

Verizon SIM Card Datasheet

NimbeLink Corp

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Table of Contents

Table of Contents	2
Introduction	3
Orderable Part Numbers	3
Additional Resources	3
Product Images	3
NL-SIM-VER-TRI	3
NL-SIM-IND	3
NL-SIM-COM	3
Product Overview	4
Compatible Products	4
Mechanical Diagram	4
Technical Specifications	5
Electrical Specifications	5
Absolute Maximum Ratings	5
Recommended Ratings for Contacts C1-C7	5
Other Specifications	5
Compliance Requirements	6
UICC Standards	6
USIM Standards	6
ISIM Standards	6
CSIM Standards	6
RoHS Compliance	7
Regulatory Information	7
Version Information	8

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	-40°C 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.

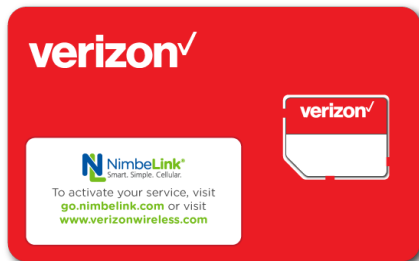
NL-SIM-VER-TRI



NL-SIM-IND



NL-SIM-COM



1.4 Product Overview

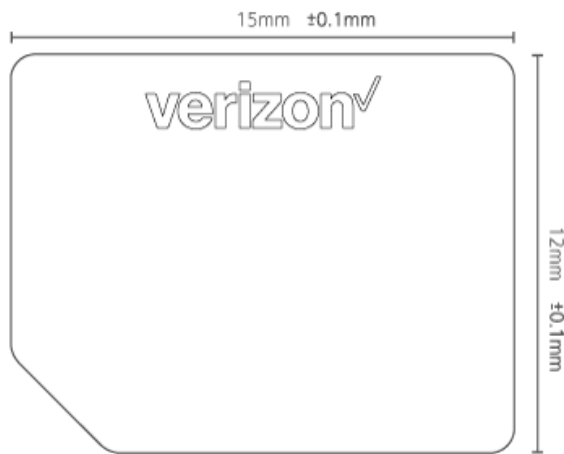
4G LTE connected devices require a SIM card in order to connect to the network. The NL-SIM-COM and the NL-SIM-IND from NimbeLink are Verizon approved SIM cards.

1.5 Compatible Products

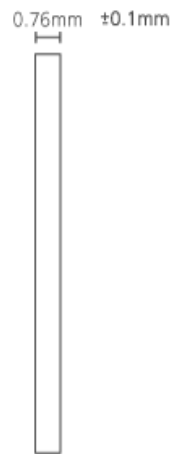
The NL-SIM-COM, NL-SIM-IND and NL-SIM-VER-TRI from NimbeLink are compatible with all devices designed to work on the Verizon network, including non-NimbeLink modems. These SIMs are meant for use with LTE CAT1 or greater devices.

1.6 Mechanical Diagram

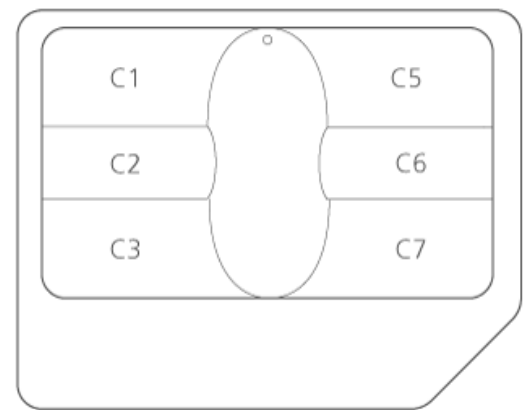
*Front of Verizon SIM card



*Side View



*Back of Verizon SIM card



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	Max
VCC	Input	Supply voltage	C1	1.8V	5.5V
RST	Input	Reset (RST), VIH	C2	VCC - 0.7V	VCC
		Reset (RST), VIL	C2	0V	0.6V
CLK	Input	Clock (CLK), VIH	C3	0.7V x VCC	VCC
		Clock (CLK), VIL	C3	0V	0.5V
IO	I/O	Input for logic high	C7	0.7V x VCC	VCC + 0.3V
		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

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