

# Wireless Device Technical Approval Notification - In Confidence

IT'S HOW  
WE CONNECT



Manufacturer	Nordic Semiconductors
Model	nRF9160-SICA
Market Name	nRF9160-SICA
Device Type	Embedded Module
Nature of Approval	New device
Status	Conditional Approval
Conditional item	1, please refer page #7 for details
Software detail	mfw_nrf9160_1.2.0
OS detail	Not Applicable
4G Network	Supported
3G Network	Not Supported
2G Network	Not Supported
Roaming	Supports Roaming to Europe and Americas. (Not tested as M2M devices not expected to roam)
Approval Re-assessment Date	18 May 2022
Main Device Strengths and Key Features	None
Main Device Weaknesses	None



Date	18 May 2020
To	Jouni Korhonen, Pak Kee Chan – Nordic
CC	Michael Yang – IoT Technology and Devices
From	<p><b>Nesa Packianathan</b>            Networks Engineering   Domain Engineering   Testing &amp; Device Accreditation              Address: Level 2, 91 Marsden St   Parramatta NSW 2150   Australia            Mobile: +61 412 308 796; Facsimile +61 298 654 709 (Insert 0 for +61 within Australia)</p>

# SOFTWARE INFORMATION

Device Software	mfw_nrf9160_1.2.0
Software Interrogation Sequence	Using AT Command (ATI)
TAC	35265610
Locked to Telstra Network	No
SVN	12

# HARDWARE INFORMATION

HARDWARE Version of Engineering Sample	nRF9160-SICA-B0A
HARDWARE Version of production Sample	nRF9160-SICA-B0A
Hardware Interrogation Sequence	Using AT Command(AT%HWVERSION)

# RF PLATFORM

Chipset	nRF9120- CCAAB00
Chipset Firmware Version	mfw_nrf9160_1.2.0
Application Processor	ARM Cortex-M33
Application Processor Firmware Version	NCS SDK version 1.2.0 the Zephyr RTOS uses v2.1.99(Depends on end customer)
RF Platform Used/Radio processor models	Integrated transceiver in nRF9120- CCAAB00
Flash Chipset Type and Size	Integrated 1MB for application processor

# ANTENNA

Is this device a Blue tick?	There will not be a Data Device coverage performance rating.
External RF connection	To be determined by product integrating the module

# RADIO TECHNOLOGY SUPPORT

LTE	Yes
Device Category	CAT M1
Duplex Operation Mode	Half Duplex
Coverage Enhancement Support	Yes (CE Mode A)
Power Saving Mode(PSM)	Yes
Extended Discontinuous Reception (eDRX)	No

# BAND SUPPORT

4G Network	Band 3(1800), Band 28(700)
3G Network	Not applicable
2G Network	Not applicable

# DATA THROUGHPUT CATEGORY

4G Network	CAT M1- Half Duplex (DL - 375 Kbps, UL - 375 Kbps)*
3G Network	Not applicable

\* Speed mentioned is network peak throughput

# POWER CLASS

Power Class UMTS 850/ 2100	Not applicable
Power Class LTE 700/850/900/1800	3

# AUDIO CODEC SUPPORTED

EFR	No
HR	No
AMR	No
AMR-WB	No
EVS	No

# CONNECTIVITY

NFC	No
Wi-Fi	No
Bluetooth	No
DLNA	No



# EXTRA FEATURE

External Memory	No
3G VOICE	No
4G Voice (VoLTE and E000 Call)	No
VoWiFi	No
Telstra Messaging (RCS)	No
4G Video calling (ViLTE)	No
SMS-MT	Yes


SMS-MO	Yes
MMS	No
GPS	Yes
AGPS	No
PAP	Yes
CHAP	Yes
USIM-OTAC	Yes
Single Stack IPv6	Yes
Dual Stack IPv4v6	Yes
Single Stack IPv6 Tethering/Wi-Fi hotspot	No
Dual Stack IPv4V6 Tethering/Wi-Fi hotspot	No
Roaming PDN/PDP Type Option	No
Device OTAC	No
USIM Variant	Integrating product dependent
SIM Toolkit	Yes
BIP	Yes
FOTA	Yes (Remote upgrade possible via proprietary procedure)
Simultaneous PDP	No
Multiple RAB Support	No

# REPORTS AND DOCUMENTS

## Vendor provided documents

SAR	Not Applicable
SDoC	The Vendor has provided the SDoC report (Report attached below). Note that the vendor is responsible for the content of this report (and not Telstra)  [Suppliers Declaration of Conformity_SARA-R410M-02B.pdf]
Hardware declaration document	 additional_documentation.xlsx  [additional_documentation.xlsx]
GCF/ PTCRB	GCF-CC 3.75.0
Additional Device Specification	 nRF91_DK_User_Guide_v0.7.2.pdf  [nRF91_DK_User_Guide_v0.7.2.pdf]
Vendor Customisation File	Not Provided

## TELSTRA documents

Pre-configuration Document	MSR0295_v63
Customisation Document	Not applicable
Issues Register	 Nordic Semiconductor_nRF  [Nordic Semiconductor_nRF9160-SICA_issues.xlsx]

# ENDORSEMENT AND SIGN OFF

## Domain Engineering

Domain Engineering Chapter	Nesa Packianathan for ----- Crispin Blackall	Chapter Lead – Testing & Device Accreditation ----- Chapter Area Lead – Domain Engineering
----------------------------	--	--

## CONDITIONS OF APPROVAL

- Approval is provided based on the hardware and software variants submitted to, tested by and technically approved by Telstra.
- Any changes to hardware and software are to be formally submitted to Telstra in writing prior to implementation so Telstra can evaluate and/or validate the impact of the change/s
- Approval is given on basis that future software upgrades will have updated SVN values.
- Data devices Approval status will be reassessed two (2) years after initial Telstra Technical Approval.
  - Re-assessment Date: 18 May 2022

**Nordic** to address the following issue in the Next **Maintenance Release**.  
All issues have an acceptance from Telstra Retail/ Products.

Condition No	Issue No	Issue description	End Customer / Network Impact
1	24200	Multiple instances of radio link failures observed intermittently, nearly 4 out of 10 days of testing, while performing static stability.  MSI13170	Network Impact: Network KPI will be affected with large number of RRC connection Re-establishment requests  Customer Impact: None
	NA	Outstanding class 3 issues in issues register should be addressed in future releases or products	NA

----- END -----