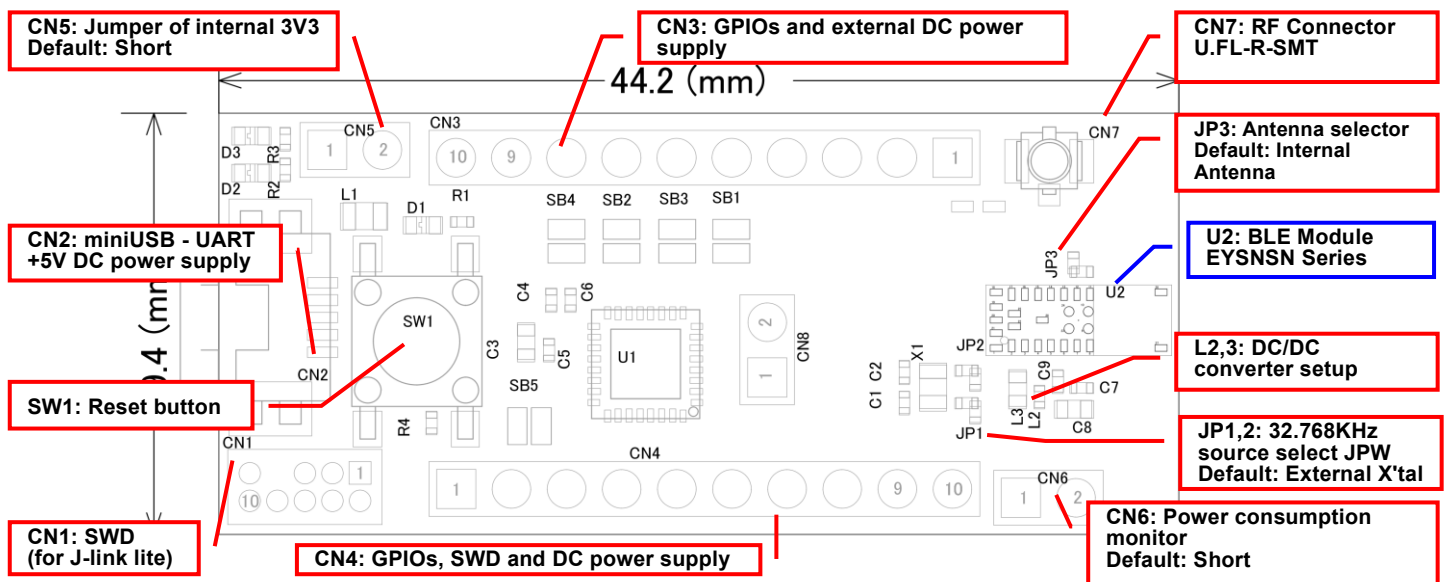


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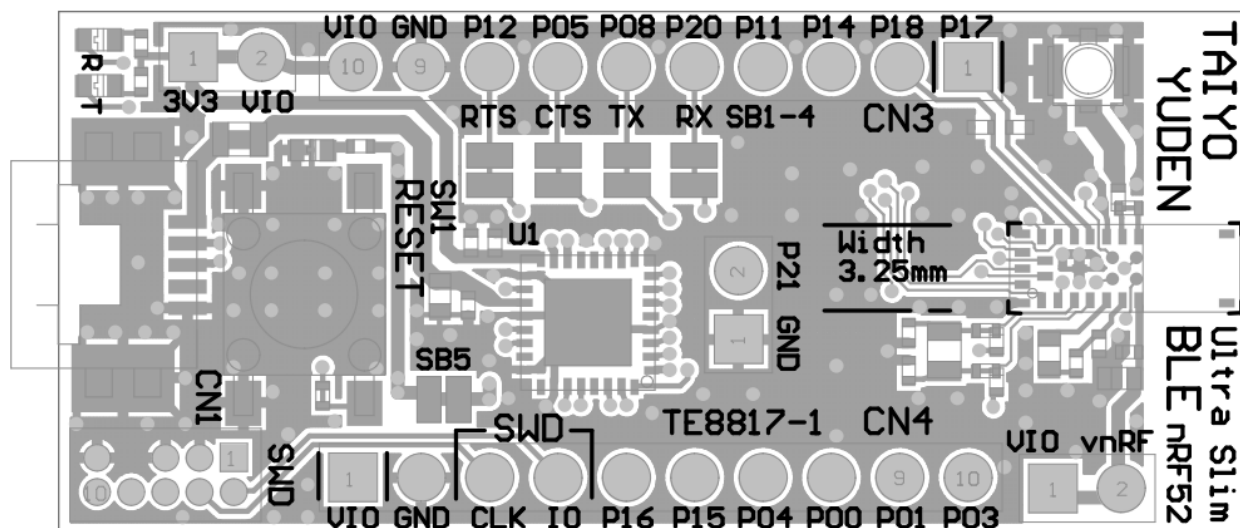
Evaluation board circuit schematic



Evaluation board layout



- 1) All pin headers are 2.54mm pitch. And distance between **CN3** and **CN4** is **15.24mm**.
- 2) **CN3-CN8, C4, C6, C9, R4, L1, JP1-JP3, SB1-5** are not mounted (N.M.).
- 3) **D1 (LED):** 3.3V Indicator
- 4) **D2 (LED):** UART TX Indicator
- 5) **D3 (LED):** UART RX Indicator
- 6) **SW1 (Push button):** Module Reset (active low)

Silkscreen PrintingPin Descriptions

Pin No.	CN3	CN4	CN8
1	P0.17	VIO	GND
2	P0.18	GND	P0.21/RESET
3	P0.14	SWDCLK	
4	P0.11	SWDIO	
5	P0.20	P0.16	
6	P0.08	P0.15	
7	P0.05	P0.04	
8	P0.12	P0.00	
9	GND	P0.01	
10	VIO	P0.03	

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.

For software development

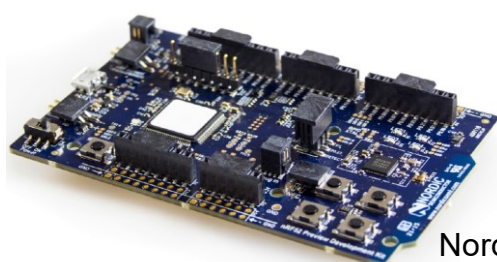
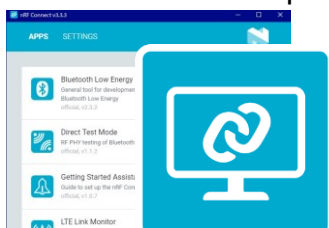
Nordic-DK and Use case



- SEGGER Embedded Studio



- nRF Connect for Desktop



Nordic-DK

<http://www.nordicsemi.com/eng/Products/Bluetooth-low-energy/nRF52-DK>

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Nordic nRF Connect
etc.



NORDIC DK



EBSNSN Series

miniUSB

SWD

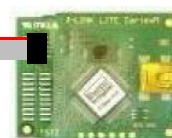
SWD : Serial Wire Debug
For example, please use J-Link Lite
CortexM-9 JTAG/SWD Emulator.
EKSNSN included



CN1 supports the connection of the
10 pin 1.27 mm flat cable.



Please be careful about
the directions.

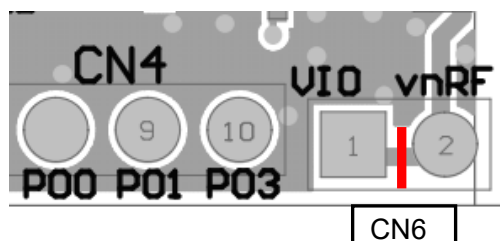


etc.

MEMO

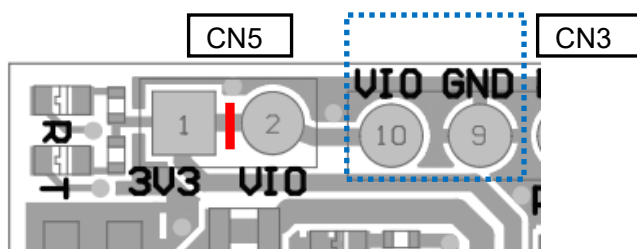
1) Current measurement

To measure the 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 the power supply of the module

When you use external power supply, please supply power from 9pin and 10pin of CN3. On this configuration, you cut short circuit 1pin and 2pin of CN5 and should separate 3V3OUT of FT232RQ.



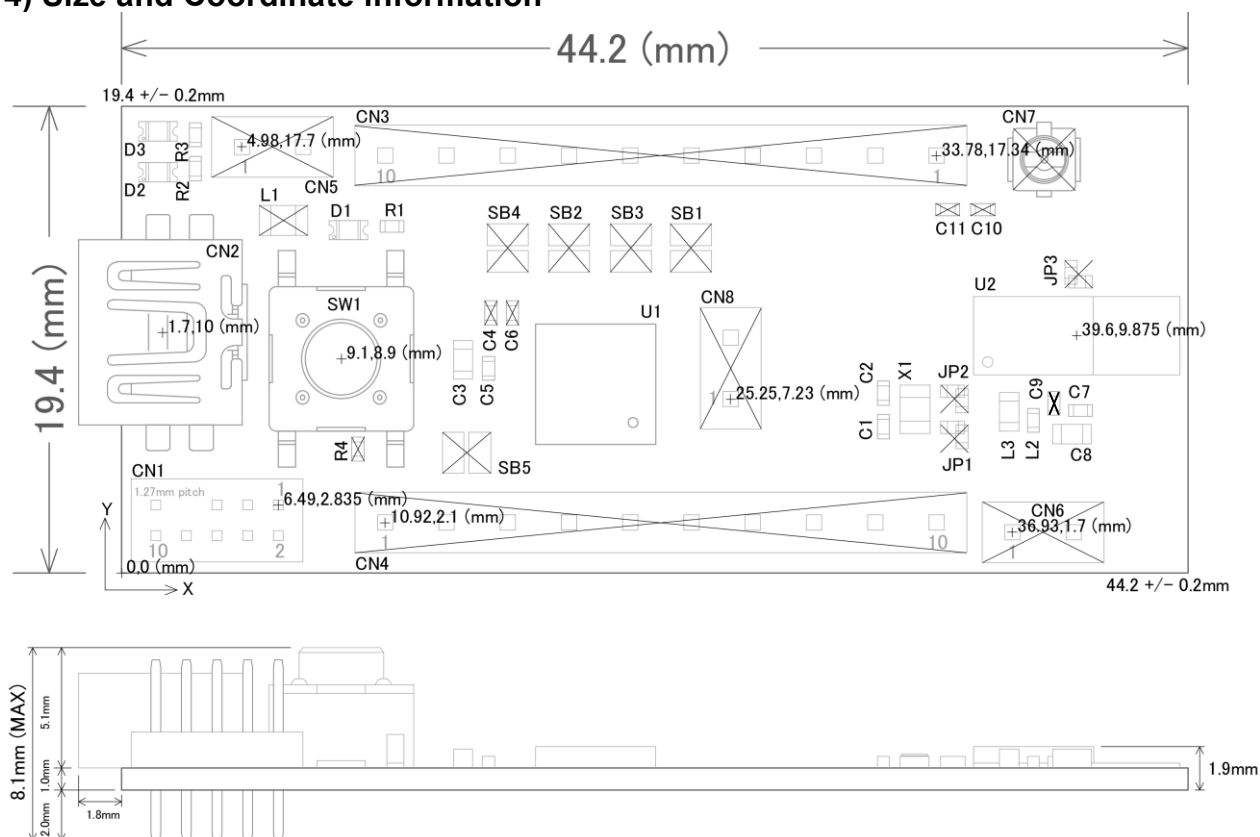
3) USB to serial UART interface

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
P0.12	RTS
P0.08	TX
P0.05	CTS
P0.20	RX

4) Size and Coordinate information

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Kaga FEI:](#)

[EBSNSNZWW](#) [EKSNSNZWW](#)