

# DA14585 Voice RCU Software Release Notes for version 6.140.2

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## 1.0 Introduction

### 1.1 Scope

This document describes the release of the DA14585 Voice RCU reference design software from Dialog Semiconductor.

### 1.2 Terms and abbreviations

BLE Bluetooth Low Energy

SDK Software Development Kit

RCU Remote Control Unit

### 1.3 Release Data

PROJECT	DA14585 Voice RCU
RELEASE DATE	10 July 2017
VERSION NR.	6.140.2 (based on SDK version 6.0.4)
RELEASE TYPE <sup>1</sup>	FULL (GA)
RELEASE MASTER	Christos Meletis

### 1.4 License

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

### 1.5 History

VERSION	RELEASE MASTER	DATE
6.140.2	Christos Meletis	10 July 2017

<sup>1</sup> Releases can be of the following types: FULL (GA), FULL (LA), RELEASE CANDIDATE, ENGINEERING, PATCH or BINARY

## 2.0 Release Description

### 2.1 Major Changes

#	DESCRIPTION		
<b>OVERVIEW</b>			
<p>This is the first FULL (GA) release of the software of the DA14585 based Voice RCU reference design. The most important features of this initial version are listed below:</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>User Interface</b></p> <ul style="list-style-type: none"> <li>• 4x3 matrix keyboard</li> <li>• Trackpad</li> <li>• LED indicators</li> <li>• Magnetic buzzer indicator</li> </ul> <p><b>Sensors</b></p> <ul style="list-style-type: none"> <li>• Accelerometer/Gyro (BMI160)</li> <li>• PDM microphone</li> </ul> <p><b>Actuator</b></p> <ul style="list-style-type: none"> <li>• IR LED</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Audio capabilities</b></p> <ul style="list-style-type: none"> <li>• PDM microphone input</li> <li>• 16-bit, 8 or 16 kHz sampling</li> <li>• IMA ADPCM encoder</li> <li>• Adaptive audio rate</li> </ul> <p><b>BLE Services</b></p> <ul style="list-style-type: none"> <li>• Battery service</li> <li>• Device information service</li> <li>• HOGP</li> <li>• SUOTA service (Dialog proprietary)</li> <li>• Dialog Audio service (Dialog proprietary)</li> </ul> </td> </tr> </table>		<p><b>User Interface</b></p> <ul style="list-style-type: none"> <li>• 4x3 matrix keyboard</li> <li>• Trackpad</li> <li>• LED indicators</li> <li>• Magnetic buzzer indicator</li> </ul> <p><b>Sensors</b></p> <ul style="list-style-type: none"> <li>• Accelerometer/Gyro (BMI160)</li> <li>• PDM microphone</li> </ul> <p><b>Actuator</b></p> <ul style="list-style-type: none"> <li>• IR LED</li> </ul>	<p><b>Audio capabilities</b></p> <ul style="list-style-type: none"> <li>• PDM microphone input</li> <li>• 16-bit, 8 or 16 kHz sampling</li> <li>• IMA ADPCM encoder</li> <li>• Adaptive audio rate</li> </ul> <p><b>BLE Services</b></p> <ul style="list-style-type: none"> <li>• Battery service</li> <li>• Device information service</li> <li>• HOGP</li> <li>• SUOTA service (Dialog proprietary)</li> <li>• Dialog Audio service (Dialog proprietary)</li> </ul>
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<b>NEW FEATURES</b>			
-	N/A		
<b>FIXES / IMPROVEMENTS</b>			
-	N/A		
<b>Documentation</b>			
1	UM-B-086_DA14585_Voice_RCU_Software_Manual_v1.0.pdf		
2	UM-B-087_DA14585_Voice_RCU_Hardware_Manual_v1.0.pdf		
3	Voice_RCU_Quick_Start_Guide_v1.0.pdf		

### 2.2 Issues or Limitations

#	OPEN ISSUES & LIMITATIONS
1	Maximum key matrix setup is 16 rows x 16 columns
2	SPI Flash operations are not prohibited when battery level is low. This may result in data corruption.
3	Only BMI160 sensor is supported in motion module
4	BLE white lists are not supported
5	Privacy feature implementation is pending
6	Keyboard delayed wakeup feature implementation is pending
7	Mouse feature implementation is pending
8	Dynamic calculation of maximum number of packets pre connection interval is pending. Currently symbol MAX_NUM_OF_PACKETS_PER_CONNECTION is used for bandwidth calculations.

### 2.3 Changes in SDK code

#	CHANGES
1	Moved updating of app_env from gapc_connection_req_ind_handler() to default_app_on_connection()
2	Easy timer ID is passed as a parameter to timer callback function
3	SUOTA callback is called with parameter SUOTAR_IN_PROGRESS to notify the application that SUOTA is ongoing
4	Changed HOGPD_NB_REPORT_INST_MAX to 8
5	Added skip slave latency feature
6	Added BLE_THROUGHPUT_METRICS feature
7	Increased __SCT_BLE_TX_DESC_DATA size
8	Changed CFG_NB_PRF to 5
9	Added MEASURE_CPU_LOAD and INDICATE_IDLE_STATE features
10	Fixed arch_console not to block in interrupt context
11	Added i2c_core.c from SDK5
12	Added spi_flash_block_erase_no_wait() function
13	Added llc_con_update_ind() patch in system library
14	Changed mkimage utility to search for both SW_VERSION and SDK_VERSION symbols in the version file
15	Changed rf_rssi_convert() to return the RSSI in dBm

### 2.4 MAJOR Release Files

#	File Name	Description
1	DA14585_RCU_v_6.140.2.17.zip	RELEASE FILE
2	DA14585_Voice_RCU_SW_Release_Notes_v_6.140.2.17.pdf	RELEASE NOTES

### 3.0 Release History

## Appendix I: Versioning Rules

Each software version number string consists of 4 numbers. MAJOR.BRANCH.MINOR.BUILD

### Versioning rules:

**#MAJOR:** It is increased by 1 only if the project undergoes a major modification, e.g. major ROM changes. It practically changes only when the project sources undergo major restructuring affecting most of the repository. It is initialized at 1.

**#BRANCH:** Should be 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.

**#MINOR:** Odd numbers indicate Engineering (or Patch or Binary) versions, even numbers indicate Full release versions or Release Candidates of Full versions. Each Full release increases this number by one. After the Full release, the number is increased by 1 again. Therefore, Project releases correspond to release numbers like 2.0.1.xxx, 2.0.2.xxx. etc. The #MINOR number is initialized at 1.

**#BUILD:** The # BUILD number increases by 1 at every repository update and thus indicates the total number of changes since repository initialization. The BUILD number is initialized at 1.