GENERAL NOTES

SIMCOM OFFERS THIS INFORMATION AS A SERVICE TO ITS CUSTOMERS, TO SUPPORT APPLICATION AND ENGINEERING EFFORTS THAT USE THE PRODUCTS DESIGNED BY SIMCOM. THE INFORMATION PROVIDED IS BASED UPON REQUIREMENTS SPECIFICALLY PROVIDED TO SIMCOM BY THE CUSTOMERS. SIMCOM HAS NOT UNDERTAKEN ANY INDEPENDENT SEARCH FOR ADDITIONAL RELEVANT INFORMATION, INCLUDING ANY INFORMATION THAT MAY BE IN THE CUSTOMER’S POSSESSION. FURTHERMORE, SYSTEM VALIDATION OF THIS PRODUCT DESIGNED BY SIMCOM WITHIN A LARGER ELECTRONIC SYSTEM REMAINS THE RESPONSIBILITY OF THE CUSTOMER OR THE CUSTOMER’S SYSTEM INTEGRATOR. ALL SPECIFICATIONS SUPPLIED HEREIN ARE SUBJECT TO CHANGE.

COPYRIGHT

THIS DOCUMENT CONTAINS PROPRIETARY TECHNICAL INFORMATION WHICH IS THE PROPERTY OF SIMCOM WIRELESS SOLUTIONS LIMITED. COPYING, TO OTHERS AND USING THIS DOCUMENT, ARE FORBIDDEN WITHOUT EXPRESS AUTHORITY BY SIMCOM. OFFENDERS ARE LIABLE TO THE PAYMENT OF INDEMNIFICATIONS. ALL RIGHTS RESERVED BY SIMCOM IN THE PROPRIETARY TECHNICAL INFORMATION, INCLUDING BUT NOT LIMITED TO REGISTRATION GRANTING OF A PATENT, A UTILITY MODEL OR DESIGN. ALL SPECIFICATION SUPPLIED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.

SIMCom Wireless Solutions Limited
Building B, SIM Technology Building, No. 633 Jinzhong Road, Changning District, Shanghai P.R. China
Tel: +86 21 31575100
Email: simcom@simcom.com

For more information, please visit:
https://www.simcom.com/download/list-863-en.html

For technical support, or to report documentation errors, please visit:
https://www.simcom.com/ask/ or email to: support@simcom.com

Copyright © 2020 SIMCom Wireless Solutions Limited All Rights Reserved.
About Document

Version History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Owner</th>
<th>What is new</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1.00</td>
<td>2019.09.02</td>
<td>Jiangting.Ding</td>
<td>First Release</td>
</tr>
<tr>
<td>V1.01</td>
<td>2020.02.26</td>
<td>Wenjie.lai</td>
<td>Add product types</td>
</tr>
<tr>
<td>V1.02</td>
<td>2020.07.08</td>
<td>Ping.Zhang</td>
<td>All</td>
</tr>
</tbody>
</table>

Scope

This document applies to the following products

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Size(mm)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIM7080G</td>
<td>CAT-M/NB</td>
<td>17.6<em>15.7</em>2.3</td>
<td>N/A</td>
</tr>
<tr>
<td>SIM7070G/SIM7070E</td>
<td>CAT-M/NB/GPRS</td>
<td>24<em>24</em>2.4</td>
<td>N/A</td>
</tr>
<tr>
<td>SIM7070NG</td>
<td>NB/GPRS</td>
<td>24<em>24</em>2.4</td>
<td>N/A</td>
</tr>
<tr>
<td>SIM7090G</td>
<td>CAT-M/NB</td>
<td>14.8<em>12.8</em>2.0</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Contents

About Document ............................................................................................................................................. 3
  Version History ........................................................................................................................................... 3
  Scope ......................................................................................................................................................... 3

Contents .......................................................................................................................................................... 4

1 Introduction ................................................................................................................................................ 5
  1.1 Purpose of the document ..................................................................................................................... 5
  1.2 Related documents ............................................................................................................................... 5
  1.3 Conventions and abbreviations ......................................................................................................... 5

2 PING Introduction ..................................................................................................................................... 6

3 AT Commands for PING .......................................................................................................................... 7

4 PING Examples .......................................................................................................................................... 8
  4.1 PING request for IPv4 .......................................................................................................................... 8
  4.2 PING request for IPv6 .......................................................................................................................... 8
1 Introduction

1.1 Purpose of the document

Based on module AT command manual, this document will introduce PING application process.

Developers could understand and develop application quickly and efficiently based on this document.

1.2 Related documents


1.3 Conventions and abbreviations

In this document, the GSM engines are referred to as following term:

- ME (Mobile Equipment);
- MS (Mobile Station);
- TA (Terminal Adapter);
- DCE (Data Communication Equipment) or facsimile DCE (FAX modem, FAX board);

In application, controlling device controls the GSM engine by sending AT Command via its serial interface. The controlling device at the other end of the serial line is referred to as following term:

- TE (Terminal Equipment);
- DTE (Data Terminal Equipment) or plainly "the application" which is running on an embedded system;
2 PING Introduction

PING is a computer network administration software utility used to test the reachability of a host on an Internet Protocol (IP) network. It is available for virtually all operating systems that have networking capability, including most embedded network administration software.

Ping measures the round-trip time for messages sent from the originating host to a destination computer that are echoed back to the source. The name comes from active sonar terminology that sends a pulse of sound and listens for the echo to detect objects under water.

Ping operates by sending Internet Control Message Protocol (ICMP) echo request packets to the target host and waiting for an ICMP echo reply. The program reports errors, packet loss, and a statistical summary of the results, typically including the minimum, maximum, the mean round-trip times, and standard deviation of the mean.

The command-line options of the ping utility and its output vary between the numerous implementations. Options may include the size of the payload, count of tests, limits for the number of network hops (TTL) that probes traverse, and interval between the requests. Many systems provide a companion utility ping6, for testing on Internet Protocol version 6 (IPv6) networks, which implement ICMPv6.
3 AT Commands for PING

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT+SNPDPID</td>
<td>Select PDP Index for PING</td>
</tr>
<tr>
<td>AT+SNPING4</td>
<td>Sends an IPv4 PING</td>
</tr>
<tr>
<td>AT+SNPING6</td>
<td>Sends an IPv6 PING</td>
</tr>
</tbody>
</table>

For detail information, please refer to “SIM7070_SIM7080_SIM7090 Series_AT Command Manual”.
# 4 PING Examples

## 4.1 PING request for IPv4

```
//Example of PING request for IPv4
AT+CNACT=0,1
OK //App Network Active.

+APP PDP: 0,ACTIVE
AT+SNPDPID=0
OK

AT+SNPING4="www.baidu.com",3,16,1000
+SNPING4: 1,180.97.33.108,147
+SNPING4: 2,180.97.33.108,546
+SNPING4: 3,180.97.33.108,278

OK
```

## 4.2 PING request for IPv6

```
//Example of PING request for IPv6.
AT+CNACT=0,1
OK //App Network Active.

+APP PDP: 0,ACTIVE
AT+SNPDPID=0
OK

AT+SNPING6="ipv6.baidu.com",3,16,1000
+SNPING6: 1,2400:da00:2::29,147
+SNPING6: 2,2400:da00:2::29,546
+SNPING6: 3,2400:da00:2::29,278

OK
```