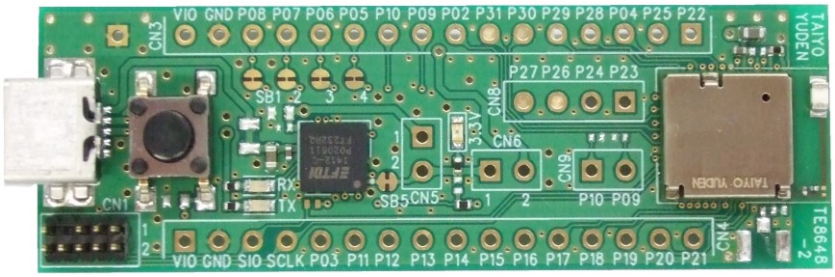
EVALUATION BOARD MANUAL
EBSNCN Series

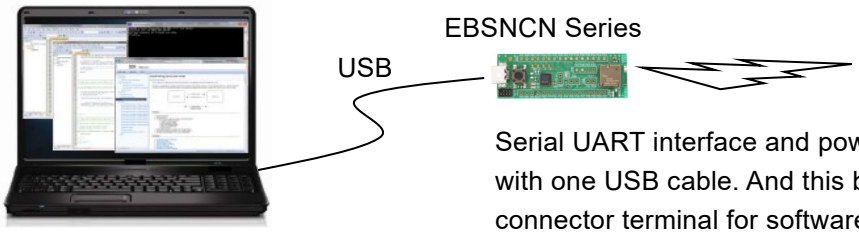
EVALUATION KIT MANUAL
EKSNCN Series

for EYSNCN series Bluetooth® low energy Module



Introduction

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



Serial UART interface and power supply are possible with one USB cable. And this board has the SWD connector terminal for software development.

Mounted module

EYSNCN Series (9.6mm x 12.9mm x 2.0mm_MAX)



Nordic nRF52811 / ARM® Cortex™-M4 32 bit processor
49-pin Land Grid Array / 30GPIOs / SWD

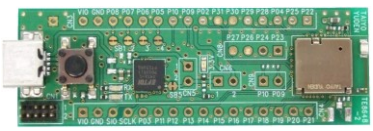
- Basic Module –

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

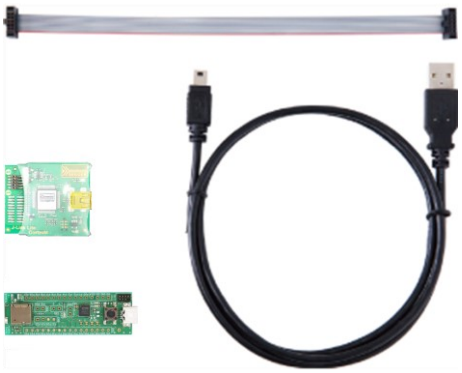
Content

1	EBSNCN Series Evaluation Board (PCB name_TE8648-2)	1 pc
2	J-Link Lite (EKSNCN Series Only)	1 set

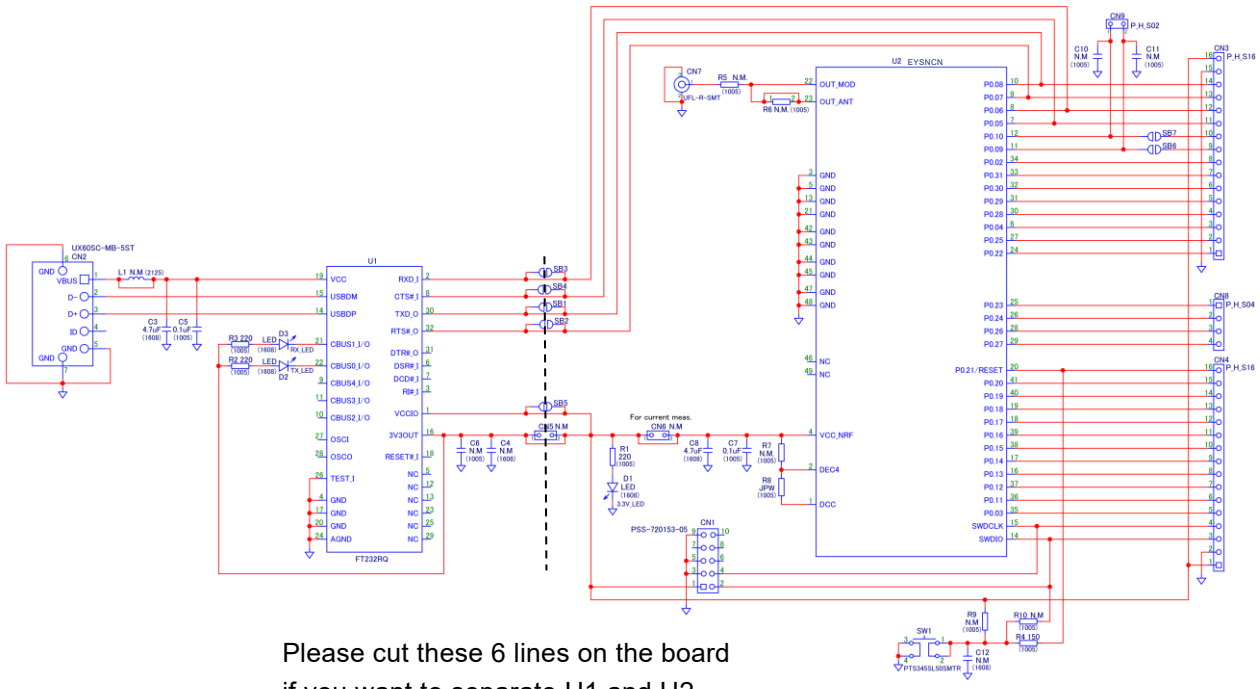
1. EBSNCN



2. EKSNCN

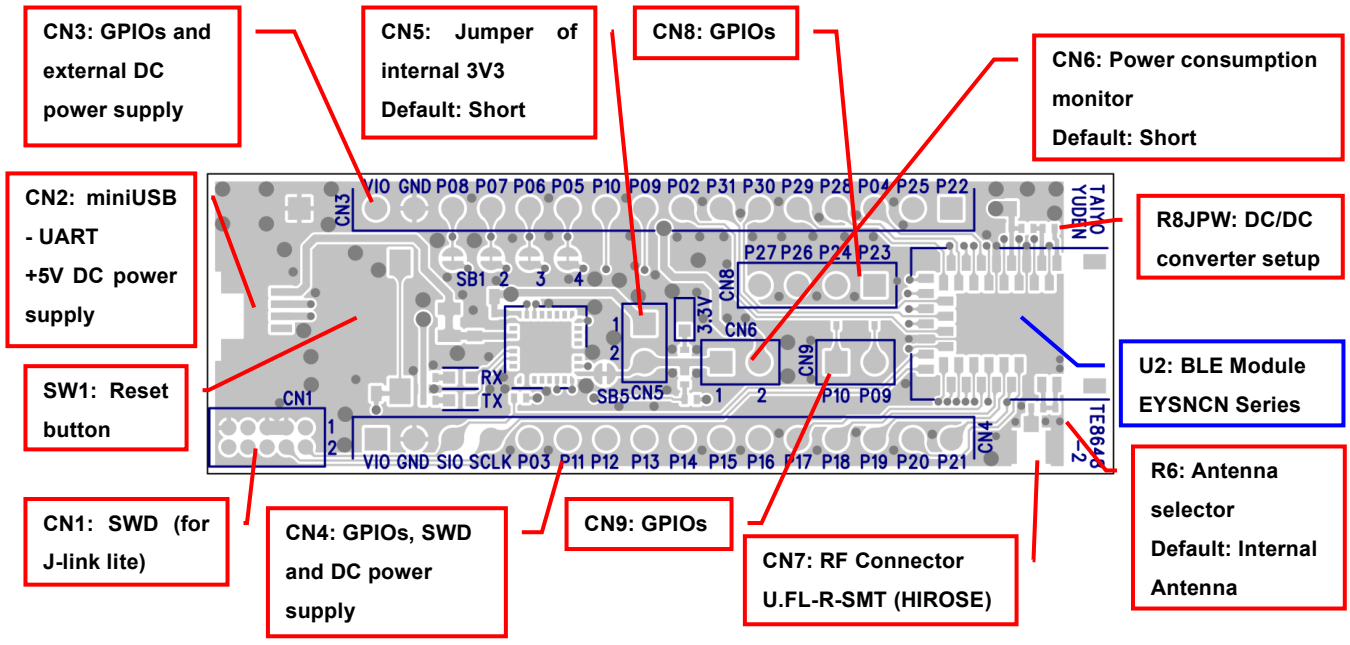


Evaluation board circuit schematic



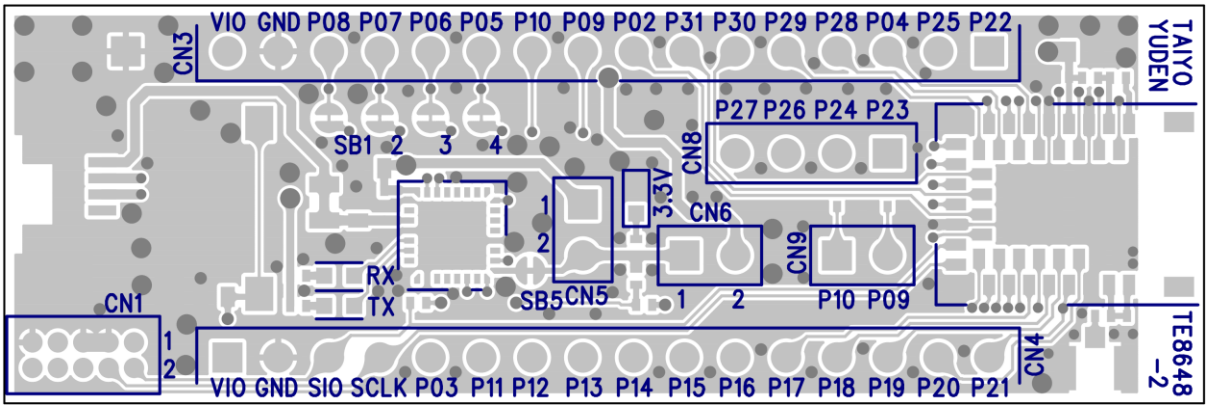
Please cut these 6 lines on the board
if you want to separate U1 and U2.

Evaluation board layout



1) All pin headers are 2.54mm pitch. And distance between **CN3** and **CN4** is **15.24mm**.
2) CN3,4,5,6,8, C4,6,10-12, L1, R5-7,9,10, SB1-7, TP1 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 Printing



Pin Descriptions

Pin No.	CN3	CN4	CN8
1	P0.22	VIO	P0.23
2	P0.25	GND	P0.24
3	P0.04	SWDIO	P0.26
4	P0.28	SWDCLK	P0.27
5	P0.29	P0.03	
6	P0.30	P0.11	
7	P0.31	P0.12	
8	P0.02	P0.13	
9	P0.09	P0.14	
10	P0.10	P0.15	
11	P0.05	P0.16	
12	P0.06	P0.17	
13	P0.07	P0.18	
14	P0.08	P0.19	
15	GND	P0.20	
16	VIO	P0.21/RESET	

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





Nordic nRF Connect etc.



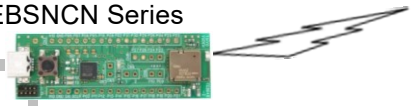
NORDIC DK



EBSNCN Series

miniUSB

SWD





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

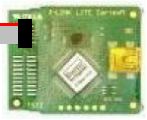




CN1 supports the connection of the 10 pin 1.27 mm flat cable.



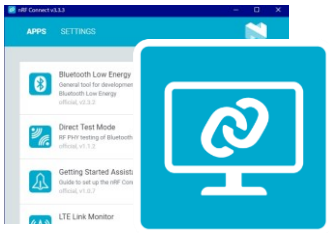
Please be careful about the directions.



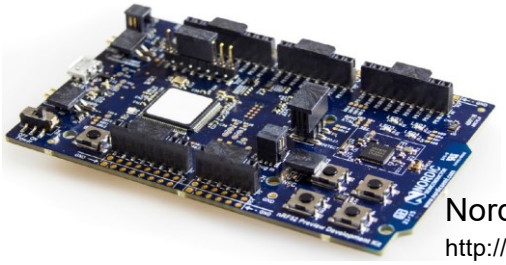
・SEGGER Embedded Studio



・nRF Connect for Desktop



etc.

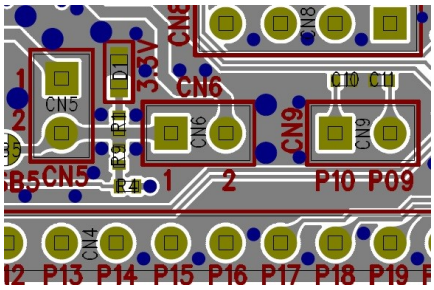


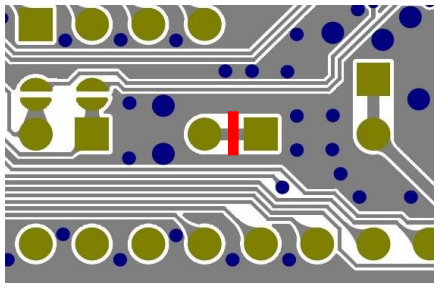
Nordic-DK
http://www.nordicsemi.com/eng/Products/Bluetooth-low-energy/nRF52-DK

MEMO

1) Current measurment

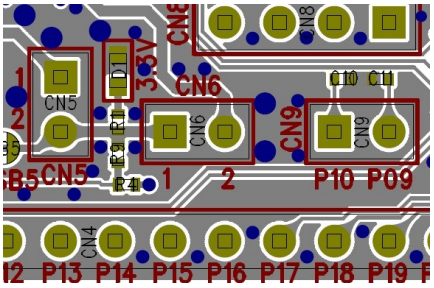
To measure the current, please cut the shorting 1pin and 2 pin of CN6. And connect an ampere-meter between the pins of connector CN6 to monitor the current directly.

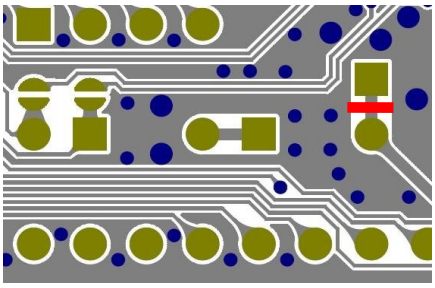




2) About the power supply of the module

When you use external power supply, please supply power from 15 and 16pin of CN3. On this configuration, please cut the short circuit 1pin and 2pin of CN5 in order to separate 3V3OUT of FT232RQ.





3) USB to serial UART interface

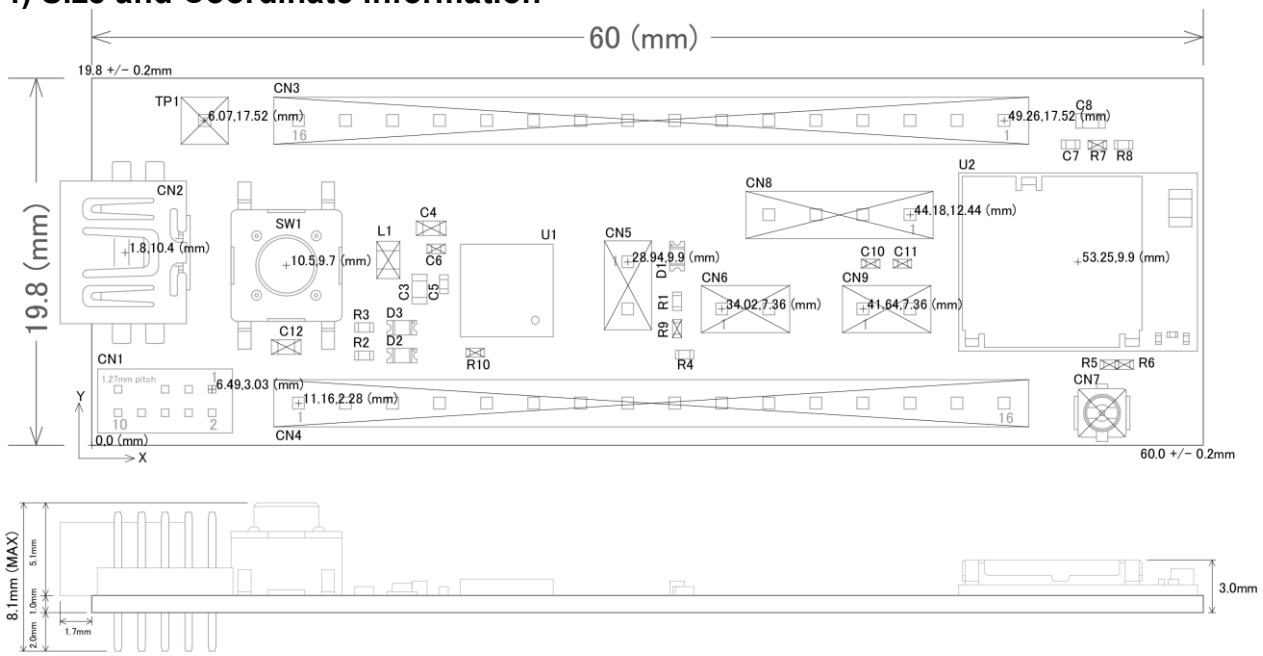
It needs to install driver of FT232RQ to use USB for UART interface.
The drivers are available on FTDI website.

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

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

GPIO	UART
P0.05	RTS
P0.06	TX
P0.07	CTS
P0.08	RX

4) Size and Coordinate information



Mouser Electronics

Authorized Distributor

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

Kaga FEI:

EBSNCNZWW EKSNCNZWW