

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: ExtendedOTARequestorDriver.cpp, DefaultOTARequestor.cpp, BDXDownloader.cpp, DefaultOTARequestorStorage.cpp, DefaultOTARequestorDriver.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, OTAImageProcessorImpl.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		