NimbeLink Nano 4G LTE-M

Airgain, a global leader in embedded cellular modem technology and asset tracking solutions, has introduced the NimbeLink Nano NL-SWN-LTE-NRF9160 modem. This new modem offers LTE-M (CAT M1) connectivity for global applications. The modem also includes an integrated GPS/GNSS receiver.

The NL-SWN-LTE-NRF9160-C is optimized for Verizon. Contact Airgain for versions of the NL-SWN-LTE-NRF9160 that support other global networks.

NimbeLink cellular modems are designed to make cellular integration fast and easy. Exceptionally small, lowest power, and end-device certified, NimbeLink modems enable developers to quickly and reliably connect IoT products to cellular networks around the world. NimbeLink modems are backed by industry leading documentation and expert-level product support.

FEATURES

- No carrier certification required
- Smallest embedded modem form factor
- User accessible applications processor
- Flexible antenna options
- UART, SPI, I2C serial interfaces
- Verizon soldered down SIM
- Support for external SIM sockets
- Supports Power Save Mode and eDRX
- RoHS compliant

ADVANTAGES

- Global LTE coverage LTE-M (CAT M1)
- Simple Firmware over-the-air update system
- Easy GSMA back-off solution
- AT command interface for UDP and TCP/IP socket dials
- GNSS support

PART NUMBER

	DESCRIPTION
NL-SWN-LTE-NRF9160	NimbeLink Nano, LTE-M with GNSS

TECHNICAL SPECIFICATIONS

TARGET REGION

Global	
Compatible Carriers	Verizon Only

CELLULAR TECHNOLOGY

LTE Category	LTE-M, (CAT M1)
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 Upload Max: LTE-M: 300 Kbps

HARDWARE

Form Factor	NimbeLink Nano Interface
Dimensions	23mm x 16.5mm x 4mm
Weight	4 grams

INTERNET PROTOCOLS

Network Stack Support	Airgain 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

Supply Voltage	3.3V to 5.5V (3.8V nominal)
I/O Voltage	1.7V - 3.6V

Current Consumption	VCC = 5V: Average 20.1 mA | Peak 68.3 mA | Idle 533 uA | Sleep 2.4 uA | PSM 5uA | eDRX 19uA VCC = 3.8V: Average 23.9 mA | Peak 95.1 mA | Idle 611 uA | Sleep 2.883 uA

INTERFACES

Type	Multiple UART, SPI, I2C, GPIO
USB Driver Support	N/A
RF	Primary, SISO DL (U.FL)

SIM

Type	Integrated Verizon SIM, support for external SIM sockets

APPROVALS

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

TEMPERATURE RANGE

Industrial Grade	-40°C to +85°C

SUPPORT AND WARRANTY

1 Year standard warranty	