Project Configuration Report
106_firmware_efr32

Target Device:

Target Part: EFR32FG23A020F512GM48
Boards:

Target SDK

Gecko SDK Suite v4.3.1: Amazon 202012.00, Bluetooth 6.1.0, Bluetooth Mesh 5.0.1, EmberZNet 7.3.1.0, Flex 3.6.1.0, MCU 6.5.1.0, Micrium OS Kernel 5.14.00, OpenThread 2.3.1.0 (GitHub-e6df00dd6), Platform 4.3.1.0, USB 1.1.2.0, Wi-SUN 1.7.0.0, Z-Wave SDK 7.20.1.0
SDK Version: 4.3.1

Project Generators

• Simplicity IDE Project

Installed Software Components:

• Application

  - *Utility*

    Assert
    Configurable: true
    Configs: app_assert_config.h

    Log
    Sources: app_log.c
    Configurable: true
    Configs: app_log_config.h

• Flex

  - *RAIL*

    • Utility

      Flex - RAIL Packaging Assistant
      Sources: sl_flex_rail_package_assistant.c, sl_flex_rail_package_assistant_cli.c
      Configurable: true
      Configs: sl_flex_rail_package_assistant_config.h

      Flex - RAIL Standard packet assembler
      Sources: sl_flex_packet_asm.c
      Configurable: false

      Simple RAIL Stub
      Configurable: false

- **Platform**
  - *Device*
    - EFR32FG23

      EFR32FG23A020F512GM48

      Sources: system_efr32fg23.c, startup_efr32fg23.c

      Configurable: true

      Configs: device.yaml

  - *Driver*
    - Button

      Simple Button

      Configurable: true

      Configs: sl_simple_button_btn0_config.h, sl_simple_button_btn1_config.h

    - LED

      Simple LED

      Configurable: true

      Configs: sl_simple_led_led0_config.h

  - *Peripheral*

    IADC

    Sources: em_iadc.c

    Configurable: false

  - *Radio*

    RAIL Utility, Initialization

    Configurable: true

    Configs: sl_rail_util_init_inst0_config.h

    RAIL Utility, Recommended

    Configurable: false

  - *Radio Configuration*

    Custom Radio Configuration for simple rail singlephy application

    Configurable: true

    Configs: radio_settings.radioconf

    Restrictions - Base Profile

    Configurable: true

    Configs: profile_base.restriction

    Restrictions - Connect Profile

    Configurable: true

    Configs: profile_connect.restriction

    Restrictions - Long Range

    Configurable: true

    Configs: profile_long_range.restriction

Restrictions - SUN Profile
Configurable: true
Configs: profile_sun.restriction

Restrictions - Sidewalk Profile
Configurable: true
Configs: profile_sidewalk.restriction

Restrictions - Wi-SUN FSK Profile
Configurable: true
Configs: profile_wisun_fan_1_0.restriction

Restrictions - Wi-SUN FSK Profile
Configurable: true
Configs: profile_wisun_fan_1_1.restriction

Restrictions - Wi-SUN FSK Profile
Configurable: true
Configs: profile_wisun_han.restriction

Restrictions - Wi-SUN OFDM Profile
Configurable: true
Configs: profile_wisun_ofdm.restriction

- *Security*
  • Memory Protection Unit
    Simple MPU
    Sources: sl_mpu.c
    Configurable: false

• Services

- *Device Initialization*
  Automatic Device Initialization
  Configurable: false

- *IO Stream*
  IO Stream: Recommended Stream
  Configurable: false

  IO Stream: Retarget STDIO
  Sources: sl_iostream_retarget_stdio.c
  Configurable: false

  IO Stream: USART Core
  Sources: sl_iostream_usart.c
  Configurable: false

• Driver

IO Stream: EUSART

Configurable: true

Configs: sl_iostream_eusart_inst_config.h

- Power Manager

Power Manager: Deepsleep

Configurable: false

- System Setup

System Setup

Configurable: false

- Timers

Sleep Timer

Sources: sl_sleeptimer_hal_sysrtc.c, sli_sleeptimer_hal.h, sl_sleeptimer_hal_timer.c, sl_sleeptimer_hal_rtcc.c, sl_sleeptimer_hal_rtc.c, sl_sleeptimer_hal_burtc.c, sl_sleeptimer.c, sl_sleeptimer_hal_prortc.c

Configurable: true

Configs: sl_sleeptimer_config.h

• Third Party

Tiny printf

Sources: iostream_printf.c, printf.c

Configurable: false

Pins:

Pin #	Pin Name	Function	Custom Pin Name	Software Component
25	PA00			
26	PA01			
27	PA02			
28	PA03			
29	PA04			
30	PA05	GPIO mode	EFR_PA5_BATT_MONITOR_ENA	
31	PA06	GPIO mode	EFR_PA6_EXTBATT_MONITOR_ENA	
32	PA07			
33	PA08			
34	PA09	EUSART1_TX		IO Stream: EUSART (inst)
35	PA10	EUSART1_RX		IO Stream: EUSART (inst)
24	PB00			
23	PB01			
22	PB02	GPIO mode		Simple LED (led0)
21	PB03			
1	PC00			

2	PC01			
3	PC02			
4	PC03			
5	PC04	GPIO mode	ON_OFF	Simple Button (btn0)
6	PC05	GPIO mode	BLE	Simple Button (btn1)
7	PC06			
8	PC07			
9	PC08			
10	PC09			
48	PD00			
47	PD01			
46	PD02			
45	PD03			
44	PD04			
43	PD05			

Peripherals:

Peripheral	Software Component	Custom Peripheral Name
ACMP0		
ACMP1		
CMU		
EUSART0	IO Stream: EUSART (inst)	
EUSART1	IO Stream: EUSART (inst)	
EUSART2	IO Stream: EUSART (inst)	
GPIO		
HFXO0		
I2C0		
I2C1		
IADC0		
KEYSCAN		
LCD		
LESENSE		
LETIMER0		
LFXO		
MODEM		
PCNT0		
PRS Channel ASYNCH0		
PRS Channel ASYNCH1		
PRS Channel ASYNCH10		
PRS Channel ASYNCH11		
PRS Channel ASYNCH2		
PRS Channel ASYNCH3		
PRS Channel ASYNCH4		
PRS Channel ASYNCH5		
PRS Channel ASYNCH6		
PRS Channel ASYNCH7		
PRS Channel ASYNCH8		
PRS Channel ASYNCH9		
PRS Channel SYNCH0		

PRS Channel SYNCH1		
PRS Channel SYNCH2		
PRS Channel SYNCH3		
PTI	RAIL Utility, PTI	
TIMER0		
TIMER1		
TIMER2		
TIMER3		
TIMER4		
USART0		
VDAC0		