

A÷OM A÷ION

Integration Manual

M52840-QI

11/13/2019

Revision 0.6

Arnon T.

Document Revisions Control

Revision	Issued by	Date	Modifications
0.1	Arnon T.	6-Oct.-2019	First draft
0.3	Arnon T.	24-Oct.-2019	Removed sensitive information
0.4	Arnon T.	30-Oct-2019	Removed pinout, Removed confidentiality notice
0.5	Arnon T.	9-Nov-2019	Added Warning
0.6	Arnon T.	11-Nov-2019	Move the Warning to 3.3

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Terms and abbreviations

ADC	Analog to Digital Converter
AFE	Analog Front End
BLE	Bluetooth Low Energy
BOM	Bill of Materials
GPIO	General Purpose I/O
PCB	Printed Circuit Board
TBD	To be defined

1 Overview

M840-QI is BLE5 module using Nordic nRF52840 SoC.

1.1 Block diagram

The following is a block diagram of the M840-QI module

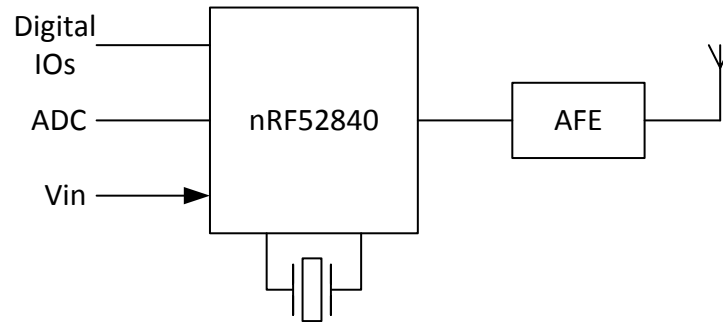
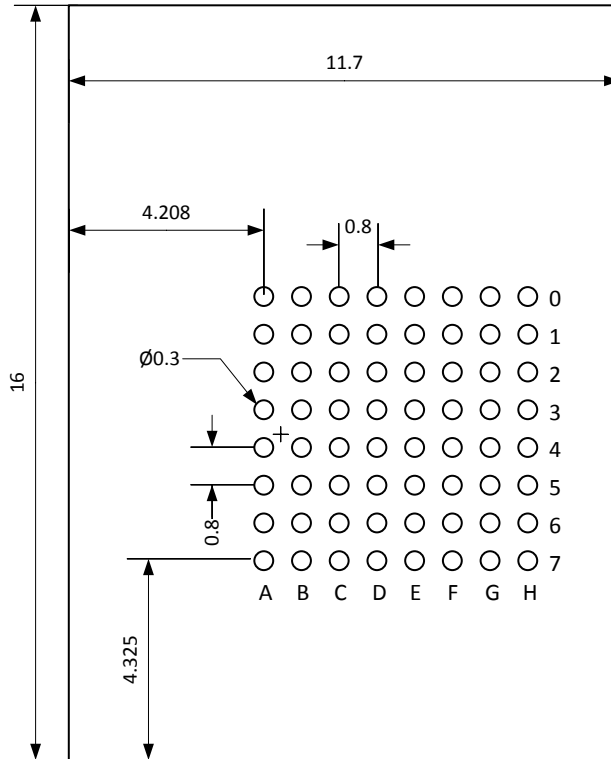


Figure 1: M840-QI Block Diagram

1.2 Features

- nRF52840-QIAA chip
- Integrated PCB antenna
- On board 32MHz crystal
- Input voltage: 1.7v-3.6v (Recommended operating conditions)
- 16x11.7x2.2mm
- Components on one side

2 Mechanical Specification



Notes:

1. Dimensions are in mm
2. Top view

3 Regulatory Compliance and Industry Certifications

This module is designed to meet, and upon commercial release will meet, the requirements of the Federal Communications Commission (FCC) of the United States

3.1 Part 15 Subpart B disclaimer

This modular transmitter is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant

The host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification

3.2 2 part FCC Compliance Statement

This device complies with FCC Rules Part 15. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

3.3 Important Compliance Information For North American Users

The M52840-QI module, upon commercial release, will have been granted modular approval for mobile applications. Integrators may use the module in their final products without additional FCC/IC (Industry Canada) certification if they meet the following conditions. Otherwise, additional FCC/IC approvals must be obtained:

1. At least 20 cm separation distance between the antenna and the user's body must be maintained at all times.
2. A label must be affixed to the outside of the end product into which the M52840-QI module is incorporated, with a statement similar to the following: · This device contains FCC ID: 2AT8A-M52840-QI-V1 Contains transmitter module IC: NRF52840-QIAA
3. A user manual with the end product must clearly indicate the operating requirements and conditions that must be observed to ensure compliance with current FCC/IC RF exposure guidelines.

The end product with an embedded M52840-QI module may also need to pass the FCC Part 15 unintentional emission testing requirements and be properly authorized per FCC Part 15.

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