Testmode Config Pin Setting

Overview

```
DL_EN ──── LOW (GND) ──────────────────────────── Download Mode For WIFI(GPS)
      │
      │ NC
      │
   I2C DBG ──── Use or Not Use (Pull Up or NC) ──── Normal Mode
        │
        │ SCL : NC or Low      GPIOs
        │ SDA : High           0: STATE0 ──── 0:NC or Low ──── Not Assigned
        │                      1: WKUP        1:NC or Low
        │                                 ──── 0:NC or Low ──── BLE DTM
        │                                      1:High
        │                                 ──── 0:High ──── WIFI Test
        │                                      1:NC or Low
        │                                 ──── 0:High ──── Not Assigned
        │                                      1:High
        │
        │ SCL : NC or Low
        │ SDA :  High
        └──────────────────────────────────────── Not Assigned
```
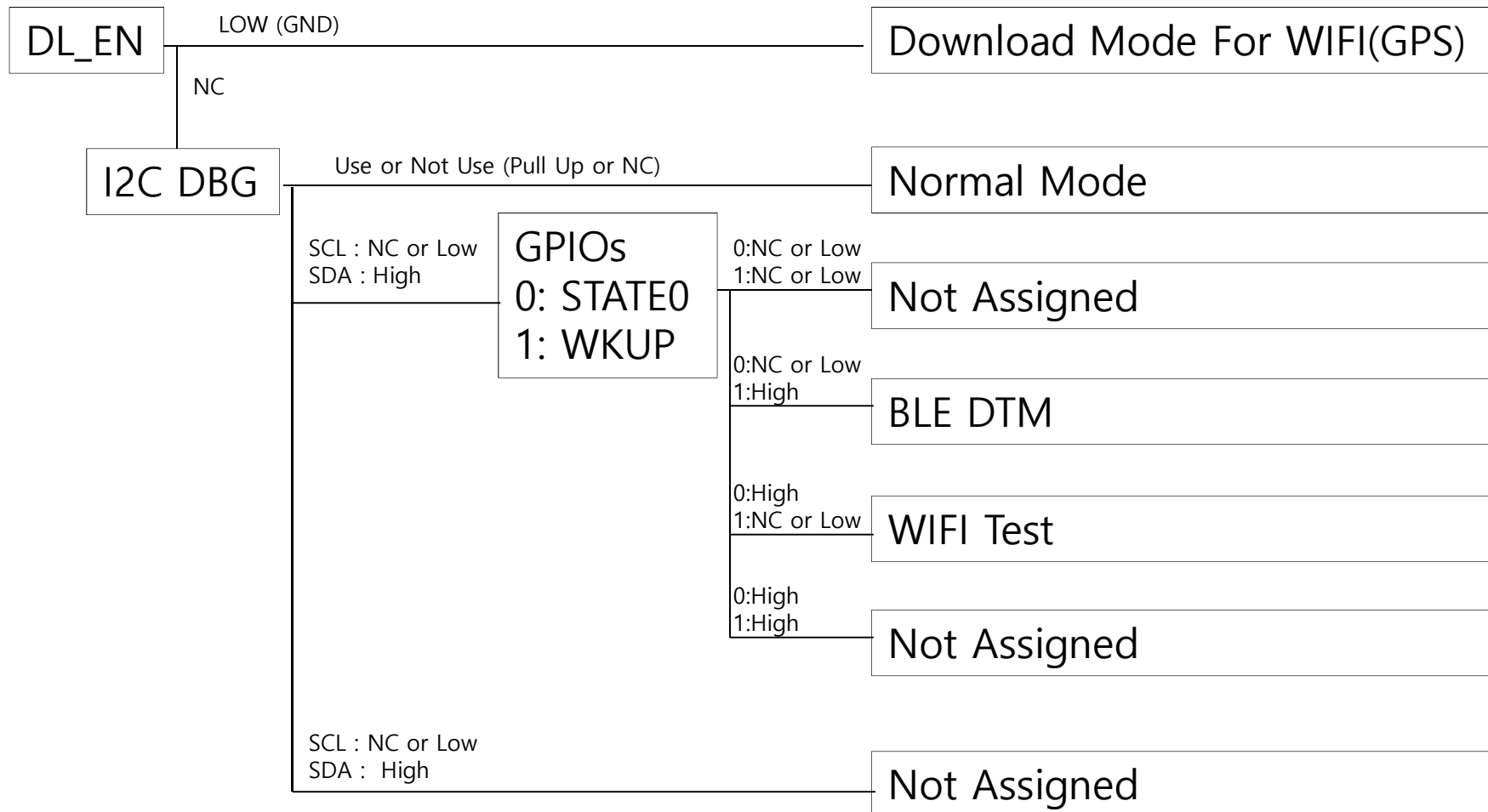
Module Interface configuration

J-Link

USB2Serial

JTAG(SWD)

UART_BLE (BLE DTM only RX: AIN0 TX:AIN1)

GPIO (P0.02/AIN0, P0.03/AIN1)

ACC

I2C

BLE

SPI

WIFI

UART

UART_WIFI

DL_W
(DL_EN/INT_WIFI)

Sigfox

UART

SPI

GPS

UART

UART_GPS

DL_G – CSR only
(TP4 (57 DL_EN))

GPIO
[P0.20, P0.18]

I2C

Reset(NRST)

Config
(WKUP/P0.20,
STATE0/P0.18)

I2C_DBG (I2C0_SCL_DBG, I2C0_SDA_DBG)

I2C2USB
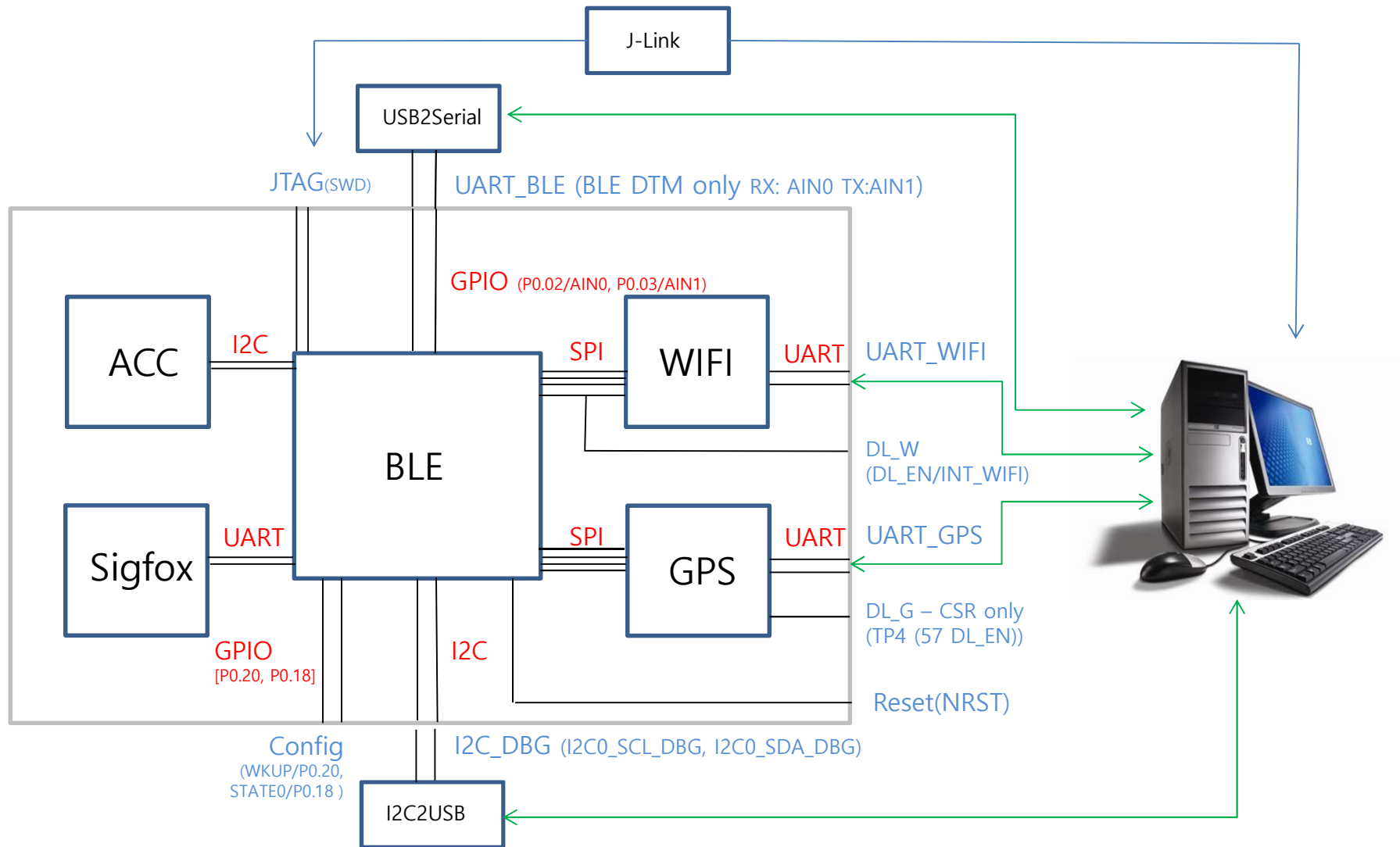
Boot Strap Pin Configuration

Main Boot Strap Pins
1. 47 DL_EN/INT_WIFI : Download mode control (GND or NC)
2. 22 I2C0_SCL_DBG : Bootmode control #1
3. 21 I2C0_SDA_DBG : Bootmode control #2

47 DL_EN/INT_WIFI	22 I2C0_SCL_DBG	21 I2C0_SDA_DBG	23 STATE0	24 WKUP	MODE
LOW (GND)	don't care	don't care	don't care	don't care	download mode
NC	HIGH (PULL UP)	HIGH (PULL UP)	don't care	don't care	Working
NC	NC	NC	don't care	don't care	Working
NC	LOW or NC	HIGH	LOW or NC	LOW or NC	not assigned
NC	LOW or NC	HIGH	LOW or NC	HIGH	BLE Test(DTM, UART RX:40 AIN0 TX:39 AIN1)
NC	LOW or NC	HIGH	HIGH	LOW or NC	WIFI Test(always on)
NC	LOW or NC	HIGH	LOW or NC	LOW or NC	not assigned
NC	HIGH	LOW or NC	-	-	not assigned

WIFI/GPS Download Mode
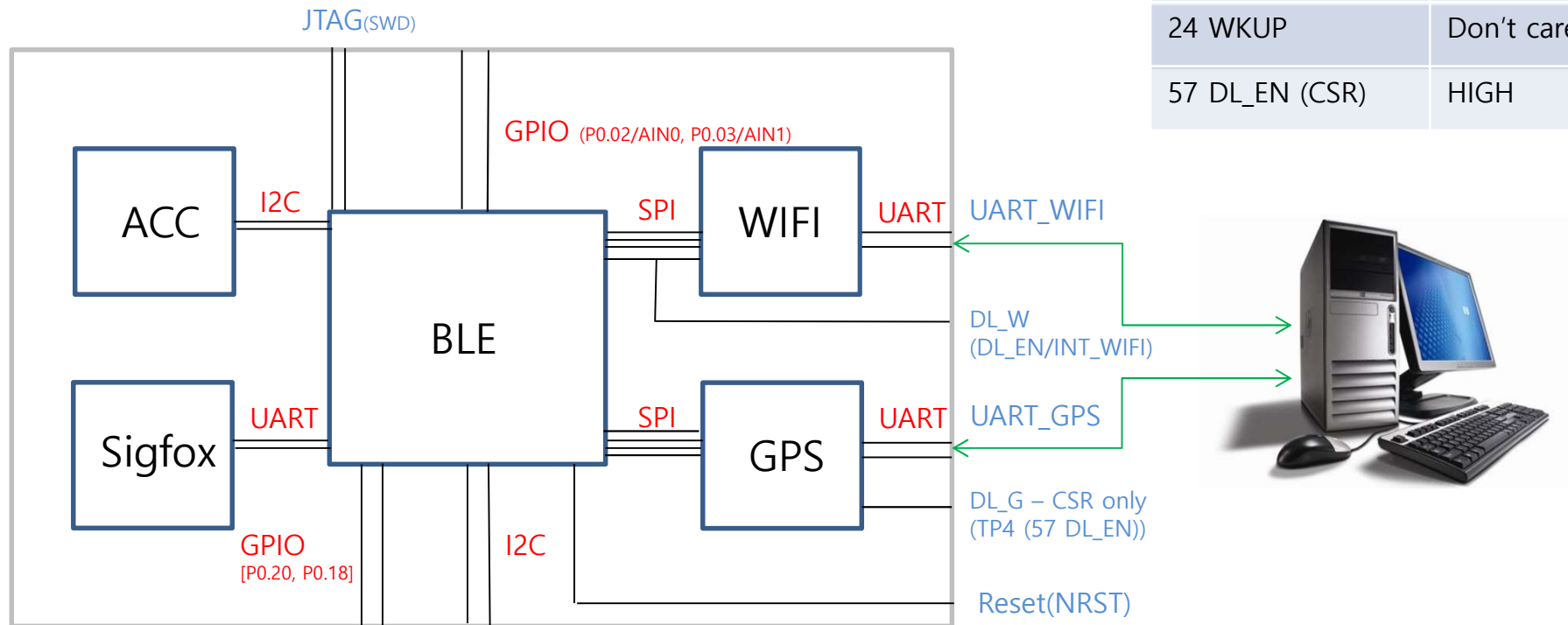
Pin	State
47 DL_EN/INT_WIFI	Low (GND)
22 I2C0_SCL_DBG	Don't care
21 I2C0_SDA_DBG	Don't care
23 STATE0	Don't care
24 WKUP	Don't care
57 DL_EN (CSR)	HIGH

JTAG(SWD)

GPIO (P0.02/AIN0, P0.03/AIN1)

ACC

I2C

WIFI

SPI

UART

UART_WIFI

BLE

DL_W
(DL_EN/INT_WIFI)

Sigfox

UART

SPI

GPS

UART

UART_GPS

DL_G – CSR only
(TP4 (57 DL_EN))

GPIO
[P0.20, P0.18]

I2C

Reset(NRST)
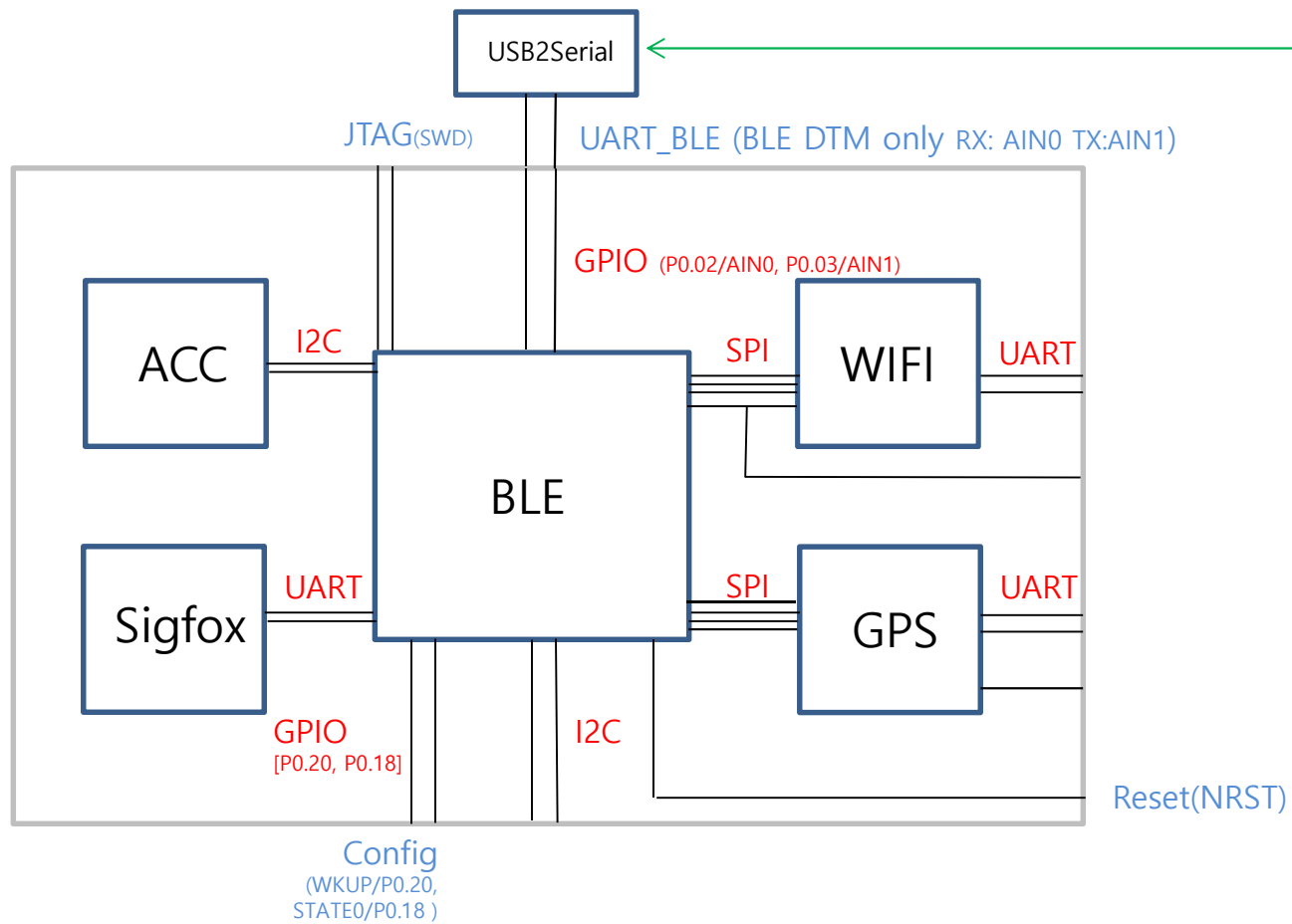
BLE Test Mode

Pin	State
47 DL_EN/INT_WIFI	NC
22 I2C0_SCL_DBG	LOW
21 I2C0_SDA_DBG	HIGH
23 STATE0	LOW
24 WKUP	HIGH
57 DL_EN (CSR)	NC

USB2Serial

JTAG(SWD)

UART_BLE (BLE DTM only RX: AIN0 TX:AIN1)

GPIO (P0.02/AIN0, P0.03/AIN1)

ACC — I2C — BLE — SPI — WIFI — UART

Sigfox — UART — BLE — SPI — GPS — UART

GPIO [P0.20, P0.18]

I2C

Reset(NRST)

Config (WKUP/P0.20, STATE0/P0.18)
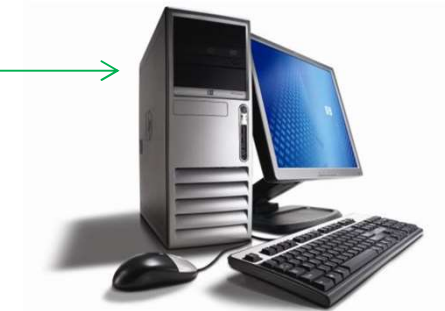
WIFI Test mode (WIFI always on)
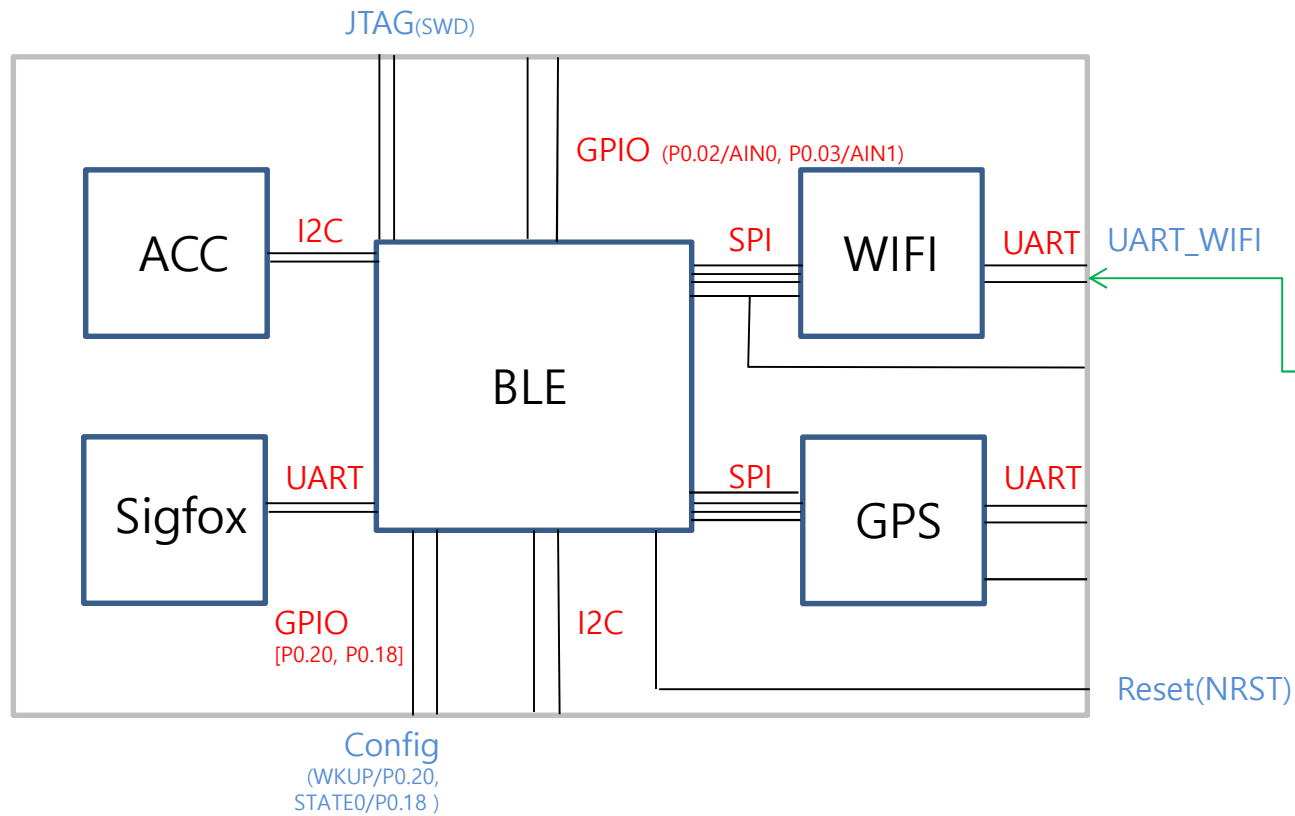
Pin	State
47 DL_EN/INT_WIFI	NC
22 I2C0_SCL_DBG	LOW
21 I2C0_SDA_DBG	HIGH
23 STATE0	HIGH
24 WKUP	LOW
57 DL_EN (CSR)	NC

JTAG(SWD)

GPIO (P0.02/AIN0, P0.03/AIN1)

ACC — I2C — BLE — SPI — WIFI — UART — UART_WIFI

Sigfox — UART — SPI — GPS — UART

GPIO [P0.20, P0.18]

I2C

Reset(NRST)

Config (WKUP/P0.20, STATE0/P0.18)
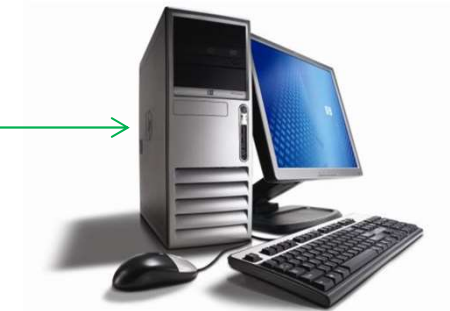
Work Mode (for PC Tool)

Mode Change by PC Tool
1. Sigfox bypass mode : Sigfox Test
2. GPS Test mode : GPS Test
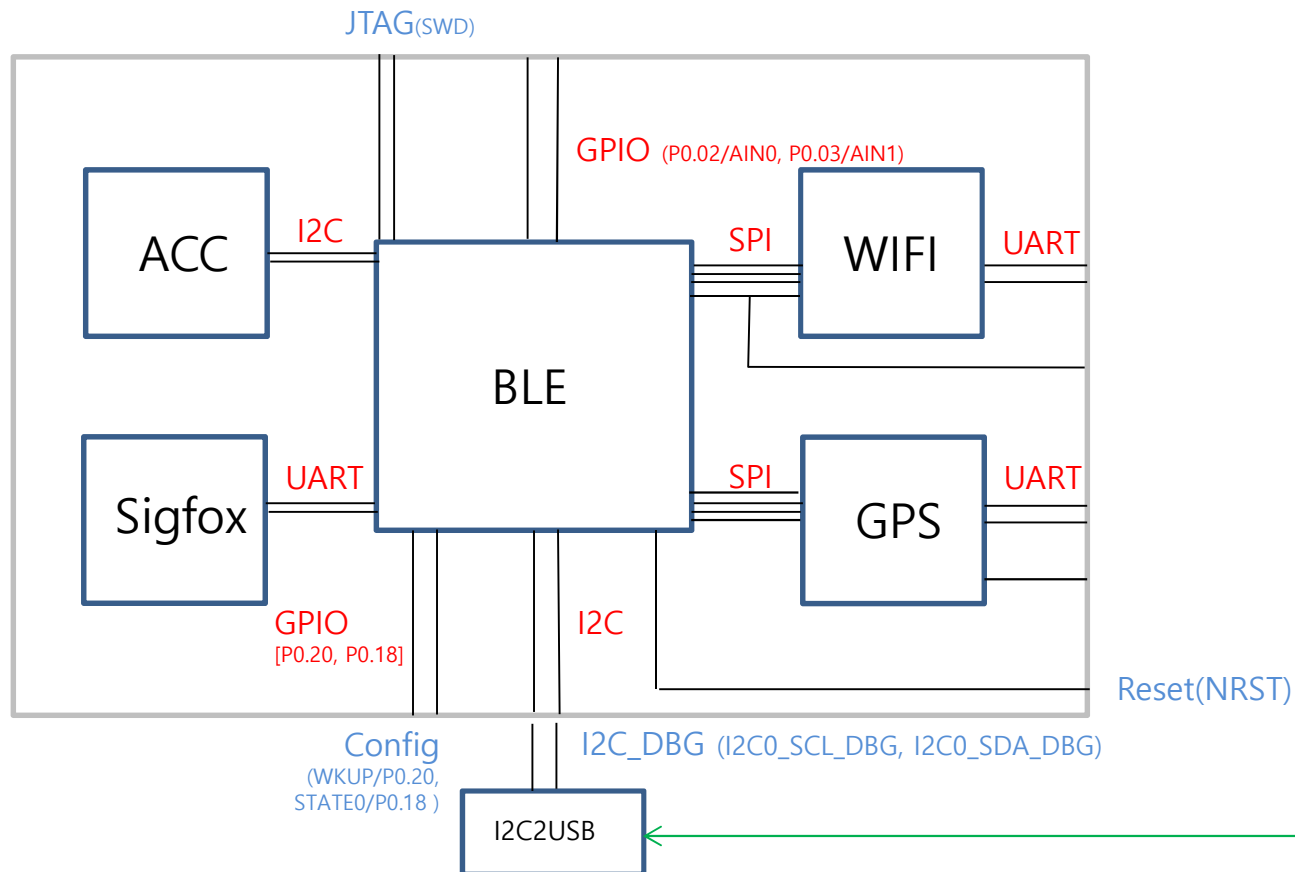
Pin	State
47 DL_EN/INT_WIFI	NC
22 I2C0_SCL_DBG	Use I2C
21 I2C0_SDA_DBG	
23 STATE0	Don't care
24 WKUP	Don't care
57 DL_EN (CSR)	NC