Project Configuration Report IVP_LR_Connect

Target Device:

Target Part: FGM230SA27HGN

Boards:

- Wireless Pro Kit Mainboard (BRD4002A Rev A06)
- FGM230SA Radio Board (BRD4328B Rev A00)

Target SDK

Simplicity SDK Suite v2025.6.2: Bluetooth 10.1.1, Bluetooth Mesh 9.0.2, Connect 4.1.2, EmberZNet 8.2.2.0, Micrium OS Kernel 5.18.01, OpenThread 2.7.2.0 (GitHub-fb0446f53), Platform 5.2.2.0, RAIL 2.19.2, Silicon Labs Al/ML 2.1.2, Silicon Labs Matter 2.7.0-1.4, USB 1.5.1.0, Wi-Fi SDK 3.5.2, Wi-SUN 2.8.0, Z-Wave SDK 7.24.2.0

SDK Version: 2025.6.2

Extensions

- WiSeConnect 3 3.5.2
- Silicon Labs Matter 2.7.0
- Silicon Labs AI/ML 2.1.2

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

Connect

AES Security (Library)

Configurable: false

Application Framework Common

Sources: app_framework_stack_cb.c, app_framework_sleep.c, app_framework_common.c,

app_framework_common_cb.c

Configurable: false

Debug Print

Configurable: true

Configs: debug_print_config.h

Frequency Hopping

Configurable: true

Configs: frequency-hopping-config.h

MAC Queue

Configurable: true

Configs: mac-queue-config.h

Parent Support

Configurable: true

Configs: parent-support-config.h

Poll

Sources: poll.c Configurable: true Configs: poll-config.h

Stack Common

Sources: stack-stubs.c, sli-connect-random.c, sl-connect-rail-assert.c, stack-callback-stubs.c, sli-connect-token.c, sli-connect-api.c, sl-connect-power-manager.c, sl-connect-watchdog.c, ember-configuration.c, sl-connect-info.c

Configurable: true

Configs: stack-common-config.h

Stack Counters

Configurable: false

- Core

Sensor/Sink Core

Configurable: true

Configs: sl_sensor_sink_config.h

Platform

- Board

Board Control

Sources: sl_board_control_gpio.c, sl_board_control_stub.c, sl_board_init.c

Configurable: true

Configs: sl_board_control_config.h

- Board Drivers

Si70xx - Temperature/Humidity Sensor

Sources: sl_si70xx.c Configurable: false

- Board

Mainboard

BRD4002A

Configurable: false

Radio Board

BRD4328B

Configurable: false

- Device

• FGM23

FGM230SA27HGN

Sources: system_fgm23.c, startup_fgm23.c

Configurable: true Configs: device.yaml

- Driver

GPIOINT

Sources: gpiointerrupt.c Configurable: false

USTIMER

Sources: ustimer.c Configurable: true

Configs: ustimer_config.h

• Button

Simple Button

Configurable: true

Configs: sl_simple_button_btn0_config.h

• I2C

I2CSPM

Configurable: true

Configs: sl_i2cspm_sensor_config.h

• LED

Simple LED

Configurable: true

Configs: sl_simple_led_LED_AZUL_config.h,

sl_simple_led_LED_VERDE_config.h, sl_simple_led_LED_VERMELHO_config.h

- Peripheral

• EMLIB

IADC

Sources: em_iadc.c Configurable: false

- Radio

SL RAIL Utility, PTI

Configurable: false

- Radio Configuration

Custom Radio Configuration for simple connect singlephy application

Configurable: true

Configs: radio_settings.radioconf

Restrictions - Connect OFDM Profile

Configurable: true

Configs: profile_connect_ofdm.restriction

- Security

• Memory Protection Unit

Simple MPU

Sources: sl_mpu_s3.c, sl_mpu_s2.c

Configurable: false

PSA Crypto

PSA Persistent Storage Support (ITS)

Sources: sl_psa_its_nvm3.c

Configurable: false

Services

- Clock Manager

Clock Manager

Sources: sl_clock_manager_init.c

Configurable: true

Configs: sl_clock_manager_oscillator_config.h, sl_clock_manager_ext_flash_config.h,

sl_clock_manager_tree_config.h

- Command Line Interface

CLI Instance(s)

Configurable: true

Configs: sl_cli_config_example.h

- 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

- System Setup

System Setup (sl_main)

Configurable: true

Configs: sl_main_start_task_config.h

- Token Manager

Legacy Token Manager

Sources: sl_token_manufacturing_generic.c, sl_token_manufacturing.c, sl_token_def.c,

sl_token_manager.c Configurable: true

Configs: sl_custom_token_header.h, sl_token_manager_config.h,

sl_custom_manufacturing_token_header.h

• Third Party

Tiny printf

Sources: iostream_printf.c, printf.c

Configurable: false

Pins:

Peripherals:

| Peripheral | Software Component | Custom Peripheral Name |
|------------|--------------------------|------------------------|
| ACMP0 | | |
| ACMP1 | | |
| CMU | Clock Manager | |
| EUSART0 | IO Stream: EUSART (vcom) | |
| EUSART1 | IO Stream: EUSART (vcom) | |
| EUSART2 | IO Stream: EUSART (vcom) | |
| GPIO | SWO Debug | |
| HFXO0 | | |
| I2C0 | I2CSPM (sensor) | |
| I2C1 | I2CSPM (sensor) | |
| IADC0 | | |
| KEYSCAN | | |
| LCD | | |
| LESENSE | | |

| LETIMER0 | | |
|----------------------|--------------------|--|
| LFXO | | |
| MODEM | | |
| PCNT0 | | |
| PRS Channel ASYNCH0 | Radio Utility, FEM | |
| PRS Channel ASYNCH1 | Radio Utility, FEM | |
| PRS Channel ASYNCH10 | Radio Utility, FEM | |
| PRS Channel ASYNCH11 | Radio Utility, FEM | |
| PRS Channel ASYNCH2 | Radio Utility, FEM | |
| PRS Channel ASYNCH3 | Radio Utility, FEM | |
| PRS Channel ASYNCH4 | Radio Utility, FEM | |
| PRS Channel ASYNCH5 | Radio Utility, FEM | |
| PRS Channel ASYNCH6 | Radio Utility, FEM | |
| PRS Channel ASYNCH7 | Radio Utility, FEM | |
| PRS Channel ASYNCH8 | Radio Utility, FEM | |
| PRS Channel ASYNCH9 | Radio Utility, FEM | |
| PRS Channel SYNCH0 | Radio Utility, FEM | |
| PRS Channel SYNCH1 | Radio Utility, FEM | |
| PRS Channel SYNCH2 | Radio Utility, FEM | |
| PRS Channel SYNCH3 | Radio Utility, FEM | |
| PTI | RAIL Utility, PTI | |
| TIMER0 | USTIMER | |
| TIMER1 | USTIMER | |
| TIMER2 | USTIMER | |
| TIMER3 | USTIMER | |
| TIMER4 | USTIMER | |
| USART0 | | |
| VDAC0 | | |