

# Release Notes

## DA16200 FreeRTOS SDK

### Abstract

*This document contains the release notes for Dialog Semiconductor's DA16200 FreeRTOS Software Development Kit, version 3.1.1.0*

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## DA16200 FreeRTOS SDK

### 1 Terms and Definitions

API	Application Programming Interface
OTA	Over The Air Upgrade
RTOS	Real Time Operating System
SDK	Software Development Kit
QFN	Quad Flat No-lead Package

### 2 Release Data

**Table 1: Information Table**

<b>Software</b>	SDK 3.1.1.0 ( DA16200 FreeRTOS SDK )
<b>Device Number</b>	DA16200
<b>Software Release Date</b>	11 May 2021
<b>Software Version Number</b>	3.1.1.0
<b>Software Release Type (Note 1)</b>	FULL (GA)

**Note 1** Releases can be of the following types : FULL (GA), FULL (LA), ENGINEERING, PATCH or BINARY

### 3 License

Licenses covering this SDK release are listed in the license.txt file in SDK docs folder.

### 4 Related Documentation and References

- [1] UM-WI-049, DA16200, FreeRTOS, SDK Startup Guide for Linux, Rev 1.0, User Manual, Dialog Semiconductor.
- [2] UM-WI-050, DA16200, FreeRTOS, SDK Startup Guide for Window, Rev 1.0, User Manual, Dialog Semiconductor.
- [3] UM-WI-046, DA16200, FreeRTOS, Programmer Guide, Rev 1.0, User Manual, Dialog Semiconductor
- [4] UM-WI-047, DA16200, FreeRTOS, EVK User Guide, Rev 1.0, User Manual, Dialog Semiconductor
- [5] UM-WI-048, DA16200, FreeRTOS, OTA User Guide, Rev 1.0, User Manual, Dialog Semiconductor
- [6] UM-WI-003, DA16200, AT-CMD User Guide, Rev 2.3, User Manual, Dialog Semiconductor
- [7] UM-WI-010, DA16200, MQTT Programmer Guide, Rev 1.6, User Manual, Dialog Semiconductor
- [8] DA16200, Datasheet, Rev 3.2, Datasheet, Dialog Semiconductor.

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## DA16200 FreeRTOS SDK

### 5 Release Description

#### 5.1 Version 3.1.1.0

##### 5.1.1 Overview

This is a full release of SDK V3.1.1.0 which supports the DA16200 device. It adds DPM daemon and related functions support for the DA16200. Also, adds several improvements and fixes as listed in the following tables.

##### 5.1.2 New and Updated Features of 3.1.1.0

**Table 2: 3.1.1.0 New Features**

Feature Number	Description
3.1.0.0 - 01	None

##### 5.1.3 Fixes and Improvements since 3.1.1.0

**Table 3: 3.1.1.0 Fixes and Improvements**

Fix Number	Description
3.1.1.0 / 01	Fix first "ping domain_url" operation error after POR booting.
3.1.1.0 / 02	Fix Http Client Sample build error.

## DA16200 FreeRTOS SDK

### 6 Release History

#### 6.1 Version 3.1.0.0

##### 6.1.1 Overview

This is a full release of SDK V3.1.0.0 which supports the DA16200 device. It adds DPM daemon and related functions support for the DA16200. Also, adds several improvements and fixes as listed in the following tables.

##### 6.1.2 New and Updated Features of 3.1.0.0

**Table 4: 3.1.0.0 New Features**

Feature Number	Description
3.1.0.0 - 01	Support for DPM operation to FreeRTOS SDK package.
3.1.0.0 - 02	Merge pTIM and RamLib binary into RTOS binary FW image.
3.1.0.0 - 03	Add the function to break for endless loop reboot when exception event occurs. - To break boot sequence when power-on-reboot, press <ESC> key on Console terminal utility. - Auto break when 5 times of exception events occur on the same PC (Program count).
3.1.0.0 - 04	Support for Adesto SFLASH device AT25SL321 and GigaDevice GD25LQ16C SFLASH device.

##### 6.1.3 Fixes and Improvements since 3.1.0.0

**Table 5: 3.1.0.0 Fixes and Improvements**

Fix Number	Description
3.1.0.0 / 01	Initial official SDK version. No fix and improvement information.

##### 6.1.4 Known Issue of 3.1.0.0

**Table 6: 3.1.0.0 Known Issues**

Issue Number	Description
3.1.0.0 : 01	When connecting the legacy-AP (AX1500) set to "Hidden SSID" mode, a beacon-change event occurs and it is the reason of "Network Interface(wlan0) : DOWN" error.
3.1.0.0 : 02	In AT-CMD, when "AT+WFAPCH" command run, it does not change to new channel value but it looks like it has changed as new channel value.
3.1.0.0 : 03	Some AT-CMDs, it is needed to add validity check function about parameters.
3.1.0.0 : 04	Some compiled warning messages remain in the Eclipse IDE.

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**DA16200 FreeRTOS SDK****6.1.5 Known Limitations of 3.1.0.0****Table 7: 3.1.0.0 Known Limitations**

Issue Number	Description
3.1.0.0 :: 01	Not support AT-CMD feature on 2MB SFLASH type.
3.1.0.0 :: 02	Not support secure mode / RMA mode booting.
3.1.0.0 :: 03	Performance test : Recommended iPerf tool version 2.0.5.
3.1.0.0 :: 04	Not support multi-session connection on TCP/UDP server
3.1.0.0 :: 05	Not support WPA3 functions in V 3.1.0.0 SDK.

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## DA16200 FreeRTOS SDK

### 6.2 Version 3.0.0.0

#### 6.2.1 Overview

This is a full release of SDK 3.0.0.0 which supports the DA16200 device. This version is initial version to support FreeRTOS™, lwIP network stack and Eclipse IDE w/ GCC compiler.

#### 6.2.2 New and Updated Features of 3.0.0.0

**Table 8: 3.1.0.0 New Features**

Featrure Number	Description
3.0.0.0 - 01	Initial version for FreeRTOS kernel with lwIP network stack.

## Appendix A Software Versioning Rules

This describes the software version numbers and does not apply to documentation version numbers (as found in the footer of this document).

Each software version number string consists of four numbers: MAJOR. MINOR. REVISION. and ENGINEERING\_REV.

**#MAJOR:** It is increased (by one only) if the project undergoes a major modification, for example OS changes. It usually changes only when the project sources undergo major restructuring affecting most of the repository. It is initialized at 1.

**#MINOR:** Used in the case of concurrent projects that for special reasons need to be spun off the major repository. It corresponds to different versions of the repository code that have to be supported concurrently. In this case each branch number corresponds to a different GIT branch. The basic project has BRANCH id 0.

**#REVISION:** Full release versions. Each Full release increases this number by one. After the Full release, the number is increased by one again. Therefore, Project releases correspond to release numbers like X.Y.0.0, X.Y.1.0. etc. The #REVISION number is initialized at 0.

**#ENGINEERING\_REV:** The # ENGINEERING\_REV number increases by one at engineering update and thus indicates the total number of release since release the official SDK package. The ENGINEERING\_VERSION number is initialized at 0.

## DA16200 FreeRTOS SDK

### Document Revision History

This section summarizes the changes made to this document and not to the Software that this document describes.

Revision	Date	Description
3	11-May-2021	Full Release 3.1.1.0
<b>Change details:</b> - Bug fixes first "ping domain_url" operation after POR booting.		
2	14-APR-2021	Full Release 3.1.0.0
<b>Change details:</b> - Add new features for DPM operation - Bug fixes and internal improvements		
1	18-Dec-2020	Initial version. Official release for FreeRTOS SDK 3.0.0.0  Documents - DA16200_FreeRTOS_SDK_Start_Guide_for_Linux_Rev_1v0.pdf - DA16200_FreeRTOS_SDK_Start_Guide_for_Windows_Rev_1v0.pdf - DA16200_FreeRTOS_EVK_User_manual_Rev_1v0.pdf - DA16200_FreeRTOS_SDK_Programmer_User_manual_Rev_1v0.pdf - DA16200_FreeRTOS_AT-Command_User_Manual_Rev_1v0.pdf - DA16200_FreeRTOS_Example_Application_Manual_Rev_1v0.pdf - DA16200_FreeRTOS_MQTT_User_Manual_1v0.pdf - DA16200_FreeRTOS_OTA_update_User_Manual_1v0



## DA16200 FreeRTOS SDK

### Status Definitions

Status	Definition
DRAFT	The content of this document is under review and subject to formal approval, which may result in modifications or additions.
APPROVED or unmarked	The content of this document has been approved for publication.

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