

# Skywire<sup>®</sup> Development Kit SMS Example

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# 1. Introduction

## 1.1 Orderable Part Numbers

Orderable Device	Description	Carrier	Network Type
NL-SWDK	Skywire Development Kit	Any	Any
NL-SW-1xRTT-A	2G 1xRTT	Aeris	CDMA
NL-SW-1xRTT-S	2G 1xRTT	Sprint	CDMA
NL-SW-1xRTT-V	2G 1xRTT	Verizon	CDMA
NL-SW-GPRS	2G GPRS	Any GSM (AT&T, T-Mobile, etc.)	GSM
NL-SW-EVDO-A	3G EVDO, GPS, GLONASS	Aeris	CDMA
NL-SW-EVDO-V	3G EVDO, GPS, GLONASS	Verizon	CDMA
NL-SW-HSPA	3G HSPA+, GPS, GLONASS	Any GSM (AT&T, T-Mobile, etc.)	GSM
NL-SW-HSPA-B	3G HSPA+, GPS, GLONASS	Any GSM (AT&T, T-Mobile, etc.)	GSM
NL-SW-LTE-TSVG	4G LTE CAT 3 without Fallback, GPS, GLONASS	Verizon	LTE
NL-SW-LTE-TSVG-B	4G LTE CAT 3 without Fallback, GPS, GLONASS	Verizon	LTE
NL-SW-LTE-TNAG	4G LTE CAT 3 with HSPA+ Fallback, GPS, GLONASS	Any GSM (AT&T, T-Mobile, etc.)	LTE, GSM
NL-SW-LTE-TNAG-B	4G LTE CAT 3 with HSPA+ Fallback, GPS, GLONASS	Any GSM (AT&T, T-Mobile, etc.)	LTE, GSM
NL-SW-LTE-TEUG	4G LTE CAT 3 with HSPA+ Fallback, GPS, GLONASS, EU	Any EU GSM	LTE, GSM
NL-SW-LTE-S7618RD	4G LTE CAT1	Verizon	LTE
NL-SW-LTE-S7648	4G LTE CAT1	AT&T/T-Mobile	LTE
NL-SW-LTE-S7588-V	4G LTE CAT4 with HSPA+ Fallback	Verizon	LTE
NL-SW-LTE-S7588-V-B	4G LTE CAT4 with HSPA+ Fallback	Verizon	LTE
NL-SW-UAV-S7588	4G LTE CAT4 with HSPA+ Fallback	Verizon	LTE
NL-SW-LTE-S7588-T	4G LTE CAT4 with HSPA+ Fallback	AT&T	LTE, GSM
NL-SW-LTE-S7588-T-C	4G LTE CAT4 with HSPA+ Fallback	AT&T	LTE, GSM
NL-SW-LTE-WM14	CAT1 LTE, GSM	Any GSM (AT&T, T-Mobile, etc.)	GSM
NL-SW-LTE-SVZM20	LTE CAT M1	Verizon	LTE
NL-SW-LTE-TM1G	LTE CAT M1 with GNSS	Verizon/AT&T	LTE
NL-SIM-COM	3FF Commercial Temp Range SIM Card	Verizon	LTE

## 1.2 Prerequisites



**This document assumes you have completed the initial setup of your modem and development kit. If you have not completed those steps, refer to the Skywire® Development Kit User Manual and complete the modem setup before proceeding.**

## 1.3 LTE M1 SMS on Verizon

The Verizon LTE M1 network currently only support SMS between LTE M1 devices. Sending SMS messages to non M1 devices is expected to be supported in 2019.

## 2. SMS Message

### 2.1 Send SMS Message

**Note:** If you are using the NL-SW-LTE-WM14 over the UART port, you will not see the characters on the screen until you hit the enter key.

In the terminal program, type the letters:

**AT+CMGF=1**

followed by the Enter key, and the terminal should respond with:

**OK**

Substitute the destination phone number for the example 5554443333.

Then type:

**AT+CMGS="15554443333"**

followed by the Enter key, and the terminal should respond with:

**>**

At this point you can type a custom message (keep to less than 160 characters).

To send the message, press the **CTRL** and **Z** keys at the same time.

If successful, the terminal should respond with:

**+CMGS: xx**

### 2.2 Receive SMS Messages

In the terminal program, type the letters:

**AT+CMGF=1**

followed by the Enter key, and the terminal should respond with:

**OK**

Then type:

**AT+CMGL="REC UNREAD"**

followed by the Enter key,

If the terminal responds with

**OK**

then there are no messages.

Otherwise, the terminal responds with the first message in the form:

**+CMGL=index, message\_status, address, [address\_text], [time\_stamp]  
[address\_type, body\_length] <CR> <LF> sms\_message\_body[<CR> <LF> +CMGL:  
...]**

This is an example:

**+CMGL: 0,"REC UNREAD","5554443333","",20130925202238  
SMS message**

## 2.3 Delete Received SMS Messages

To delete all received SMS messages, type the following letters in the terminal program:

**AT+CMGD=1,4**

followed by the Enter key, and the terminal should respond with:

**OK**

To delete a specific SMS message, type the following letters in the terminal program:

**AT+CMGD=x**

where **x** is the index of the SMS message you would like to delete, and hit the Enter key. For instance, to delete the SMS message located at index position 2, type:

**AT+CMGD=2**

followed by the Enter key, and the terminal should respond with:

**OK**

## 3. Troubleshooting

- When sending a text message from the Skywire® modem, if you get a successful send message but never receive the SMS message, try adding a plus sign (+) before the phone number when you get to the AT+CMGS command in Section 2.1:

**AT+CMGS="+15554443333"**

- **(NL-SW-LTE-TSVG only)** If you get an error after you press "CTRL-Z" in Section 2.1, issue:

**AT+CSMP?**

If it returns something other than "17" in the first parameter, issue:

**AT+CSMP="17",4098,0,2**

and try to send the text message again.

- **(NL-SW-LTE-S7588-x only)** If you are not able to receive SMS messages, issue:

**AT+CPMS="ME","ME","ME"**

and try again. This changes the SMS storage from the SIM card to the Skywire.

- **(NL-SW-LTE-TSVG-x only)** If you are not able to receive SMS messages, issue:

**AT+CPMS="ME","ME"**

and try again. This changes the SMS storage from the SIM card to the Skywire.