

# Release Notes

## SmartBond™ Wireless Ranging SDK

### SW-B-024

#### Abstract

*This document contains the release notes for Dialog Semiconductor's SmartBond™ Wireless Ranging Software Development Kit, version 10.440.8.6 for use with the DA1469x Bluetooth LE device family.*

**SmartBond™ Wireless Ranging SDK**

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## SmartBond™ Wireless Ranging SDK

### 1 Terms and Definitions

DTE	Dialog Tone Exchange
GA	General Access
IQ	In-phase and Quadrature
LA	Limited Access
LE	Low Energy
SDK	Software Development Kit
WiRa	Wireless Ranging

### 2 Release Data

**Table 1: Information Table**

<b>Software</b>	SmartBond™ Wireless Ranging SDK
<b>Device Number</b>	DA14691, DA14695, DA14697, DA14699
<b>Software Release Date</b>	2 July 2020
<b>Software Version Number</b>	10.440.8.6
<b>Software Release Type (Note 1)</b>	FULL (GA)

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

### 3 License

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

### 4 Related Documentation and References

- [1] UM-B-137, SmartBond™ Wireless Ranging SDK, Revision 1.0, User Manual, Dialog Semiconductor.
- [2] UM-B-090, DA1469x Getting Started with the Development Kit, Revision 1.0, User Manual, Dialog Semiconductor.
- [3] UM-B-092, DA1469x Software Platform Reference, Revision 5.0, User Manual, Dialog Semiconductor.

## SmartBond™ Wireless Ranging SDK

### 5 Release Description

#### 5.1 Overview

This is a full release based on SDK 10.0.8.105 release that runs on SDK DA1469x AB devices. It adds support for wireless ranging based on Dialog Tone Exchange and Bluetooth LE.

#### 5.2 New and Updated Features of 10.440.8.6

**Table 2: 10.440.8.6 New Features**

Feature Number	Description
6_1	Addition of Kalman filter on distance output

#### 5.3 Fixes and Improvements since 10.440.8.4

**Table 3: 10.440.8.6 Fixes and Improvements**

Feature Number	Description
6/1	Improved performance at short ranges, prevents saturation at high signal strengths
6/2	Correction to the multipath algorithm in handling of very short distances
6/3	Automatic compensation of XTAL offset influence

#### 5.4 Known Limitations of 10.440.8.6

**Table 4: 10.440.8.6 Known Limitations**

Issue Number	Description
4.1	Certain complex reflective environments may result in (some) temporary unwanted/undesired results

## 6 Release History

### 6.1 Version 10.440.8.4

#### 6.1.1 Overview

This is a full release based on SDK 10.0.8.105 release that runs on SDK DA1469x AB devices. It adds support for wireless ranging based on Dialog Tone Exchange and Bluetooth LE.

#### 6.1.2 New and Updated Features of 10.440.8.4

**Table 5: 10.440.8.4 New Features**

Feature Number	Description
4_1	Dialog Tone Exchange
4_2	Bluetooth LE IQ Data support

#### 6.1.3 Known Limitations of 10.440.8.4

**Table 6: 10.440.8.4 Known Limitations**

Issue Number	Description
4.1	Certain complex reflective environments may result in (some) temporary unwanted/undesired results

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## SmartBond™ Wireless Ranging SDK

### 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. BRANCH. MINOR. and BUILD.

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

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

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**SmartBond™ Wireless Ranging SDK****Document Revision History**

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

<b>Revision</b>	<b>Date</b>	<b>Description</b>
2.0	2-July-2020	Release 10.440.8.6
1.0	15-April-2020	Initial version for release 10.440.8.4

## SmartBond™ Wireless Ranging SDK

### Document 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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## Contacting Dialog Semiconductor

#### United Kingdom (Headquarters)

*Dialog Semiconductor (UK) LTD*

Phone: +44 1793 757700

#### Germany

*Dialog Semiconductor GmbH*

Phone: +49 7021 805-0

#### The Netherlands

*Dialog Semiconductor B.V.*

Phone: +31 73 640 8822

#### Email:

[enquiry@diasemi.com](mailto:enquiry@diasemi.com)

#### North America

*Dialog Semiconductor Inc.*

Phone: +1 408 845 8500

#### Japan

*Dialog Semiconductor K. K.*

Phone: +81 3 5769 5100

#### Taiwan

*Dialog Semiconductor Taiwan*

Phone: +886 281 786 222

#### Web site:

[www.dialog-semiconductor.com](http://www.dialog-semiconductor.com)

#### Hong Kong

*Dialog Semiconductor Hong Kong*

Phone: +852 2607 4271

#### Korea

*Dialog Semiconductor Korea*

Phone: +82 2 3469 8200

#### China (Shenzhen)

*Dialog Semiconductor China*

Phone: +86 755 2981 3669

#### China (Shanghai)

*Dialog Semiconductor China*

Phone: +86 21 5424 9058