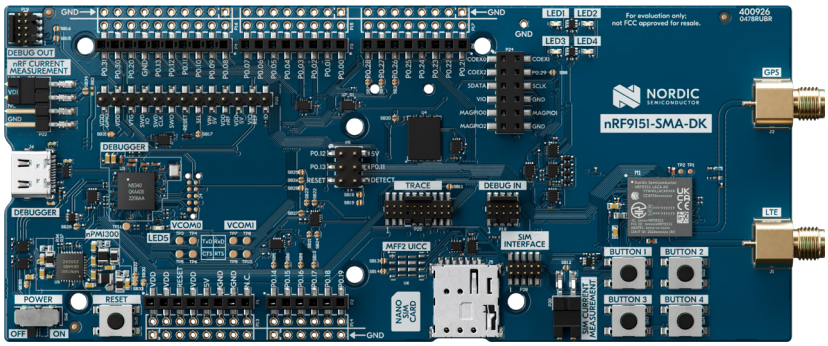
nRF9151 SMA DK

Development Kit for LTE-M/NB-IoT/NB-NTN/GNSS/DECT NR+.



The nRF9151 SMA DK is a specialized version of our development kit, designed for RF engineers and power users who require maximum performance and flexibility for RF evaluation and field testing. It replaces the internal antennas with SMA connectors, allowing you to directly connect high-performance external antennas or lab equipment of your choice for precise characterization and field testing. This makes it the recommended platform for developing and evaluating cutting-edge applications using cellular IoT (LTE-M/NB-IoT), NR+, or Non-Terrestrial Networks (NTN).

The kit includes everything needed to get started immediately, with high-performance Taoglas (LTE/NTN/NR+) and Kyocera (GNSS) antennas provided.

All GPIOs and interfaces are available via connectors. The kit is Arduino Uno Rev3 compatible, meaning it can easily interface with external device shields. User-programmable LEDs and buttons (4 each) are available for output and input.

The nRF9151 SMA DK has both a nano/4FF SIM card slot and an MFF2 SIM footprint, to support plug-in and soldered (e)SIMs. The kit is shipped with IoT SIM cards preloaded with free trial data for instant terrestrial and satellite connectivity. It also supports the use of software-integrated SIM solutions.

Programming and debugging are enabled through the on-board SEGGER J-Link, which also supports programming and debugging external targets.

The nRF9151 SMA DK is supported by a full suite of development software, tools and resources, including the Nordic Developer Academy's Cellular IoT Fundamentals course.

The nRF9151 SMA DK comes pre-flashed with our Serial LTE Modem application for interfacing through AT Commands. Getting started with other firmware samples is available in the Quick Start tool, found in nRF Connect for Desktop.

Key features

- SMA connectors for external antennas and direct connection to lab equipment.
- The ideal platform for DECT NR+, Non-Terrestrial Network (NTN), and cellular IoT development/evaluation.
- Includes high-performance Taoglas (LTE/NTN/NR+) and Kyocera (GNSS) antennas.
- Bundled with IoT SIM cards with trial data for immediate terrestrial and satellite connectivity.
- SEGGER J-Link OB programmer/debugger.
- Pins for measuring power consumption, e.g., with Nordic's Power Profiler Kit II.
- User-programmable LEDs & buttons.
- 3.0-5.5 V supply from external or 5 V supply from USB.

nRF9151 SiP

- Fully integrated SiP with 64 MHz Arm Cortex-M33 and multimode LTE-M/NB-IoT/NB-NTN modem with NR+ support and GNSS.
- 700-2200 MHz LTE band support.
- Power Class 5 20 dBm.
- Power Class 3 23 dBm.
- 1.9GHz and 915Mhz NR+ band support.
- Certified for global operation.
- Dedicated programmable application processor and memory.
- 1 MB flash + 256 KB RAM.
- Arm TrustZone + Arm CryptoCell 310.

Applications

- Asset Tracking
- Smart Metering
- Smart City
- Smart Agriculture
- Predictive maintenance
- Portable Medical Devices
- Industry 4.0

For more information please visit: **https://www.nordicsemi.com/9151smadk**