



Areus Bluetooth Low Energy Module

Integration Manual

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1. Preface

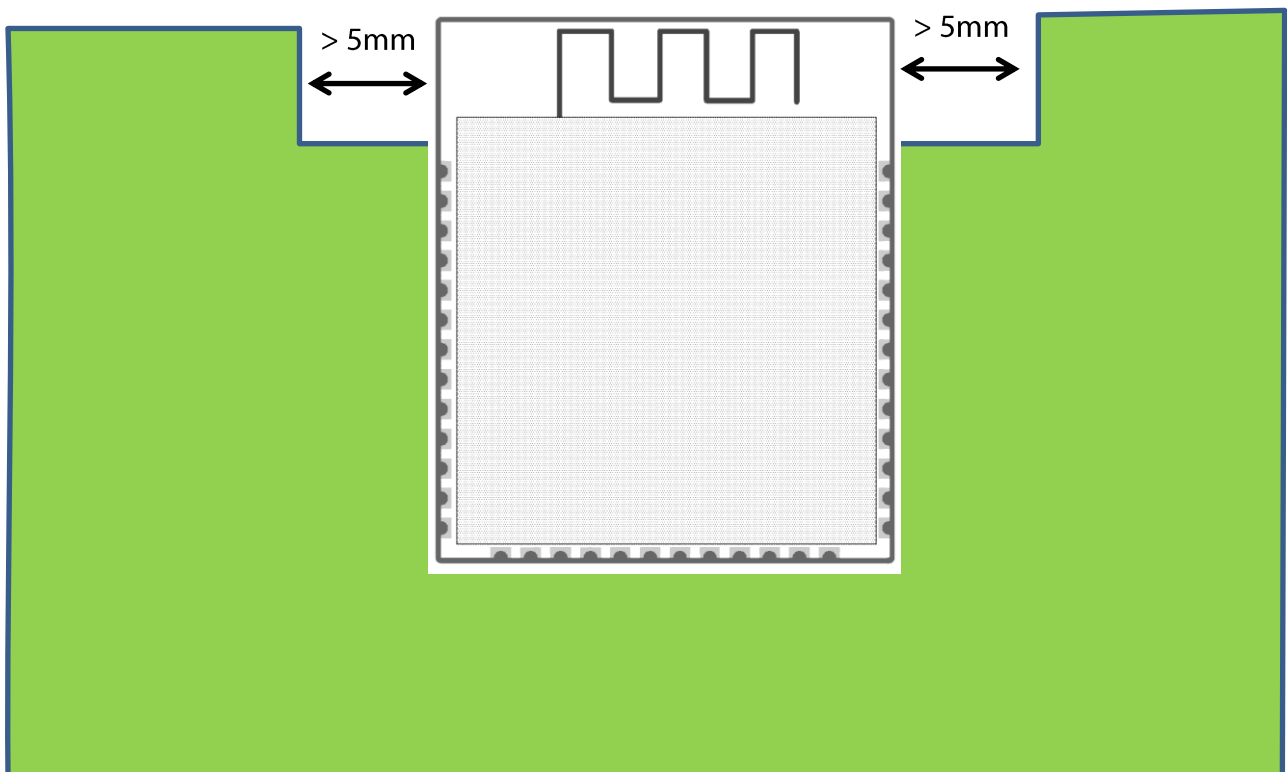
In order to get the best performance and obey regulations, the following guides must be followed when integrating the Areus Bluetooth Low Energy Module into customer applications. Care has to be taken in three areas: Hardware integration, Software and Documentation. This manual describes the necessary steps in each area.

2. Hardware

The Areus Bluetooth Module is designed for direct soldering onto the target applicaiton PCB. Standard JEDEC PCB-free reflow soldering temperature profiles apply.

Schematic and Layout as well as STEP 3D models are available for custom board design upon request.

For best RF performance, place the module at the edge of the target board, cutting out the board PCB as shown:



Keep a minimum distance of 5 mm between any high speed or high energy switching signals and the Areus Bluetooth Low Energy Module.

Keep any metal parts (e.g. housing, mounting screws etc.) at least 10 mm away from the module's PCB antenna.

3. Software

The Areus Bluetooth Low Energy Module's firmware consists of three parts: Boot loader, Bluetooth Low Energy Stack („SoftDevice“) and application firmware. Bootloader and Soft Device are available from Nordic Semiconductor's website or from Areus upon request.

Firmware programming is performed via an ARM SWD-Interface compatible programmer, e.g. a Segger J-Link / J-Flash device. For details, please refer to Your programmer's manual.

For bootloader and SoftDevice programming, Nordic Semiconductor's nRFgo-Studio can be used. This tool is available on Nordic Semiconductor's website free of charge. For details please refer to www.nordicsemi.com.

4. Marking and Documentation

In order to obey regulation requirements, the following statement must be printed on the target application at a user-readably position:

Contains FCC ID: 2AIO7BLE

The end user manual must contain the following regulatory information:

Contains FCC ID: 2AIO7BLE

This device complies with Industry Canada licence-exempt RSS standard(s) and part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

5. Regulatory and Safety Information

End products using the Areus Bluetooth Low Energy Module must comply with all applicable regulations. Please contact Areus Customer Support for assistance.

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FCC ID: 2AIO7BLE

IC: 21720-BLE



6. Revision History

Version	Issue Date	Author	Modifications
1.0	7.11.2016	O. Dengler	Initial version
1.1	10.11.2016	O. Dengler	Added regulatory statements