Skywire® Development Kit SMS Example

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Updated: March 2024

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1. Introduction

1.1 Orderable Part Numbers

Orderable Device	Description	Carrier	Network Type
NL-SWDK2	Skywire Development Kit	Any	Any
NL-SW-LTE-QBG96	LTE CAT M1	Verizon/AT&T	LTE-M, NB-IoT
NL-SW-LTE-SRC7611-4	LTE CAT4	Verizon/AT&T	LTE
NL-SW-LTE-SRC7611-4NG-B	LTE CAT4	Verizon/AT&T	LTE
NL-SW-LTE-TC4NAG	LTE CAT4	Verizon/AT&T	LTE
NL-SW-LTE-TC4EU	LTE CAT 4 EU	European Carriers	LTE
NL-SW-LTE-TC1WWG	LTE CAT 1	Verizon/AT&T, European Carriers	LTE
NL-SW-LTE-TC4WWG	LTE CAT 4	Verizon/AT&T, European Carriers	LTE
NL-SW-LTE-TG1WWG	LTE CAT M1	Verizon/AT&T	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

The Verizon LTE M1 network now supports SMS between LTE M1 devices and non LTE M1 devices.

The AT&T LTE network allows for SMS between IOT devices on the network but does not allow for SMS between IOT and non IOT devices. Sending SMS messages to non IOT devices on AT&T can be managed through AT&T's IOT portal. Nimbelink's go.nimbelink.com AT&T data plans do not support SMS by default.

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","555444333","",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.

4. Document Version Information

Revision	Description	Date
15	- Revision Control Updated - Updated Formatting - Removed Unsupported Modems - Updated Supported Modems	10//21/2022
16	- Added NL-SW-LTE-SRC7611-4NG-B PN	03/08/2024

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