

RT58x SDK Release Notes



Contents

RT.	58x SDK Release Notes	1
Coı	ntents	2
1	Revision History	3
2	RT58x_SDK_v1.9.3	9
3	RT58x_SDK_v1.9.2	10
4	RT58x_SDK_v1.9.1	11
5	RT58x_SDK_v1.9.0	12
6	RT58x_SDK_v1.8.0	13
7	RT58x_SDK_v1.8.0	14
8	RT58x_SDK_v1.7.0	15
9	RT58x_SDK_v1.6.0	16
10	RT58x_SDK_v1.5.0	17
11	RT58x_SDK_v1.4.0	18
12	RT58x_SDK_v1.3.0	19
13	RT58x_SDK_v1.2.3_BLE_Mesh	21
14	RT58x_SDK_v1.2.2_Zigbee	22
15	RT58x_SDK_v1.2.1	23
16	RT58x_SDK_v1.2.0	24
17	RT58x_SDK_v1.1.1	26
18	RT58x_SDK_v1.1.0	27
19	RT58x_SDK_v1.0.1	29
20	RT58x_SDK_v1.0.0_Mesh	30
21	RT58x_SDK_v1.0.0	31
22	RT58x_SDK_v0.3.1	34
23	RT58x_SDK_v0.2.0	36
24	RT58x SDK v0.1.0	37



Revision History

Date	Version	Description
2021/11/05	0.1.0 (alpha)	- Initial version
2022/01/11	0.2.0 (alpha)	- For SubG only
2022/02/16	0.3.1 (alpha)	- Added GCC project for all examples
		- Added Zigbee/BLE multi-protocol demo
		- Added more Zigbee examples
		- Added more tools and related documents
		- Unified application architecture of different protocols
		- Modified power saving example
2022/03/31	1.0.0	- Added more peripheral drivers and examples
		- Added BLE demos with low power mode mechanism
		- Added more tools and related documents
		- Integrated DTM function
		- Fixed bug in BLE multi-link demo
2022/04/08	1.0.0 (Mesh)	- Added BLE Mesh demo example
		- Added BLE Mesh App
		- Added BLE Mesh documents
2022/05/18	1.0.1	- Added software PMU calibration
		- Extend Zigbee maximum network nodes
		- Fixed low speed timer reload issue
2022/06/10	1.1.0	-Added examples: I2S digital microphone
		-Added Address protect in flash driver.
		-Modify PWM example
		-Added BLE UART_cmd demo
		-Added BLE Beacon demo
		-Added Zigbee Gateway command example
		-Added Zigbee User_specific cluster
		-Added Thermostat cluster
		-Fixed Zigbee two end-point bug
		-Fixed Zigbee OTA buffer issue
2022/07/09	1 1 1	-RF_Lab_Test_Tool support SubG RF test
2022/07/08	1.1.1	- Modify PMU DCDC initial setting to enhance the
2022/07/10	120	stability under stress environment
2022/07/19	1.2.0	-BLE: add Privacy and connect CTE API
		-Zigbee: now can pre-configure network parameter.



2022/00/05	1.2.1	-Zigbee: add OTA function in new gateway demo -Zigbee: AES by HW acceleratorAdd multi-protocol demo: Zigbee Easy Gateway -Add multi-protocol demo: utilize BLE to reset Zigbee device -Add Android app for multi-protocol demos.
2022/09/05	1.2.1	-Tools: MP_Tool add Tx power 0/4 dBm target -Zigbee: optimize RX current consumption -Zigbee: device send leave command to gateway after factory reset
2022/09/30	1.2.2	Zigbee Gateway module: - Revise binding command - Add read attribute, write attribute, configure report command Zigbee Light: - Add OTA client cluster - Add finding & binding process Zigbee Switch: - Remove endpoint 1&3 - Add OTA client cluster - Add finding & binding process Zigbee OTA Server: - Removed (gateway module replace) Zigbee OTA Client: - Removed (light/switch replace)
2022/10/13	1.2.3	BLE Mesh: -Implement Model and Lighting DemoBLE Mesh Performance Tuning -BLE Mesh Document
2023/01/17	1.3.0	Platform & Peripheral: - Update ADC setting to improve accuracy of chip variation - Bootloader support FOTA image decompression. Zigbee: - Power on/off 5 times to reset light device - Add sensor related clusters - New flash update algorithm - Add library version



		Modify private aluster ID
		- Modify private cluster ID
		- Improve interoperability with other Zigbee device
		- Fix under multi-PAN environment, device may accept
		packet from different PAN_ID.
		BLE:
		- Use 2 bytes to indicate LL TX data sequence
		- FOTA flow update. Support image compression
		BLE Mesh:
		- Fixed transparent transmission bug: now different packet
		size are all right
		Sub-G:
		- Add OQPSK 6.25k data rate
		- Add field test demo code
		Tool:
		- Android app: support BLE Mesh demo
		- Android app: support Zigbee smart home
		- MP_tool: separate BLE/Zigbee Tx power target
		- FOTA tool: support OTA image compression
		- RF_lab_test_tool: modify SubG test option
	4.4.0	D1 . C
2023/03/07	1.4.0	Platform:
2023/03/07	1.4.0	Platform: - Add 2MB Flash FLM
2023/03/07	1.4.0	
2023/03/07	1.4.0	- Add 2MB Flash FLM
2023/03/07	1.4.0	- Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity
2023/03/07	1.4.0	- Add 2MB Flash FLM- Update flash driving setting to improve RX sensitivity- Fix Deep Sleep issue
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool:
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW.
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol:
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other:
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW:
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW: - Fixed getting wrong RSSI value when TX power is very
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW: - Fixed getting wrong RSSI value when TX power is very low on Sub-G
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW: - Fixed getting wrong RSSI value when TX power is very low on Sub-G - Enable MAC features for multi-protocol
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW: - Fixed getting wrong RSSI value when TX power is very low on Sub-G - Enable MAC features for multi-protocol - Support up to 32 sets of source match address
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW: - Fixed getting wrong RSSI value when TX power is very low on Sub-G - Enable MAC features for multi-protocol - Support up to 32 sets of source match address - Security key setup failed when BLE is enabled on
2023/03/07	1.4.0	 - Add 2MB Flash FLM - Update flash driving setting to improve RX sensitivity - Fix Deep Sleep issue - Turn off LDO Enable when not loading 80251 FW. Tool: - MP_tool support 2MB flash Multi-Protocol: - Modify Zigbee/BLE application document Other: - 2MB flash OTA add secure upgrade FW: - Fixed getting wrong RSSI value when TX power is very low on Sub-G - Enable MAC features for multi-protocol - Support up to 32 sets of source match address



2023/06/29	1.5.0	[Platform]: - Modify VS Code and SDK Getting Start document Add SDK Quick Start document [Tool]: - MP Tool v1.4.0 support Sub-G power trim, matter production with certificates, and 1 to 16 parallel test - BLE Mesh Android app support Scenes, Rafael TRSP Server, and Rafael TRSP Client modes [BLE Mesh]: - Add gateway project and document - Restructure the file and folder for client model - Fixed provisioning fail issue
2023/08/23	1.6.0	[Platform]: - Add SRAM power enable at initial function Modify WDT setting to let WDT can reset all blocks - Modify WDT example - Fix Bootloader OTA decoder error at some image length [SubG]: - Support 433MHz [BLE]: - Add Privacy for Direct ADV, Scan [BLE Mesh]: - Gateway support BLE Transparent Transmission [Tool]: - MP Tool apply RF Trim calibration value - RF Lab Test Tool add SubG Tx power selection for band0 915Mhz to band2 433Mhz.
2024/01/08	1.7.0	[BLE]: - Add privacy demo example - Support LE Secure Connection [BLE Mesh]: - Server library support BLE TRSP service [Thread]: - Add Thread example and document [Zigbee]: - Modify gateway command document [Tool]:



		- Mobile App add LE commission for SubG device to join SubG network
2024/03/21	1.8.0	[Platform]: - Add examples projects: Flash_RW, GPIO_Interrupt, Gpio_Input, GPIO_Output, SADC_Polling, Timer_Periodic, Timer_Freerun, WDT_Interrupt [SubG]: - Support 470~510MHz - Keep Tx constant power (15dBm) regardless Vbat voltage [Thread]: - Add SubG frequency band setting (915M, 868M, 433M) [Tool]: - RF lab test tool: add SubG 470~510MHz
2024/05/06	1.9.0	[Platform]: - Update flash DS (Data Set) examples - Fix flash DS API read fail issue. [Thread]: -Add 2.4G MTD Project -Fix MTD task idle can't enter sleep issue. [SubG]: -Add support tx_continuous_wave_set API. [Tool]: -ISP tool: Auto reset and write/clear signature public key -FOTA tool: Output signature bin option for ISP tool.
2024/06/21	1.9.1	[Zigbee]: - Add DoorLock examples - Update Lighting and Move commands with OptionMask, OptionOverride byte [Thread]: - Add configuration to set selection of eid64(mac) address Fixed OTA bitmap memory-free issue. [SubG]: - Update RFB tx_continuous_wave_set API - Update demo project to support TX power function [Tool]: - Upgrade VS2012 to VS2022 version. Include ISP tool/ RF lab test tool/ FOTA tool/ MP tool



2024/08/02	1.9.2	[Platform]:
2021/00/02	1.5.2	- Update PMU default setting
		[Zigbee]:
		- Update gateway command document.
		- Fixed orphaning rejoin.
		- Fixed gateway extended address response error.
		[SubG]:
		- Enable whitening as default.
	100	- RFB Add Rx reserve command & API
2024/10/20	1.9.3	[Platform]:
		-Fix SADC Polling examples
		[Thread]:
		- Add MAC direct transfer function
		[Zigbee]:
		- Add gateway commands
		- Install code setup command
		- Manufacture cluster command
		- Add timer cluster on gateway module
		- Add command to send permit join request packet
		- Update document and SDK
		[Tool]:
		- Update Zigbee PC tool and user guide
		- Update ISP tool and user guide



New Features

-NONE

• Feature Changes

- -Thread
 - ➤ Add MAC direct transfer function

-Zigbee

- ➤ Add gateway commands
 - Install code setup command
 - Manufacture cluster command
 - Add timer cluster on gateway module
 - Add command to send permit join request packet
- ➤ Update document and SDK

-Tool

- > Update Zigbee PC tool and user guide
- ➤ Update ISP tool and user guide

- -Platform
 - ➤ Fix SADC polling example



New Features

-NONE

• Feature Changes

- -Platform
 - > Update PMU default setting
- -SubG
 - > Enable whitening as default.
 - > RFB Add Rx reserve command & API
- -Zigbee
 - > Update gateway command document.

- -Zigbee
 - > Fixed orphaning rejoin
 - > Fixed gateway extended address response error



New Features

- -Thread
 - Add configuration to set selection of eid64(mac) address.
- -Zigbee
 - ➤ Add DoorLock example.

Feature Changes

- -Tool (Upgrade VS2012 to VS2022 version)
 - > ISP tool, RF lab test tool, FOTA tool, MP tool.
- -SubG
 - ➤ Update RFB tx continuous wave set API.
 - > Update demo project to support Tx power function.

-Zigbee

➤ Update Lighting and Move commands with OptionMask, OptionOverride byte.

- -Thread
 - Fixed OTA bitmap memory-free issues.
- -SubG
 - > Fixed tx_power_set API band definition.



New Features

- -Thread
 - ➤ Add 2.4G MTD Project
- SubG
 - ➤ Add support tx_continuous_wave_set API.

• Feature Changes

- -Platform
 - ➤ Update flash DS (Data Set) examples
- -Tool
 - ➤ ISP tool: Auto reset and write/clear signature public key
 - > FOTA tool: Output signature bin option for ISP tool.

- Thread
 - > Fix MTD task idle can't enter sleep issue.
- Platform
 - Fix flash DS API read fail issue.



New Features

- -Platform
 - ➤ Add examples project:
 Flash_RW/GPIO_Interrupt/GPIO_Input/GPIO_Output
 SADC_Polling/Timer_Periodic/Timer_Freerun/WDT_Interrupt
- -SubG
 - > Add 470~510MHz band
 - ➤ Keep Tx constant power (15dBm) regardless Vbat voltage (Frequency: 433~510MHz)
- -Thread
 - ➤ Add SubG frequency band setting (915M, 868M, 433M)

• Feature Changes

- -Tool
 - > RF lab test tool: add SubG 470~510MHz

Bug Fixes



New Features

- -Platform
 - ➤ Add examples project:
 Flash_RW/GPIO_Interrupt/GPIO_Input/GPIO_Output
 SADC_Polling/Timer_Periodic/Timer_Freerun/WDT_Interrupt
- -SubG
 - > Add 470~510MHz band
 - ➤ Keep Tx constant power (15dBm) regardless Vbat voltage (Frequency: 433~510MHz)
- -Thread
 - ➤ Add SubG frequency band setting (915M, 868M, 433M)

• Feature Changes

- -Tool
 - > RF lab test tool: add SubG 470~510MHz

Bug Fixes



New Features

- -BLE
 - ➤ Add privacy demo example
 - > Support LE secure connection
- -BLE Mesh
 - ➤ Server library support BLE TRSP service
- -Thread
 - ➤ Add Thread example and document

• Feature Changes

- -Zigbee
 - ➤ Modify gateway command document
- -Tool
 - ➤ Mobile App add BLE commission for Sub_G device to join Sub_G network

Bug Fixes



New Features

- -SubG
 - ➤ Support 433MHz
- -BLE
 - > Add Privacy for Direct ADV, Scan
- -BLE Mesh
 - ➤ Gateway supports BLE Transparent Transmission

Feature Changes

- -Platform
 - > SRAM power enable at the start of system initial function. To avoid operation abnormal after wakeup from Deep Sleep
- -Tool
 - ➤ ISP tool add SubG Tx power selection band0 [915Mhz] and band2 [433Mhz].
 - ➤ RF Lab Test Tool add SubG Tx power selection band0[915Mhz] to band2 [433Mhz].

- -Tool
 - > MP Tool apply RF Trim calibration value to solve random RX fail issue
- Platform
 - ➤ Modify WDT setting to let WDT can reset all blocks
 - > Fix Bootloader OTA decoder error at some image length



New Features

• Feature Changes

- -Platform
 - ➤ Modify VS Code and SDK Getting Start document.
 - > Add SDK Quick Start document

-Tool

- ➤ BLE Mesh app: Android app support Scenes, Rafael TRSP Server, and Rafael TRSP Client modes
- ➤ MP Tool v1.4.0: support Sub-G power trim, matter production with certificates, and 1 to 16 parallel test

-BLE Mesh

- > Implement gateway project and document
- Restructure the file and folder for client model

Bug Fixes

- -BLE Mesh
 - > Fixed provisioning fail issue

Known Issues

-None



New Features

- -Platform
 - ➤ Add 2MB Flash FLM
 - > Update flash driving setting to improve RX sensitivity

Feature Changes

- -Tool
 - ➤ MP tool support 2MB flash
- -Multi Protocol
 - ➤ Modify Zigbee/BLE application document for first time join Zigbee network
- -Other
 - ➤ 2MB flash OTA support secure upgrade
- -FW
 - ➤ Enable MAC features for multi-mode
 - ➤ Support Up to 32 Sets of Source Match Address
 - > Security key setup failed when BLE is enabled on multi-mode FW

Bug Fixes

- -Platform
 - Fix Deep Sleep issue
 - > Turn off LDO Enable when not loading 80251 FW.

Known Issues

-None



New Features

-Zigbee:

- ➤ New flash update algorithm
- > Add library version

-Tool:

➤ Android app: add Zigbee smart home

Feature Changes

-Zigbee:

- ➤ Power on/off 5 times to reset light device
- ➤ Gateway for Home Automation
 - Add sensor related clusters
- ➤ Modify private cluster ID

-BLE:

- ➤ Use 2 bytes to indicate LL TX data sequence
- > FOTA flow update to support image compression

-BLE Mesh:

➤ Change ADV_enable complete event response timing from "TX complete" to "constant delay"

-SubG:

➤ Add SubG_Field_Test demo



-Platform:

- ➤ Bootloader Support LZMA decompression for FOTA
- ➤ Add "volatile" to avoid optimization in Sleep mode

-Tool:

- Android app: modify BLE Mesh demo
- ➤ MP tool
 - Separate BLE/Zigbee Tx power target
 - Manual set X'tal cap
- ➤ ISP tool
 - Support SubG
 - FOTA with image compression

Bug Fixes

-Peripheral:

➤ Update ADC setting to overcome chip variation issue.

-Zigbee:

- ➤ Solve one interoperability issue with Legacy Zigbee gateway
- Fix under multi-PAN environment, device may accept packet from different PAN_ID.

-BLE Mesh:

- ➤ Fixed bug: in transparent transmission, different packet size stress test assert
- Fixed bug: sometimes Provision fail

-Sub G:

- ➤ Fixed GCC project
- > Fixed received data sequence in SubG TRX demo example

Known Issues

-Platform:

➤ Cortex M3 can't enter deep sleep mode if communication subsystem still working. Will fix it in SDK v1.3.1



12 RT58x_SDK_v1.2.3_BLE_Mesh

- New Features
- None.

• Feature Changes

- -BLE Mesh:
 - ➤ Implement Model and Lighting Demo.
 - > BLE Mesh Performance Tuning.
 - > BLE Mesh Document.
- Bug Fixes
- None.
- Known Issues
- None.



13 RT58x_SDK_v1.2.2_Zigbee

New Features

- None.

• Feature Changes

-Zigbee:

- > Gateway module:
- Revise binding command
- Add read attribute, write attribute, configure report command
- Light:
- Add OTA client cluster
- Add finding & binding process
- > Switch:
- Remove endpoint 1&3
- Add OTA client cluster
- Add finding & binding process
- > OTA Server:
- Removed (gateway module replace)
- > OTA Client:
- Removed (light/switch replace)

Bug Fixes

- None.

Known Issues



New Features

- Tools:
 - ➤ MP_Tool add Tx power 0/4 dBm target

• Feature Changes

- -Zigbee:
 - ➤ Optimize RX current consumption
 - > Device send leave command to gateway after factory reset
- Bug Fixes
- None.
- Known Issues
- None.



New Features

-BLE:

➤ Add Privacy and connect CTE API.

-Zigbee:

- ➤ Now can pre-configure the network parameters.
- ➤ Add OTA function in new gateway demo.

-Multi-protocol:

- ➤ Zigbee Easy Gateway: implement Zigbee gateway by one RT582 chip. Running BLE/Zigbee multi-protocol on RT582 to replace traditional Zigbee gateway.
- ➤ Utilize BLE to reset Zigbee Device when Gateway is broken or offline.

-Tools:

- ➤ Android app: Easy Gateway app
- > Android app: utilize BLE to reset Zigbee Device

Feature Changes

- Zigbee AES by HW accelerator.



Bug Fixes

- Zigbee address generation form MAC address in flash OTP

Known Issues



New Features

- None.

Feature Changes

- Modify PMU DCDC initial setting to enhance the stability under stress environment.

Bug Fixes

- None.

Known Issues



New Features

- -Added examples: I2S digital microphone
- -Modify PWM example
- -BLE:
 - ➤ Added UART cmd demo
 - ➤ Added Beacon demo

-Zigbee:

- ➤ Gateway example support more commands
- ➤ Added User_specific_cluster
- ➤ Added Scene in light demo
- ➤ Added Thermostat cluster

-Multi-protocol:

➤ Added Zigbee ZED with BLE OTA demo

-Tools:

- ➤ RF_Lab_Test_Tool: supports SubG RF test. On the GUI, remove WiSun mode and change to SubG mode
- ➤ ISP_Tool: (1) remove MP_sector Download and Erase button



- (2) Judge If IC had been MP_calibrated or not? If not, UI show warning message.
- Android App: add BLE Mesh On/Off demo

Feature Changes

- Projects include TX_power compensation. Default is disable

Bug Fixes

- Fixed Zigbee two end-point bug.
- Fixed Zigbee OTA buffer issue.

Known Issues



New Features

- Added software PMU calibration.

Feature Changes

- Extend Zigbee maximum network nodes to 200.

Bug Fixes

- Fixed low speed timer reload abnormal issue under low temperature.

Known Issues



19 RT58x_SDK_v1.0.0_Mesh

New Features

- Added BLE Mesh demo example.
 - > \Project\Application\BLE Mesh\GenericOnOff\.
- Added BLE Mesh App.
 - ➤ \Tools\Android App\.
- Added BLE Mesh documents.
 - ➤ \Tools\Android App\User guide\

Android APP BLE Mesh user guide V1.2.pdf.

- ➤ \Docs\RT58x_BLE_Mesh_User_Guide_V1.0.pdf.
- ➤ \Docs\RT58x_SDK_for_BLE_Mesh_Demo_Guide_V1.0.pdf.

Feature Changes

- None.

Bug Fixes

- None.

Known Issues



New Features

- Added peripheral drivers and examples for I2S, Timer, Watchdog, and SADC.
- Added BLE demo example with low power mode mechanism.
- Added BLE UART_TRSP demo with low power mode mechanism and wakeup by URAT break in "Rafael UART Break tool".
- Added more tools.
 - ➤ Upgraded xcode from v5.5 to v5.6 in iOS App.
 - ➤ Added Zigbee/BLE multi-standard demo in iOS App.
 - ➤ Added UART_Break_Tool to send break signal to wakeup BLE before sending characters for BLE UART TRSP demo.
 - ➤ Added Tx Power trim, ADC trim, and Comparator trim to MP Tool.
- Added related documents.
 - ➤ [SW_15]RT58x_Zigbee_Gateway_Light_Switch_Operation_Guide_V1.0.
 - > RT58x SDK Reference Guide in Doxygen format.



Feature Changes

- Removed Direct_Test_Mode demo and integrated DTM function into "RF Lab Test Tool FW".

Bug Fixes

- Fixed bug in BLE multi-link demo.

Known Issues

- None.

Notes

- SDK includes MCU peripheral examples, BLE examples, and Zigbee examples. All examples support Keil and GCC projects.
 - ➤ Peripheral: \Project\Examples\.
 - ➤ BLE: \Project\Application\BLE_Demo\.
 - ➤ Zigbee: \Project\Application\Zigbee Demo\.
 - ➤ Zigbee & BLE: \Project\Application\Multi_Protocol_Demo\.
- For all examples to work properly, the bootloader needs to be downloaded first. Please refer to the documentation for details.
 - ➤ \Docs\[SW_02]RT58x_SDK_IOT_Application_Overview_V1
 .0.
- Measure sleep power consumption project.



- ➤ \Project\Examples\Sleep.
- Tool and test image to measure RF performance.
 - ➤ \Tools\IOT_Evaluation_Tool.
 - ➤ \Tools\IOT_Evaluation_Tool\RF_Lab_Test_Tool_FW.



21 RT58x_SDK_v0.3.1

New Features

- Added GCC project for all examples.
- Added Zigbee/BLE multi-protocol demo.
- Added more Zigbee examples, eg: Gateway, OTA, etc.
- Added more tools.
 - ➤ ISP Tool
 - > RF Lab Test Tool
 - Security_Boot_Tool
 - ➤ Mass_Production_Tool
 - Android_App
 - ➤ iOS_App
- Added related documents.
 - ➤ [SW_01]RT58x_SOC_Platform_Getting_Started_V1.1
 - ➤ [SW_02]RT58x_SDK_IOT_Application_Overview_V1.0
 - > [SW 03]RT58x Zigbee SDK User Guide V1.0
 - ➤ [SW_04]RT58x_Zigbee_Application_Guide_V1.0
 - > [SW 06]RT58x BLE SDK User Guide V1.0
 - ➤ [SW 07]RT58x BLE SDK Application Guide v1.0



- > [SW_08]RT58x_BLE_SDK_OTA_Guide_V1.0
- > [SW_09]RT58x_BLE_SDK_Service_Profile_Guide_V1.0
- > [SW_13]RT58x_Multi_Protocol_Application_Guide_V1.0

Feature Changes

- Unified application architecture of different protocols.
- Modified power saving example.

Bug Fixes

- None.

Known Issues



22 RT58x_SDK_v0.2.0

New Features

- For SubG only.

Feature Changes

- None.

Bug Fixes

- None.

Known Issues



23 RT58x_SDK_v0.1.0

New Features

- Initial version.
- Added peripheral drivers and examples.
- Added BLE stack and BLE applications.

Feature Changes

- None.

Bug Fixes

- None.

Known Issues