

Verizon SIM Card Datasheet

NimbeLink Corp

Updated: January 2018



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Table of Contents

Table of Contents	2
Introduction	3
Orderable Part Numbers	3
Additional Resources	3
Product Overview	3
Compatible Products	3
NimbeLink Compatible Products	3
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

1. Introduction

1.1 Orderable Part Numbers

Orderable Device	Operating Temperature	Description	Network Type
NL-SIM-COM	-35°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](#)
- Verizon UICC Product Sheet

1.3 Product Overview

A 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.

1.4 Compatible Products

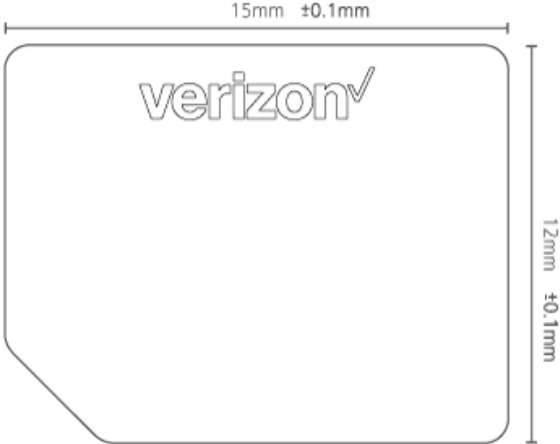
The NL-SIM-COM and the NL-SIM-IND from NimbeLink are compatible with all devices designed to work on the Verizon network, including non-NimbeLink modems.

1.4.1 NimbeLink Compatible Products

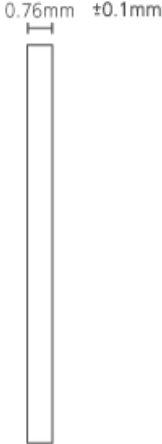
Orderable Device	Description
NL-SW-LTE-TSVG-B	Skywire® 4G LTE CAT3 w/ GNSS
NL-SW-LTE-GELS3-C	Skywire® 4G LTE CAT1
NL-SW-LTE-S7588-V	Skywire® 4G LTE CAT4

1.5 Mechanical Diagram

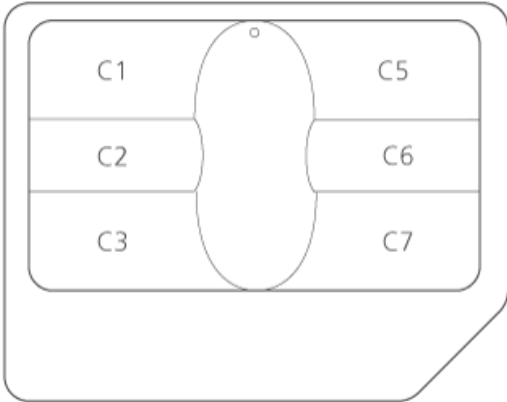
*Front of Verizon SIM card



*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	4.5V	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

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.