NimbeLink Nano Development Kit

A key emerging requirement for sensors and devices in IoT, particularly those that will run on batteries, is low-power operation. In the same way that the NimbeLink Nano LTE-M CAT-M1/NB-IoT cellular modem is specifically designed to minimize power requirements, the Nano development kit is also engineered to help minimize the power requirement of the finished prototype. This makes the Nano development kit ideal for proof-of-concept and field-testable prototyping of low-power LTE-M IoT devices.

The development kit includes a NimbeLink Nano 4G LTE CAT-M1/NB-IoT Embedded Modem based on the Nordic NRF9160 SIP. Also included is an adapter board that allows customers to connect to a PC via USB or to virtually any application processor development kit via serial UART connection.

FEATURES

- Powered over USB cable
- SMA connectors for LTE and GPS interfaces
- Provides USB to dual UART interface to communicate with modem
- Micro SIM card connector (3FF size)
- User controllable Tri-color LED, Button & 3-Axis Accelerometer

ADVANTAGES

- Get into production faster with published, editable design files
- Grove System connectors for developing quick proof of concepts
- Onboard SEGGER J-Link debugger for SWD and UART communications

PART NUMBER

	DESCRIPTION
NL-SWNDK	NimbeLink development kit

TECHNICAL SPECIFICATIONS

TARGET REGION

Global	
Compatible Carriers	AT&T, Orange, Telstra, Verizon, Vodafone, and more

CELLULAR TECHNOLOGY

LTE Category	LTE-M (CAT M1), NB-IoT (NB1, NB2)
LTE Frequency Bands	LTE-FDD: B1[2100], B2[1900] B3[1800], B4[1700], B5[850], B8[900], B12[700], B13[700], B14[700], B17[700], B18[850], B19[850], B20[800], B25[1900], B26[850], B28[700], B66[1700]
3G Technology Supported	N/A
3G Frequency Band	N/A
2G Technology Supported	N/A
2G Frequency Band	N/A

DATA SPEEDS

Download Rate and Upload Rate	Download Max: LTE-M: 375 Kbps | NB-IoT: 60 Kbps Upload Max: LTE-M: 300 Kbps | NB-IoT: 30 Kbps

HARDWARE

Form Factor	NimbeLink Nano Interface
Dimensions	97.5mm x 39.5mm x 12mm
Weight	26 grams

INTERNET PROTOCOLS

Network Stack Support	NimbeLink provided AT command parser supporting: TCP/IP, UDP/IP, IPv4/IPv6, PING, Roadmap for TLS 1.2 and MQTT
SMS	SMS supported

LOCATION

GNSS	GPS

POWER

Supply Voltage	5V over USB
I/O Voltage	1.7V - 3.6V

Current Consumption	Average TBD	Peak TBD	Idle TBD	Sleep TBD

INTERFACES

Type	Micro USB, Grove System Connectors x 2
USB Driver Support	
RF	U.FL to SMA x 2

SIM

Type	Micro SIM (3FF) connector and Verizon MFF2

APPROVALS

Regulatory Certifications	FCC, IC, PTCRB
Carrier Approvals	Verizon
Compliance	RoHS compliant

TEMPERATURE RANGE

Industrial Grade	-40°C to +85°C

SUPPORT AND WARRANTY

1 Year standard warranty