



# SKYWIRE CAT1 BIS SMS QUICK START GUIDE

Application Note



Airgain, Inc provides this documentation in support of its products for the internal use of its current and prospective customers. The publication of this document does not create any other right or license in any party to use and content in or referred to in this document and any modification or redistribution of this document is not permitted.

While efforts are made to ensure accuracy, typographical and other errors may exist in this document. Airgain, Inc reserves the right to modify or discontinue its products and to modify this and any other product documentation at any time.

All Airgain, Inc products are sold subject to its published Terms and Conditions, subject to any separate terms agreed with its customers. No warranty of any type is extended by publication of this documentation, including, but not limited to, implied warranties or merchantability, fitness for a particular purpose and non-infringement.

*Copyright ©2025 All Rights Reserved. Registered Trademarks™ Airgain, Inc. Airgain, AirgainConnect, NimbeLink, and their associated logos are trademarks or registered trademarks of Airgain, Inc.*



# Table of Contents

- 1 INTRODUCTION ..... 1**
  - 1.1 SCOPE..... 1
  - 1.2 PREREQUISITES ..... 1
  - 1.3 ORDERABLE PART NUMBERS ..... 1
- 2 SMS MESSAGE COMMANDS ..... 1**
  - 2.1 SEND AN SMS MESSAGE ..... 2
  - 2.2 RECEIVE AN SMS MESSAGE ..... 2
  - 2.3 DELETE RECEIVED SMS MESSAGES..... 3
  - 2.4 EXAMPLE SMS AT COMMAND LOG ..... 4
- 3 TROUBLESHOOTING ..... 4**
- 4 DOCUMENT VERSION INFORMATION ..... 5**



## 1 Introduction

### 1.1 Scope

This document serves as a guide for implementing SMS functionality on Skywire modems.

### 1.2 Prerequisites

This document assumes that the initial setup of the requisite modem and development kit has been completed using the NL-SWDK2 User Manual. If these steps are incomplete, please refer to the link above and complete the modem setup before proceeding.

### 1.3 Orderable Part Numbers

Orderable Device	Description	Carrier	Network Type
NL-SWDK2	Skywire Development Kit 2	Any	Any
NL-SW-LTE-TC1bisNAG	LTE (Cat 1 bis)	Any	LTE
NL-SW-LTE-QC1bisWWG	LTE (Cat 1 bis)	Any	LTE

#### Note

LTE Verizon users can send and receive SMS messages to and from personal cell phones and other CAT 1 devices. AT&T users do not have the ability to send SMS messages at this time. AT&T CAT 1 SIMs utilize a network that is dedicated exclusively to IoT devices, and are not associated with a phone number, which is required to send SMS messages. However, SMS messages can be sent using AT&T's RESTful API. Refer to the following link: <https://developer.att.com/sms/>

## 2 SMS Message Commands

The following subsections provide commands for common operations:

- Send an SMS Message
- Receive an SMS Message
- Delete Received SMS Messages
- Example SMS AT Command Log



## 2.1 Send an SMS Message

To send an SMS message: In a terminal, enter the following command and press Enter:

```
AT+CMGF=1
```

The terminal should respond with:

```
OK
```

To send a message, enter the following command, substituting "15554443333" with the desired phone number and press Enter:

```
AT+CMGS="15554443333"
```

The terminal should respond with a prompt:

```
>
```

After the prompt appears, enter up to 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 an SMS Message

In the terminal, enter the following letters and press enter:

```
AT+CMGF=1
```

The terminal should respond with:

```
OK
```

Then enter the following command and press Enter:

```
AT+CMGL="REC UNREAD"
```

If the terminal responds with OK then there are no messages. Otherwise, the terminal responds with a message in the following form:

```
+CMGL=index, message_status, address, [address_text], [time_stamp]  
[,address_type, body_length] <CR> <LF> sms_message_body[<CR> <LF> +CMGL: ...]
```

For example:

```
+CMGL: 2,"REC UNREAD","+15554443333",,"19/06/18,15:58:35-28"  
<SMS message contents>
```

## 2.3 Delete Received SMS Messages

To delete all received SMS messages, enter the following letters in a terminal and press Enter:

```
AT+CMGD=1,4
```

The terminal should respond with:

```
OK
```

To delete a specific SMS message, enter the following letters in a terminal and press Enter:

```
AT+CMGD=x
```

where “x” is the index of the SMS message you would like to delete. For example, to delete the SMS message located at index position two, enter the following command and press Enter:

```
AT+CMGD=2
```

The terminal should respond with:

```
OK
```



## 2.4 Example SMS AT Command Log

The following is a log from a modem configuring SMS and communicating. Comments for each step start with "//".

```
AT+CMGF=1
OK

// Send SMS Message
AT+CMGS="15554443333"
> Hello World!

+CMGS: 0

// Read SMS Messages
AT+CMGL="REC UNREAD"
>+CMGL: 1,"REC UNREAD","+15554443333",,"8/14/20,12:58:35-28" Hello World!

// Delete SMS Message
AT+CMGD=1,4
OK
```

## 3 Troubleshooting

### I successfully sent a message but have not received it

If the output indicates that you've successfully sent a text message from the Skywire modem but you never receive the SMS message, try adding a plus sign (+) before the phone number when you get to the AT+CMGS command in *Send an SMS Message*:

```
AT+CMGS="+15554443333"
```

### I'm not able to receive SMS messages

If you are not able to receive SMS messages, enter the following command and press Enter:

```
AT+CPMS="SM", "SM", "SM"
```

This changes the SMS storage from the Skywire to the SIM Card.



## 4 Document Version Information

Revision	Description	Date
1	Initial Release	2025-05-13
2	Added NL-SW-LTE-TC1bisNAG	2025-10-16