

# BDE-BLEM301 USER GUIDE

## Introduction

This user guide is for BDE-BLEM301, a Bluetooth 5.1 Low Energy Module based on Dialog ultra-low power Bluetooth 5.1 Low Energy SoC DA14531. BDE-BLEM301 is pin to pin compatible with Dialog DA14531 TINY™ Bluetooth Module - DA14531MOD. All the software tools and hardware development kits for DA14531MOD can be used for BDE-BLEM301. BDE-BLEM301 is built to meet your low cost and ultra-low power consumption needs.

## Get Ready

The following tools are recommended to develop with BDE-BLEM301.

Hardware tools:

- PC or Laptop
- [DA14531 Pro Dev](#) DA14531-00FXDEVKT-P as Mother-board (buy from [Mouser](#) or [Digikey](#))
- Module Daughter-Card DA14531-00FXDB-P (buy from [Mouser](#) or [Digikey](#))
- USB cable for power supply and debugging

Software tools:

- Terminal software such as RealTerm, Putty or Tera Term.
- SmartSnippets™ Studio 2.0.10 or later from this link [Development Tools](#)
- [Software Development Kit \(SDK\)](#)
- [KEIL MDK ARM:](#)
- [FTDI Driver for Windows](#)
- [Segger J-Link SW driver](#)
- Bluetooth® LE explorer application
  - [LightBlue® Explorer](#) (iOS). Or scan the QR code below.
  - [BLE Scanner](#) (Android). Or Scan the QR code below.
  - Type **chrome://bluetooth-internals/#devices** into the address field of the Chrome Browser to use the built-in tool (PC with Win10 or MAC book)

**Bluetooth 5.1 LE Module**

LightBlue® Explorer for iOS



BLE Scanner for Android

**Build Your First Application**

Once you have the Hardware and Software tools in place, please following the following links to:

- [Connect the Hardware](#)
- [Setup the terminal](#)
- [Install the Software](#)
- [Build the first Application](#)

**Other Resources**

DA14531 SDK User Manual:

<http://lpcps-docs.dialog-semiconductor.com/UM-B-117-DA14531-Getting-Started-With-The-Pro-Development-Kit/index.html>

Dialog Serial Port Service(DSPS):

<https://www.dialog-semiconductor.com/products/dialog-serial-port-service-dsps>

SmartBond™ - CodeLess AT Commands:

<https://www.dialog-semiconductor.com/products/smartbond-codeless-commands>

DA14531 SmartBond TINY™ Module Information Page:

<https://www.dialog-semiconductor.com/products/bluetooth-module-da14531-smartbond-tiny>

DA14531 SoC Information Page:

<https://www.dialog-semiconductor.com/products/connectivity/bluetooth-low-energy/products/da14530-and-da14531>



## Bluetooth 5.1 LE Module Revision History

Revision	Date	Description
V1.1	21-Mar-2019	Initial Release
V2.0	14-Apr-2021	Editorial Correction
V2.1	21-July-2023	link

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