

# Project Configuration Report

## MatterLightSwitch

### Target Device:

Target Part: EFR32MG24B220F1536IM48

Boards:

### 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, Sidewalk 2.6.0, Silicon Labs AI/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

### Project Generators

- VS Code (GCC)

### Installed Software Components:

- Clusters

- CHIP

- Basic Information Cluster**

- Sources: basic-information.cpp

- Configurable: false

- Diagnostic Logs Server Cluster**

- Sources: BDXDiagnosticLogsProvider.cpp, diagnostic-logs-server.cpp

- Configurable: false

- Network Commissioning Cluster**

- Sources: NetworkCommissioningCluster.cpp, ThreadScanResponse.cpp,

- WiFiScanResponse.cpp, NetworkCommissioningLogic.cpp, CodegenInstance.cpp

- Configurable: false

- OTA Software Update Requestor Cluster**

- Sources: ExtendedOTAResponseDriver.cpp, DefaultOTAResponseDriver.cpp,

- BDXDownloader.cpp, DefaultOTAResponseStorage.cpp,

- DefaultOTAResponseDriver.cpp, OTATestEventTriggerHandler.cpp,

- ota-requestor-server.cpp

- Configurable: false

- General

**Access Control Server Cluster**

Sources: access-control-server.cpp, ArLEncoder.cpp

Configurable: false

**Administrator Commissioning Server Cluster**

Sources: CodegenIntegration.cpp, AdministratorCommissioningLogic.cpp,

AdministratorCommissioningCluster.cpp

Configurable: false

**Binding Cluster**

Sources: PendingNotificationMap.cpp, BindingManager.cpp, bindings.cpp

Configurable: false

**Descriptor Cluster**

Sources: descriptor.cpp

Configurable: false

**Ethernet Network Diagnostics Server Cluster**

Sources: ethernet-network-diagnostics-server.cpp

Configurable: false

**Fixed Label Server Cluster**

Sources: fixed-label-server.cpp

Configurable: false

**General Commissioning Server Cluster**

Sources: general-commissioning-server.cpp

Configurable: false

**General Diagnostics Server Cluster**

Sources: general-diagnostics-server.cpp, GenericFaultTestEventTriggerHandler.cpp

Configurable: false

**Group Key Management Server Cluster**

Sources: group-key-mgmt-server.cpp

Configurable: false

**Groups Server Cluster**

Sources: groups-server.cpp

Configurable: false

**Identify Server Cluster**

Sources: identify-server.cpp

Configurable: false

**Level Control Cluster**

Sources: level-control.cpp

Configurable: false

**Localization Configuration Server Cluster**

Sources: localization-configuration-server.cpp

Configurable: false

**On/Off Server Cluster**

Sources: on-off-server.cpp

Configurable: false

**Operational Credentials Server Cluster**

Sources: operational-credentials-server.cpp

Configurable: false

**Scenes Management Server Cluster**

Sources: SceneHandlerImpl.cpp, SceneTableImpl.cpp, scenes-server.cpp,

ExtensionFieldSetsImpl.cpp

Configurable: false

**Software Diagnostics Server Cluster**

Sources: CodegenIntegration.cpp, software-diagnostics-logic.cpp,

software-fault-listener.cpp

Configurable: false

**Switch Server Cluster**

Sources: switch-server.cpp

Configurable: false

**Thread Network Diagnostics Server Cluster**

Sources: thread-network-diagnostics-server.cpp,

thread-network-diagnostics-provider.cpp

Configurable: false

**Time Format Localization Server Cluster**

Sources: time-format-localization-server.cpp

Configurable: false

**Time Synchronization Server Cluster**

Sources: TimeSyncDataProvider.cpp, DefaultTimeSyncDelegate.cpp,

time-synchronization-server.cpp

Configurable: false

**User Label Server Cluster**

Sources: user-label-server.cpp

Configurable: false

**Wi-Fi Network Diagnostics Server Cluster**

Sources: wifi-network-diagnostics-server.cpp

Configurable: false

- Matter-Thread

- Thread Network Layer**

- Configurable: false

- Matter

- Core

- app\_common**

- Sources: privilege-storage.cpp, util.cpp, DataModelHandler.cpp, binding-table.cpp, attribute-storage.cpp, attribute-table.cpp, generic-callback-stubs.cpp, reporting.cpp
  - Configurable: false

- check\_in\_message**

- Sources: CheckInCounter.cpp, CheckinMessage.cpp

- Configurable: false

- Examples

- matter\_light\_switch**

- Configurable: false

- OpenThread

- Stack (MTD)**

- Configurable: true

- Configs: sl\_openthread\_features\_mtd\_cert\_config.h, sl\_openthread\_reference\_device\_config.h, sl\_openthread\_features\_config.h, sl\_openthread\_features\_ncp\_config.h

- Platform

- Configuration Over SWO**

- Configurable: false

- Platform for xMGx series**

- Sources: SoftwareFaultReports.cpp, LEDWidget.cpp, MatterConfig.cpp, BaseApplication.cpp, silabs\_utils.cpp

- Configurable: false

- WSTK Button Support**

- Configurable: false

- matter LED Support**

- Configurable: false

## - Device

- EFR32MG24

### **EFR32MG24B220F1536IM48**

Sources: startup\_efr32mg24.c, system\_efr32mg24.c

Configurable: true

Configs: device.yaml

## - Display

### **Matter Default LCD/Display Configuration**

Configurable: false

## - Driver

- I2C

### **I2CSPM**

Configurable: true

Configs: sl\_i2cspm\_inst0\_config.h

- PWM

### **PWM**

Configurable: true

Configs: sl\_pwm\_init\_pwm\_config.h

## - Low-power

### **ICD Check In Protocol**

Sources: ICDCheckInSender.cpp

Configurable: false

### **ICD Server Configuration**

Configurable: true

Configs: sl\_matter\_icd\_config.h

## - Radio

### **RAIL Utility, PTI**

Sources: sl\_rail\_util\_pti.c

Configurable: true

Configs: sl\_rail\_util\_pti\_config.h

## - Security

### **Default Attestation Certificate provisioning configuration**

Sources: ProvisionStorageCustom.cpp, ProvisionStorageDefault.cpp

Configurable: true

Configs: sl\_matter\_provision\_config.h

### **Matter MbedTLS Crypto Integration**

Configurable: true

Configs: sli\_psa\_builtin\_config.h

- Utils

- Logging to UART**

- Configurable: false

- Matter Segger RTT**

- Sources: SEGGER\_RTT.c

- Configurable: true

- Configs: SEGGER\_RTT\_Conf.h

- 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

- Device Initialization

- Automatic Device Initialization**

- Configurable: false

- System Setup

- System Setup (sl\_main)**

- Configurable: true

- Configs: sl\_main\_start\_task\_config.h

- Stack

- Matter Core Components**

- Configurable: true

- Configs: sl\_matter\_config.h, ICDServerBuildConfig.h, build\_config.h

- Matter Test Event Trigger**

- Sources: SilabsTestEventTriggerDelegate.cpp

- Configurable: true

- Configs: sl\_matter\_test\_event\_trigger\_config.h

- OTA Requestor**

- Sources: OTAConfig.cpp, OTAIImageProcessorImpl.cpp

- Configurable: true

- Configs: sl\_matter\_ota\_config.h

- Bluetooth

- Bluetooth Network Layer**

- Configurable: false

- GATT Configuration with MATTERoBLE**

- Configurable: true

- Configs: gatt\_configuration.btconf

- Shell

**Matter Shell**

Sources: Help.cpp, Engine.cpp, cmd\_otcli.cpp, streamer\_silabs.cpp, Config.cpp, CommandSet.cpp, MatterShell.cpp, OnboardingCodes.cpp, WiFi.cpp, BLEShellCommands.cpp, streamer.cpp, globals.cpp, Meta.cpp, MainLoopSilabs.cpp, EventHandlerLibShell.cpp, Dns.cpp, ICDShellCommands.cpp, Stat.cpp, Ota.cpp, TracingShellCommands.cpp, cmd\_misc.cpp, Device.cpp, BLE.cpp, NFC.cpp  
Configurable: false

**Pins:**

Pin #	Pin Name	Function	Custom Pin Name	Software Component
26	PA00			
27	PA01			
28	PA02	EUSART0_CTS		UARTDRV EUSART (vcom)
29	PA03	EUSART0_RTS		UARTDRV EUSART (vcom)
30	PA04	GPIO mode		Simple LED (inst0)
31	PA05			
32	PA06			
33	PA07	TIMER0_CC0	pwm_led	PWM (pwm)
34	PA08	EUSART0_TX	TX->SAMD11	UARTDRV EUSART (vcom)
35	PA09	EUSART0_RX	RX-<SAMD11	UARTDRV EUSART (vcom)
23	PB00			
22	PB01			
21	PB02			
20	PB03			
19	PB04			
18	PB05			
1	PC00			
2	PC01			
3	PC02			
4	PC03			
5	PC04	I2C0_SDA		I2CSPM (inst0)
6	PC05	I2C0_SCL		I2CSPM (inst0)
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	Clock Manager	
EUSART0	UARTDRV EUSART (vcom)	
EUSART1	UARTDRV EUSART (vcom)	
GPIO		
HFXO0		
I2C0	I2CSPM (inst0)	
I2C1	I2CSPM (inst0)	
IADC0		
KEYSCAN		
LETIMER0		
LFXO		
MODEM		
PCNT0		
PRS Channel ASYNCH0		
PRS Channel ASYNCH1		
PRS Channel ASYNCH10		
PRS Channel ASYNCH11		
PRS Channel ASYNCH12		
PRS Channel ASYNCH13		
PRS Channel ASYNCH14		
PRS Channel ASYNCH15		
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	PWM (pwm)	led
TIMER1	PWM (pwm)	
TIMER2	PWM (pwm)	
TIMER3	PWM (pwm)	
TIMER4	PWM (pwm)	
USART0		
VDAC0		
VDAC1		