exelonix

NB|USB Connect

The number of devices connected to the internet via cellular connectivity is continuously growing. To ensure a seamless, power efficient and secure data exchange the 3rd Generation Partnership Project (3GPP) has released the NB1 (NB-IoT) and Cat M1. Both access technology provides the basis for better cell coverage and revolutionary low power communication solutions for health care, smart home, traffic, logistic systems or industrial applications. NB|USB Connect offers connectivity via NB1 or M1 as a standard USB-form factor.

Benefits of applications based on NB|USB Connect :

A cellular modem purpose-built for IoT development with single board computer compatibility.
Connect your device worldwide via a standardized cellular wireless networks.
Spend less time on connectivity management and more time on your core product.
With supported hardware compatibility and open source drivers, the NB|USB Connect is adaptable to your development stack.

NB|USB Connect Features:

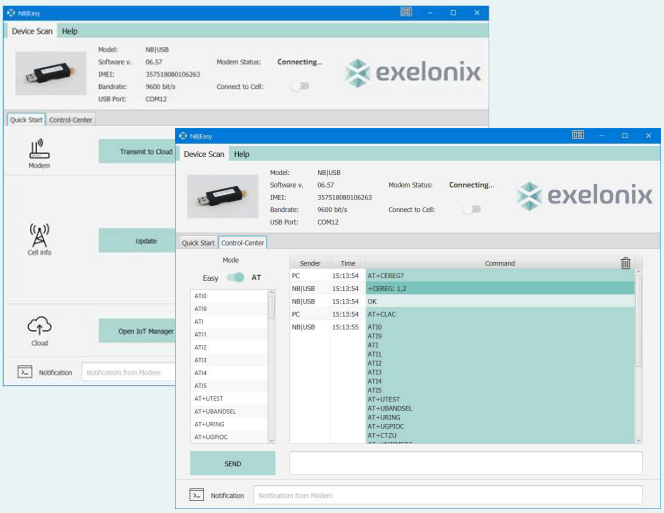
- LTE Categories NB1 and M1 Modem
- Internal antenna
- Additional antenna connector
- Small USB-form factor
- Operating systems :
  - Linux 2.6 and above
  - Windows 10
- NB|Easy Software
- AT-Command interface

Modem :

- Ublox SARA R410M (Qualcomm MDM9206 chip set) NB1/M1 module

NB-IoT LTE-M

NB|USB Connect



Tooling

Start-up GUI Windows Application

- Display UE-statistics
- Network information
- Check connectivity
- Send data to any IoT cloud

Advanced

- AT-Commands
- Get modem traces via separate COM Port

Features:

3GPP Release 13 LTE Cat NB1
3GPP Release 13 LTE Cat M1
Coverage Enhancement Mode A

FDD Bands:

NB|USB 410M
SARA-R410M-02B
Cat M1, Cat NB1 deployed bands:
1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, and band 39 in M1-only

Chipset

Qualcomm MDM9206

Antenna

Interal multiband antenna and TS9 external antenna connector

SIM

Micro-SIM (3FF)
Vodafone Global SIM-Chip (optional)

Network

Paging
Idle and Connected DRX
Deep sleep mode
Power saving mode

Protocols

Dual stack IPv4 and IPv6
Embedded TCP/IP, UDP/IP

Interface

1 USB 2.0 (high-speed, 480 Mbit/s)

OS-Support

Win 7/8/8.1/10
MAC OS X 10.9~10.12
Linux Kernel 2.6.21 thru 4.11
Android: 4.0 thru 7.1

Firmware upgrade

Via UART and Over the Air (FOTA)

Electrical data

Power supply via USB (5V)
Power consumption max. 500mA

Environmental data, quality & reliability

Operating

Humidity 5% to 95%
Operating temperature: -20°C to 65°C
Storage temperature: -40°C - +85°C
RoHS compliant (lead-free)

Modem certifications and approvals

CE (RED), FCC, RCM, AT&T, Telstra, T-Mobile, Verizon

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