

# Verizon SIM Card Datasheet

NimbeLink Corp Updated: February 2021



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# 1. Introduction

This document serves as the datasheet for NimbeLink Verizon SIM cards.

# 1.1 Orderable Part Numbers

Orderable Device	Operating Temp	Description	Network
NL-SIM-VER-TRI	-40°C to +85°C	Mini/Micro/Nano (2FF/3FF/4FF), Commercial Temp Sim Card	Verizon
NL-SIM-COM	-40C to +85°C	Micro-Sim, 3FF size, Commercial Temp Sim Card	Verizon
NL-SIM-IND	-40°C to +105°C	Micro-Sim, 3FF size, Industrial Temp Sim Card	Verizon

## **1.2 Additional Resources**

The following documents or documentation resources are referenced within this document.

• ETSI TS 102 221 Technical Specification

## **1.3 Product Images**

Below are product images for the SIM cards documented in this datasheet. The SIM's branding may change over time.

NL-SIM-VER-TRI



NL-SIM-IND



#### NL-SIM-COM



## **1.4 Product Overview**

4G LTE connected devices require a SIM card in order to connect to the network. The NL-SIM-COM and the NL-SIM-IND from NimbeLink are Verizon approved SIM cards.

### **1.5 Compatible Products**

The NL-SIM-COM, NL-SIM-IND and NL-SIM-VER-TRI from NimbeLink are compatible with all devices designed to work on the Verizon network, including non-NimbeLink modems. These SIMs are meant for use with LTE CAT1 or greater devices.

## 1.6 Mechanical Diagram



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# 2. Technical Specifications

# 2.1 Electrical Specifications

#### 2.1.1 Absolute Maximum Ratings

Parameter	Signal	Maximum Rating
Main Power Supply	VCC	5.5V
I/O Voltage Reference	VREF	5.5V

#### 2.1.2 Recommended Ratings for Contacts C1-C7

Name	Direction	Description	Contact	Min	Мах	
VCC	Input	Supply voltage	C1	1.8V	5.5V	
RST Input		Reset (RST), VIH	C2	VCC - 0.7V	VCC	
RST Input	Reset (RST), VIL	C2	0V	0.6V		
CLK	CLK Input	Clock (CLK), VIH	C3	0.7V x VCC	VCC	
CLK Input	Clock (CLK), VIL	C3	0V	0.5V		
10 1/0	Input for logic high	C7	0.7V x VCC	VCC + 0.3V		
	I/O	Input for logic low	C7	-0.3V	0.15V x VCC	
		Output for logic high	C7	3.8V	VCC	
		Output for logic low	C7	0V	0.4V	

# 2.2 Other Specifications

Orderable Device	Parameter	Typical	Min Temp	Max Temp	Unit
	Dimensions	15 x 12 x 0.76			mm
	Weight	> 0.20			Grams
NL-SIM-COM	Operating Temperature		-35	+85	°C
NL-SIM-COM	Storage Temperature		-35	+85	°C
NL-SIM-IND	Operating Temperature		-40	+105	°C
NL-SIM-IND	Storage Temperature		-40	+105	°C
NL-SIM-VER-TRI	Operating Temperature		-35	+85	°C
NL-SIM-VER-TRI	Storage Temperature		-35	+85	°C

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# 3. Compliance Requirements

## 3.1 UICC Standards

The UICC is compliant to ETSI TS 102 2211 Rel 8 and 3GPP 31.101 Rel 8 Except the following:

- No environmental condition TLV response to select
- 4 logical channel only supported
- No Inter-Chip USB
- No Terminal capability
- No secure channel

### 3.2 USIM Standards

The USIM is compliant to 3GPP 31.102 Rel 8.

Except the following commands:

- Key Establishment mechanism
- OMA BCAST
- MBMS security
- Authentication of GBA
- Addition of I-WLAN related files and procedures
- HPLMN Direct Access Indicator for I-WLAN
- I-WLAN Steering of Roaming Refresh Command
- Geographical Location
- Introduction of AES and automatic detection of application data format
- Introduction of AES and deprecation of DES
- USSD

### 3.3 ISIM Standards

The ISIM is compliant to 3GPP 31.103 R8.0.1

Except for the following commands:

- Key establishment mechanism
- Authentication of GBA

## 3.4 CSIM Standards

The CSIM is compliant to 3GPP2 specifications as specified in C.S0065-A v1.0 OTAF command support only the following commands:

- OTAPA request
- Commit and Validate
- Generic Configuration

- Configuration Request and Response Management
- SSPR Download Request and Response Message
- Generic Download Request
  - Download Request and Response Message
  - SSPR Download Request and Response Message
- OTAPA request
- Commit
- Generic Configuration
  - SSPR Configuration Request
- Generic Download Request
  - SSPR Download Request
- BCMCS-related commands are not supported
- AKA-related commands are not supported
- LCS-related commands are not supported
- IP-based Location Service Procedures are not supported

### 3.5 RoHS Compliance

This product complies with the requirements of 2012/19/EC of the European Parliament by satisfying the stipulated limits on restricted substances.

# 4. Regulatory Information

## 4.1 Export Control Classification Number (ECCN)

ECCNs are five character alphanumeric designations used on the Commerce ControlList (CCL) to identify dual-use items for export control purposes. An ECCN categorizes items based on the nature of the product, i.e. type of commodity, software,or technology and its respective technical parameters.

#### NL-SIM-IND, NL-SIM-COM, NL-SIM-VER-TRI ECCN: 5A992.c

# 5. Version Information

Revision	Notes	Date
1	- Initial Release	2016/07/01
2	- Added ECCN information	2021/02/01
3	- Added NL-SIM-VER-TRI	2021/02/02