

D52Q ANT Module

Part of the D52 Module Series from Dynastream Innovations

ANT® Operation (using the latest s212 or s332 SoftDevice)

- 79 selectable RF channels (2402 to 2480 MHz) *(preliminary)*
- Flexible network topologies: peer-to-peer, star, tree, high node count, mesh and more
- Broadcast, acknowledged, and burst data communication modes
- Built-in device search and pairing
- Built-in interference handling and radio coexistence management with application radio disable requests and application flash write/erase requests
- Enhanced ANT features:
 - Supports up to 15 logical channels each with configurable channel periods (5.2ms - 2s)
 - Advanced burst data transfer modes (up to 60kbps)
 - Optional channel encryption mode (aes-128)
 - Supports up to 8 public, private and/or managed networks
 - Advanced power management features to optimize application power consumption including Event Filtering and Selective Data Updates
 - Asynchronous transmit channel
 - Fast channel initiation

ANT/Bluetooth® Smart operation (when loaded with the latest s3XX soft-device)

- ANT operation functions as S212
- Bluetooth 4.2 compliant low energy single-mode protocol stack suitable for Bluetooth Smart products
 - Concurrent Central, Observer, Peripheral, and Broadcaster roles with up to:
 - Multiple connections as a central
 - One connection as a peripheral
 - Observer
 - Broadcaster
 - Link layer
 - L2CAP, ATT, and SM protocols
 - GATT and GAP APIs
 - GATT Client and Server

[future: module picture]

Module Hardware

- 20 x 20 x 2.7mm module using the nRF52832 chip from Nordic Semiconductor in two SKUs:
 - D52QD2M4IA – Module
 - D52QD2M4IA-A – Module + accelerometer
 - Layout compatible with N5 M4, AP2, C7
 - Additional LGA pads for extended nRF52 features
- Integrated printed antenna
- On-board 32.768 kHz and 32 MHz crystal clocks
- Supply Voltage range:
 - 1.7V to 3.6V
 - 1.71V to 3.6V when using accelerometer
- Internal DC/DC converter supported
- Operating temperature: Industrial (-40°C to +85°C)
- 29 GPIOs
 - 23 GPIOs for accelerometer SKU
- Programmable output per channel from -20dBm up to 4dBm
- Excellent receiver sensitivity
 - -92.5dBm ANT mode
 - -96.5dBm BLE mode
- 1dBm resolution RSSI
- Total 512kB flash, 64kB RAM
- SPI, I2C and UART interface
- ARM SWD interface
- Available onboard ST LIS2DH accelerometer
 - 3-axis MEMS accelerometer
 - 2 programmable interrupt pins
- Radio regulatory approval for major markets *(engineering samples are provided pre-certification)*
- BLUETOOTH SIG qualification
- RoHS compliant

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4 Notices and Restricted use Information

4.1 Preliminary Data Sheet

Please note that this is a preliminary data sheet; information in this data sheet is subject to change before the final product is available.

4.2 Notices and restricted use:

- Information contained in this document is provided only for your ("Customer" or "you") convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications.
- Dynastream Innovations Inc. ("DYNASTREAM") makes no representations or warranties of any kind whether express or implied, written or oral, statutory or otherwise, related to the information, including but not limited to its condition, quality, performance, merchantability or fitness for purpose. DYNASTREAM disclaims all liability arising from this information and its use.
- DYNASTREAM does not assume any responsibility for the use of the described ANT module ("the Module(s)"). Dynastream makes no representation with respect to the adequacy of the module in low-power wireless data communications applications or systems. Any Products using the Module must be designed so that a loss of communications due to radio interference or otherwise will not endanger either people or property, and will not cause the loss of valuable data. DYNASTREAM assumes no liability for the performance of products which are designed or created using the Modules.
- The Modules are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Module could create a situation where personal injury or death may occur. If you use the Modules for such unintended and unauthorized applications, you do so at your own risk and you shall indemnify and hold DYNASTREAM and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that DYNASTREAM was negligent regarding the design or manufacture of the Product.
- DYNASTREAM believes the information contained herein is correct and accurate at the time of its release. However, the information contained in this document is subject to change without notice and should not be construed as a commitment by DYNASTREAM unless such commitment is expressly given in a covering document.

4.3 Warranty Information

This product is warranted to be free from defects in materials or workmanship for 1 year from the date of purchase of the end customer. Within this period, Dynastream Innovations Inc. (Dynastream) will, at its sole option, replace any products that fail in normal use. Such replacement will be made at no charge to distributors or companies who purchase this product directly from Dynastream, provided the distributor or company shall be responsible for any transportation cost. This warranty does not apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature or external causes; (iii) damage caused by service performed by anyone who is not an authorized service provider of Dynastream; (iv) damage to a product that has



been modified or altered without the written permission of Dynastream. In addition, Dynastream reserves the right to refuse warranty claims against products or services that are obtained and/or used in contravention of the laws of any country.

Replaced products have 1 year warranty as stipulated in this term.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE.

IN NO EVENT SHALL DYNASTREAM BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT.

Dynastream retains the exclusive right to replace (with a new or newly-overhauled replacement product) the device or software or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE THE SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

To obtain warranty service, the distributor or company shall contact Dynastream for shipping instructions and a return material authorization (RMA) tracking number. Securely pack the device and a copy of the original sales receipt, which is required as the proof of purchase for warranty claims. Write the tracking number clearly on the outside of the package. Send the device, freight charges prepaid, to Dynastream.

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4.4 SoftDevice Licensing and Use

- (Final terms TBD) D52 modules are preloaded with the ANT S212 SoftDevice and Network Processor application.
- (Final terms TBD) Licensing and distribution information for custom applications using the S212 and S332 SoftDevices built by and available from Dynastream is available on the Dynastream website. Refer to the following information:
 - <https://www.thisisant.com/developer/components/nrf52832/>

4.5 Regulatory Compliance Information (TBD)

The D52 family of modules carry regulatory pre-approvals for many major global markets. Please contact Dynastream Innovations, Inc., if you have any questions about the countries that have approved use of the D52 modules.



5 D52 ANT SoC Module Family Overview

The D52 ANT SoC Module series is built with the nRF52832 chip from Nordic Semiconductor. The family is comprised of modules available in layouts standard to Dynastream Innovations: both M4 (outlined in this data sheet) and smaller sized M8 modules will be available. The module family leverages the S132, S212 and S332 SoftDevices from Nordic Semiconductor and Dynastream Innovations for ANT and Bluetooth Smart applications.

6 D52Q ANT SoC Module Overview

Using the QFN (6x6mm) package of Nordic Semiconductor's nRF52832 chip, the D52Q ANT SoC module series offers support for both ANT® and Bluetooth® Smart and enables both protocols to run concurrently, depending on the loaded protocol stack.

The D52QD2M4IA module is a 20x20x2.8mm turnkey system hardware solution including antenna, onboard 32.768 kHz and 32 MHz crystals, DC/DC converter and 29 GPIOs with 8 analogue inputs. A module variant that includes an optional on-board accelerometer (D52QD2M4IA-A) is also available.

The D52 modules are pre-programmed with the following software components:

- S212 SoftDevice developed by and available from ANT Wireless (scalable ANT protocol stack with 15 channel support)
- ANT network processor application

SoftDevices are protocol stack solutions for the nRF52 SoCs. There are multiple SoftDevice choices available from the Dynastream and Nordic Semiconductor websites. The ANT network processor application provides the standard ANT serial interface front-end that is connectable to an external application controller.

The D52Q module's pre-programmed image can be easily replaced via the onboard SWD interface pins using off-the-shelf ARM programming tools.

The D52 module series, if loaded with the ANT and/or Bluetooth low energy stack *will be (preliminary)* certified to comply with radio regulation or standards covering major markets include North America, Europe, Australia, New Zealand and Japan. The D52 ANT SoC module series *will also be (preliminary)* qualified by the BLUETOOTH SIG.

The perimeter of the D52QD2M4IA(-A) has AP2, C7 and N5 M4 compatible pin layouts appear, and a new LGA matrix has been added to the base of the module extending further capabilities of the nRF52832 chip (e.g., NFC, more I/O). For more information about module layout, please refer to Figure 4: D52Q M4 Bottom View, later in this document.

Dynastream Innovations also makes starter kits supporting the D52Q available.



6.1 Nomenclature

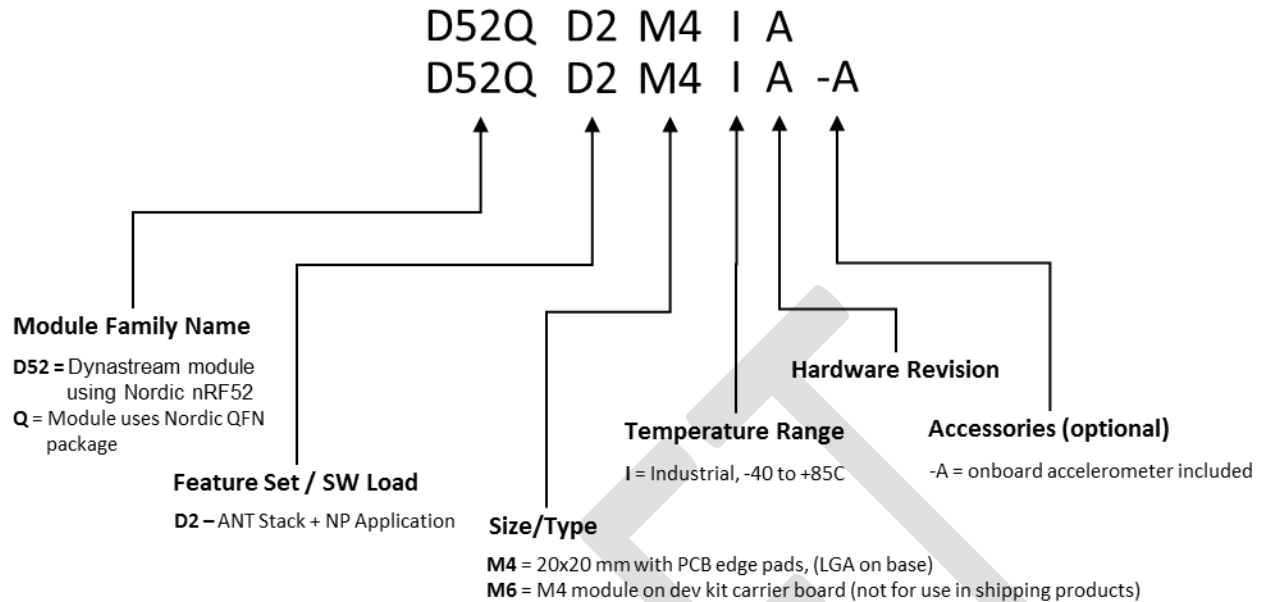


Figure 1: D52Q Module Nomenclature

6.2 Production Tracking Code

Included in final data sheet.

6.3 Models

picture	Part no	Size (mm)	Chip	RAM Size	Sw preload		Accessories
					SoftDevice	ANT-NP	
	D52QD2M4IA	20x20	nRF52832	64k			-
	D52QD2M4IA-A		nRF52832	64k	v. TBD	v. TBD	LIS2DH accelerometer

Table 1: D52 ANT SoC Module Series Model List

6.4 D52 ANT SoC Module Starter Kits and Components

The kit contents are described in Table 2, with a ready to run demo application pre-loaded on the modules out-of-box.

D52 Starter Kit		Part No: TBD	
Part No.	Description	Quantity	Picture
D52QD2M6IA-A	M4 module on carrier board with 20-pin Molex connector, NFC antenna through-hole, SWD programming header, additional headers for i/o pins	2	
ANTBAT2	Battery board with a Molex socket, a reset button and a five-position dip switch	1	
ANTIO1	I/O board with a Molex connector, a Molex socket, 4 LEDs and 4 buttons	1	
ANTUIF1	USB interface board with a Molex socket	1	
	Segger J-Link Lite Programmer	1	

Table 2: D52 ANT SoC Module Starter Kit



7 Product Overview

7.1 Block Diagrams

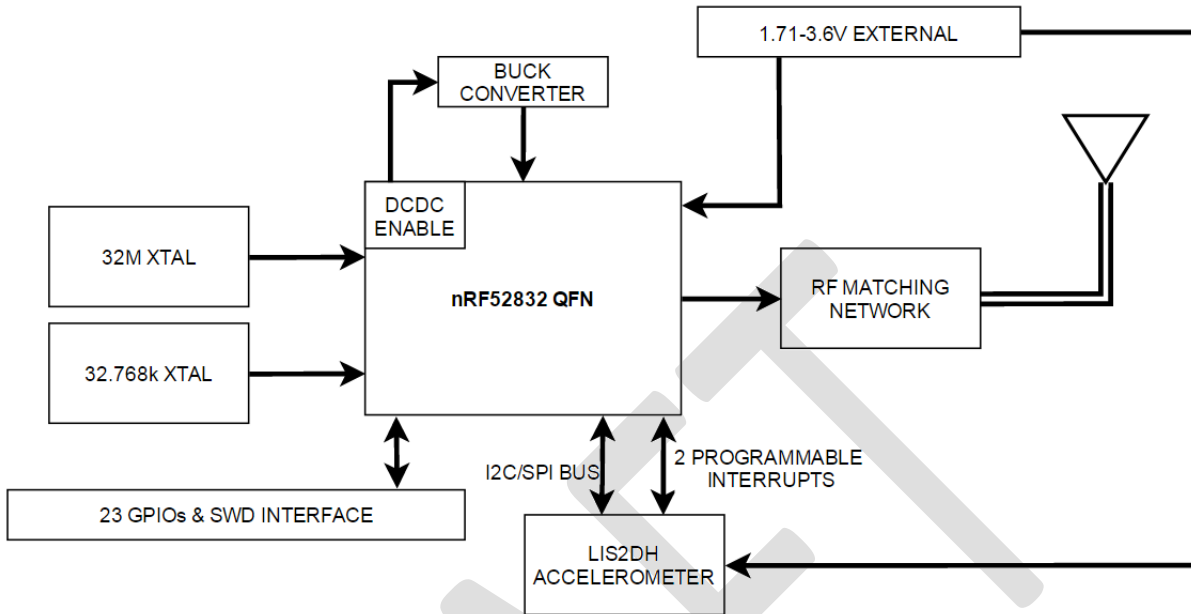


Figure 2: D52QD2M4IA-A (with accelerometer) Module Block Diagram

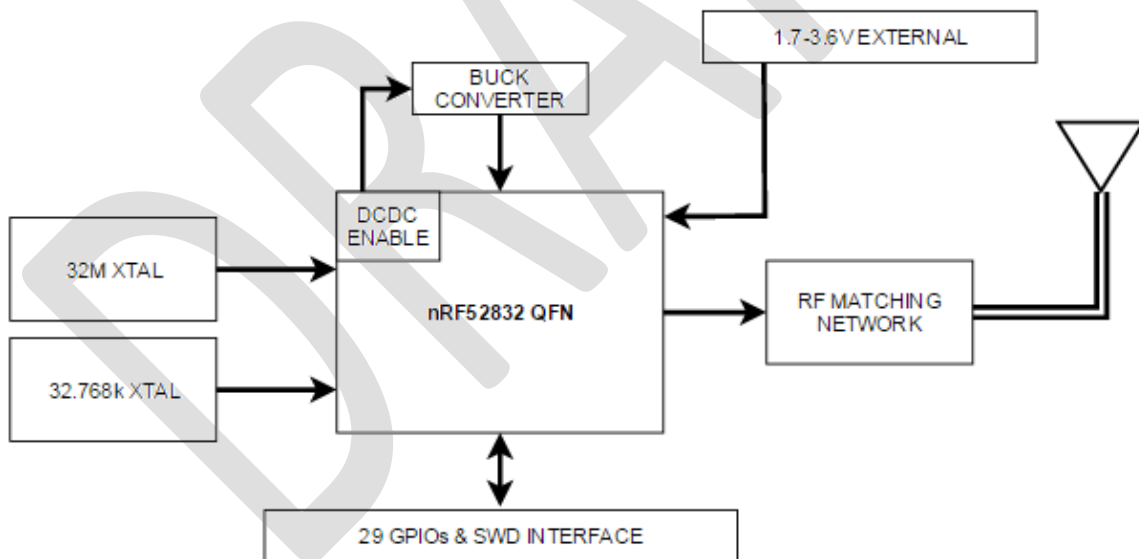


Figure 3: D52QD2M4IA Module Block Diagram



7.2 Pin-outs

Please refer to Appendix A – Using the ANT Network Processor Configuration for ANT Serial Line specification.

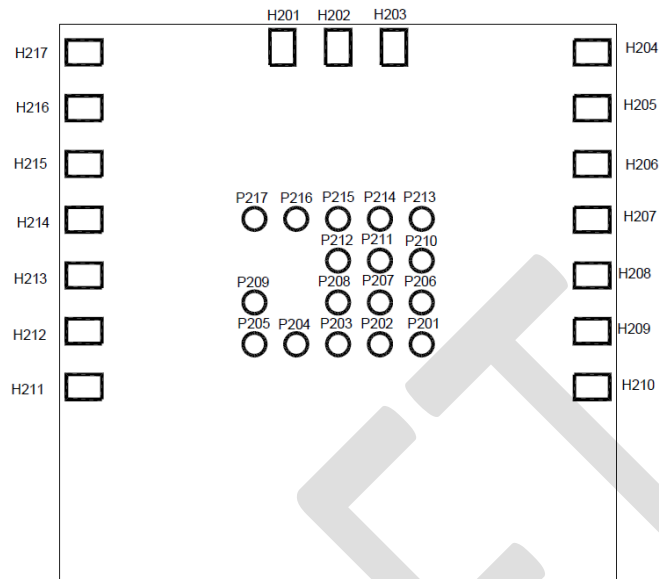


Figure 4: D52Q M4 Bottom View

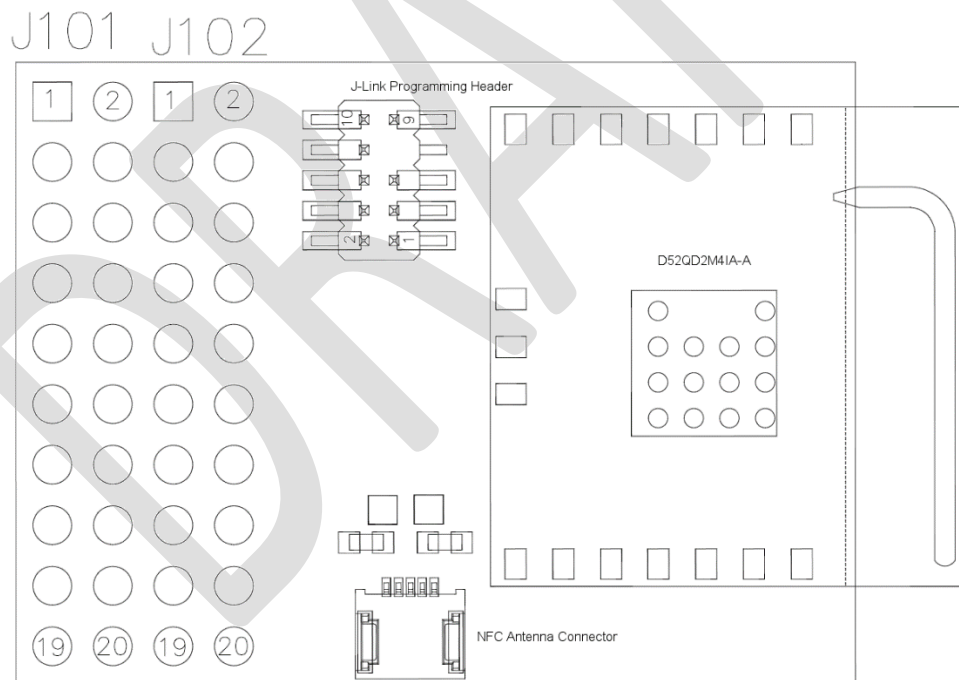


Figure 5: D52Q M6 - Top View



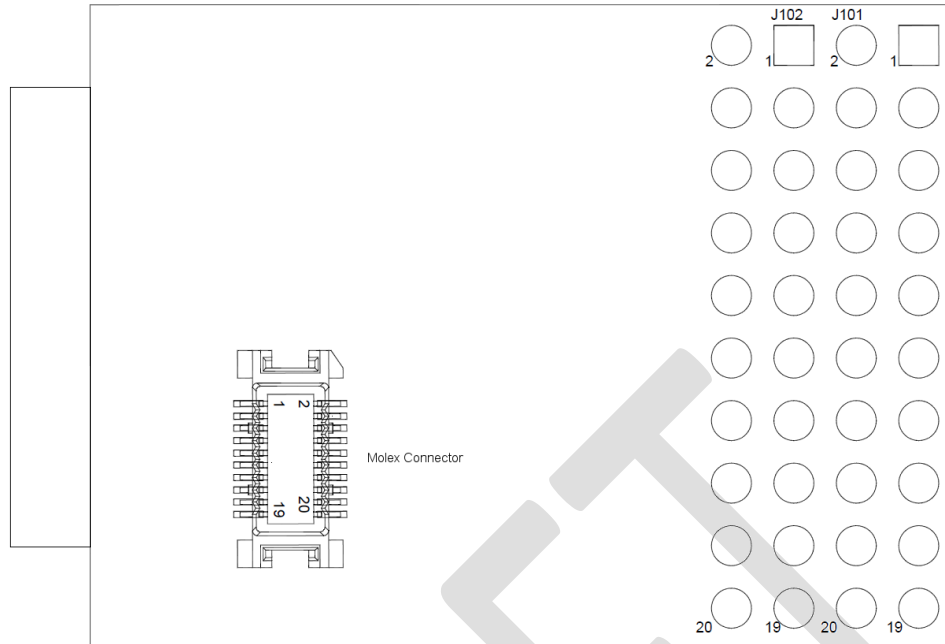


Figure 6: D52Q M6 - Bottom View

D52Q M4 Pin	D52Q M6		LIS2DH Pin (D52Q D2M4IA-A Only)	nRF52832 Pin Name	Description
	Molex Connector	Dev Board Pin			
H201	8	J102.19		SWDIO	Serial Wire Debug I/O for debug and programming
H202	10	J101.06		P021/RESET	System Reset pin
H203	1	J101.01		VCC	Power Supply Pin
H204	19	J101.02, 08, 20		VSS	Ground
H205	6	J101.07		SWDCLK	Serial Wire Debug clock input for debug and programming
H206	17	J101.09		P006	General Purpose I/O
H207	15	J101.10		P007	General Purpose I/O
H208	-	J102.01		P002/AIN0	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
H209	11	J101.17		P008	General Purpose I/O
H210	7	J101.19		P011	General Purpose I/O
H211	4	J101.04, 15		P017	General Purpose I/O
H212	3	J101.03, 11		P016	General Purpose I/O
H213	5	J101.18		P015	General Purpose I/O
H214	9	J101.20		P014	General Purpose I/O
H215	-	-		P013	General Purpose I/O
H216	-	J102.15		P031/AIN7	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
H217	2	J101.05		P012	General Purpose I/O
P201	-	-		NFC2/P010	NFC antenna connection / General Purpose I/O
P202	-	J102.04		P019	General Purpose I/O
P203	-	J102.06		P020	General Purpose I/O
P204	-	J102.08		P022	General Purpose I/O
P205	-	J102.10		P023	General Purpose I/O
P206	-	-		NFC1/P009	NFC antenna connection / General Purpose I/O
P207	-	J102.07		P005/AIN3	General Purpose I/O / Analog SAADC/COMP/LPCOMP input



D52Q M4 Pin	D52Q M6		LIS2DH Pin (D52Q D2M4IA-A Only)	nRF52832 Pin Name	Description
	Molex Connector	Dev Board Pin			
P208	-	J102.02		P018	General Purpose I/O
P209	-	J102.12		P024	General Purpose I/O
P210	-	J102.05		P004/AIN2	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
P211	-	J102.03		P003/AIN1	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
P212	-	J102.16	INT2	P026	General Purpose I/O
P213	-	J102.11	SDA/SDI/SDO	P029/AIN5	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
P214	-	J102.13	SCL/SPC	P030/AIN6	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
P215	-	J102.09	SDO/SA0	P028/AIN4	General Purpose I/O / Analog SAADC/COMP/LPCOMP input
P216	-	J102.18	CS	P027	General Purpose I/O
P217	-	J102.14	INT1	P025	General Purpose I/O

Table 3 - D52 Module Series Pin-Out

7.3 (Optional) Accelerometer Specification

The D52Q module family supports an accelerometer accessory on the D52QD2M4IA-A. The accelerometer is the LIS2DH by STMicroelectronics. To make use of the accelerometer, the following pins are consumed:

D52QD2M4IA-A Pin	nRF52832 Pin	LIS2DH Pin
P212	P026	INT2
P213	P029/AIN5	SDA/SDI/SDO
P214	P030/AIN6	SCL/SPC
P215	P028/AIN4	SDO/SA0
P216	P027	CS
P217	P025	INT1

Table 4: Accelerometer Pin Assignment

SPI or I2C can be used to communicate with the accelerometer. To use I2C, pull-up resistors will need to be added to the appropriate pads.

For more information about D52Q pin assignments, refer to **Table 3 - D52 Module Series Pin-Out**.

For more information about this component including data sheet and errata, please refer to the STMicroelectronics website:

- http://www.st.com/web/en/catalog/sense_power/FM89/SC444/PF252928.

7.4 Preloaded Software

The D52Q module is preloaded with the S212 SoftDevice and the ANT Network Processor (NP) code as illustrated below. Depending on the module revision, the preloaded code versions vary. Please refer to Appendix C for further details.

- S212 SoftDevice developed by and available from Dynastream – *[nRF52832 S212 SoftDevice full specification will be available for product release]*



- ANT Network Processor Application – Refer to Appendix A – Using the ANT Network Processor Configuration

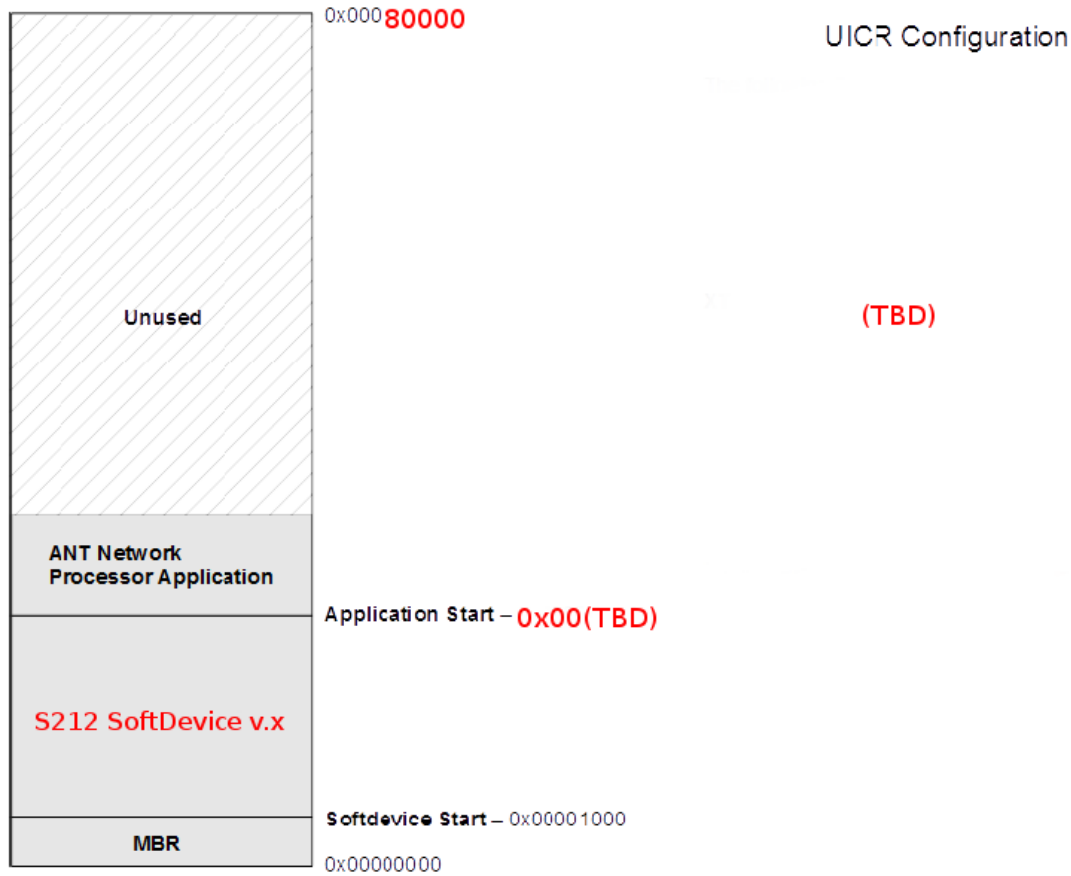


Figure 7 - Memory Map of D52Q Preloaded Software

7.5 D52 Module Programming

The D52 ANT SoC module series supports the following programming method:

- Standard Serial Wire Debug (SWD) interface

The two software components (the SoftDevice and the application code) must be version compatible to operate properly. Because each individual component can be reprogrammed, it is not safe to always assume the default factory image on a module by reading the module revision mark and referring to the history of preloaded images as summarized in Appendix C – D52Q Module Pre-Loaded Software Versions. When versions of the software components are unclear, to ensure proper operation after reprogramming, it is recommended that the module undergoes a full erasure (e.g. using the erase-all option in nrfjprog.exe/nRFgo Studio) and all desired software components be explicitly programmed onto the module.

7.5.1 Programming via SWD interface

The D52 ANT SoC Module series supports the Serial Wire Debug (SWD) interface, SWDCLK and SWDIO (refer to Table 3 - D52 Module Series Pin-Out). Programming and debugging of the module only require



common available tools, such as the Keil software development environment and the Segger J-Link programmer.

Please refer to “N5 Starter Kit User Manual” from Dynastream Innovations for reference software setup and use with ANT using the Keil software and a J-Link programmer. *(Note: this documentation reference will be updated in the final datasheet revision.)*

7.5.2 Initializing the SoftDevice

The D52 module comes with a 20ppm onboard 32 kHz crystal. When initializing the SoftDevice, it is important to set the crystal accuracy to be 20ppm. This clock source is selected when enabling the SoftDevice via the `sd_softdevice_enable` command.

7.5.3 Configuring the dc/dc converter

The D52 module can make use of the DC/DC Converter on nRF52832 chips. This can improve power consumption under certain conditions.

7.6 Design considerations

RF performance is always affected by the environment. Good design makes a product less susceptible to adverse conditions. The recommendations in this section are guidelines only; you should thoroughly test your products in the intended use case environments and make necessary modifications and trade-offs.

For design assistance purposes, a STEP model package and Altium library will be available for product release.

7.6.1 M4 (D52Q) module mounting

Guidance and diagrams will be provided for final product release.

7.6.2 M6 module mounting

The mating socket is Molex 52991-0208.

7.7 Assembly Considerations

7.7.1 Moisture Control

The module is rated at level 3 (MSL3) as defined by IPC/JEDEC J-STD-020.

To ensure good solderability of the PCB pads, it is highly recommended to always have the modules intended for reflow well sealed when in storage.

7.7.2 Solder Stencil Design of D52Q (M4) Module

Stencil diagrams will be available for module variants for final product release.

7.7.3 Cleaning Process

The module is made using no-clean solder paste. No-clean process is recommended.

8 Regulatory Approvals and Compliance

Note: *This information is pending certification. Final compliance details will be available following certification for final release.*



The D52Q ANT SoC module series, when loaded with ANT and/or BLUETOOTH low energy stack, has received regulatory approvals in the United States (FCC) and Canada (IC), and has been verified to conform to the appropriate regulations in Europe, Australia and New Zealand, and Japan; other regions TBD. The module series has been qualified by BLUETOOTH SIG. Such approvals and qualification allow the user to place the module inside a finished product and, in most cases, not require regulatory testing for an intentional radiator, provided no changes or modifications are made to the module circuitry. This does not preclude the possibility that some other form of authorization or testing may be required for the finished product. Changes or modifications could void the user's authority to operate the equipment. The end user must comply with all of the instructions provided by the Grantee, which indicate installation and/or operating conditions necessary for compliance.

8.1 United States

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

A host product manufacturer is responsible for ensuring compliance with the module(s) installed and fully operational. For example, if a host product was previously authorized as an unintentional radiator under the Declaration of Conformity procedure without containing a certified transmitter module, then a module is added, the host manufacturer is responsible for ensuring that the host continues to be compliant with the Part 15 subpart B unintentional radiator requirements after the module is installed and operational. Because this may depend on the details of how the module is integrated within the host, the module grantee (the party responsible for the module grant) shall provide guidance to the host manufacturer for ensuring compliance with the Part 15 Subpart B requirements.

This module is limited to OEM installation ONLY. The OEM Integrator is responsible for ensuring that the end-user has no manual instructions to remove or install the module. Changes or modifications not expressly approved by Dynastream could void the user's authority to operate the equipment.

If (1) the module's FCC ID is not visible when installed in the host, or (2) if the host is marketed so that end users do not have straightforward commonly used methods for access to remove the module so that the FCC ID of the module is visible; then an additional permanent label referring to the enclosed module: "Contains Transmitter Module FCC ID: O6R3067" or "Contains FCC ID: O6R3067" must be used. The host OEM user manual must also contain clear instructions on how end users can find and/or access the module and the FCC ID.

8.2 Canada

This device complies with Industry Canada's license-exempt RSSs. 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.

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'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



8.3 European Economic Area

8.4 Australia and New Zealand

8.5 Japan

8.6 BLUETOOTH Qualification

9 Electrical Specifications

9.1 Absolute Maximum Ratings

parameter	Test conditions	min	max	Unit
Supply Voltage (VCC)		-0.3	3.9	V
Voltage on any digital pin		-0.3	VCC+0.3	V
Storage temperature range		-40	85	°C
ESD	<i>ESD is TBD for final release</i>			kV
				V

Table 5: Absolute Maximum Ratings

Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated under Recommended Operating Conditions are not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

9.2 Recommended Operating Conditions

Parameter	Min	Max	Unit
Operating ambient temperature range, T _A	-40	+85	°C
Operating supply voltage	1.71 with accelerometer; 1.7 without	3.6	V

Table 6: Recommended Operating Conditions

9.3 Radio Operation Specifications and Antenna Characteristics

nRF52832 Output Setting (dBm)	Peak Antenna Gain (dBi)	EIRP (dBm)
0	1	1
+4	1	5

Table 7: D52 Module Antenna Gain

Current Consumption of Radio Operation (Transmitter):

nRF52832 Output Setting (dBm)	Typical Peak Radio Current (mA)*
0 (DCDC, 3V)	5.3
0	11.6
+4 (DCDC, 3V)	7.5
+4	16.6

Table 8: Current Consumption of Radio Operation

* For additional information regarding radio current please refer to the nRF52832 product specification from Nordic Semiconductor



To understand and properly use the radiation pattern for your design, please refer to the application note: Interpreting RF Radiation Patterns.

Radiation pattern will be confirmed at final release.

9.4 Electrical Specifications

Please refer to the nRF52832 Product Specification by Nordic Semiconductor.

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10 Mechanical Drawings

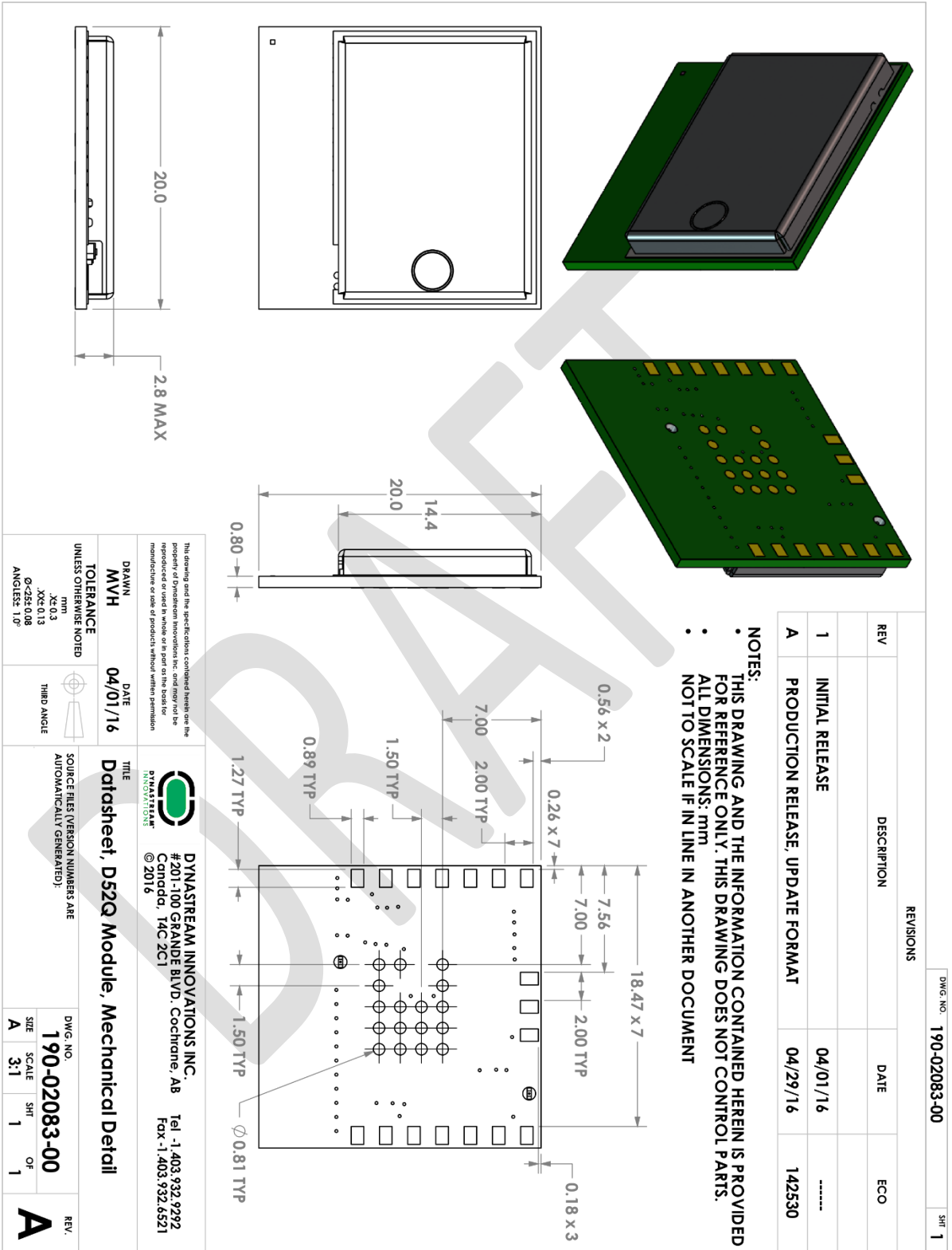


Figure 8: D52Q Mechanical Drawing

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11 Support

The D52Q ANT SoC module series uses nRF52832 from Nordic Semiconductor. You can seek technical support from Nordic Semiconductor, www.nordicsemi.com. Application support can be sought from Dynastream Innovations, www.thisisant.com.

11.1 ANT Forum

Customers are encouraged to participate in the ANT forum moderated by the application engineering team of Dynastream Innovations for any engineering discussions. Joining the ANT forum is free and open at <http://www.thisisant.com/forum>.

11.2 Technical References

Documents

- *A list of reference documents will be available for final product release.*

Software

- *A list of software resources will be available for final product release.*

Design models

- *Design model resources will be available for final product release.*

The above documents and software are available at www.dynastream.com, www.thisisant.com and/or www.nordicsemi.com. User registration or supplier product code may be required.

11.3 ANT Developer's Zone

ANT development software tools, application notes, reference designs and other public resources are found in the ANT Developer's Zone at <http://www.thisisant.com/developer>.

To begin development with the ANT+ interoperability, please become an ANT+ Adopter or ANT+ Alliance member to obtain the access to the ANT+ Adopter Zone. ANT+ documents and design tools contained in the ANT+ Adopter zone include the ANT+ Device Profiles, ANT-FS specification, ANT software (PC/Mac) libraries with source code, simulator tools (SimulANT+), ObservANT, embedded reference designs with source code, and more.

11.4 ANT and ANT+ Social Media

Further information, resources and news about ANT can be found in social media:

YouTube: <http://www.youtube.com/user/ANTAlliance>

Twitter: <http://twitter.com/ANTPlus>

Facebook: <https://www.facebook.com/thisisant>

LinkedIn: <http://www.linkedin.com/groups?gid=1379137>



12 Appendix A – Using the ANT Network Processor Configuration

Full documentation will be available for the final product. Preliminary documentation of this feature is available as a separate document. For more information, please contact Dynastream Innovations.

13 Appendix C – D52Q Module Pre-Loaded Software Versions

Software version information will be available for the final product.

Software Component	Version
S212 ANT SoftDevice built by and available from Dynastream	TBD
ANT Network Processor Application	TBD

Table 9: D52Q Preloaded Software Versions

