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Version History

Version	Chapter	Comments
V0.01	New Version	
V0.02	2.1 AT+CWSSID	Modify the AT command format.
V0.03	AT+CWNAT AT+CWPROIDX	Remove AT+CWNAT and AT+CWPROIDX Modify AT+CWAUTH Modify AT+CWMOCH
V0.04		Modify index and date
V1.00	2.9 AT+CWWAN	Add this command

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MIFI Application Note

1. Introduction

1.1 Overview

This document gives the usage of SIM7100 MIFI functions. User can get useful information about the SIM7100 MIFI functions quickly through this document.

The MIFI functions are provided in AT command format, and they are designed for customers to design their MIFI applications easily. User can access these MIFI AT commands through UART/ USB interface which communicates with SIM7100 module.

1.2 Terms and Abbreviations

For the purposes of the present document, the following abbreviations apply:

- AT ATtention; the two-character abbreviation is used to start a command line to be sent from TE/DTE to TA/DCE
- SSID Service Set Identifier
- Broadcast

2. MIFI Related AT Commands

Below is the MIFI associated with AT commands. Related.

Command	Description
AT+CWSSID	SSID setting
AT+CWBCAST	Broadcast setting
AT+CWAUTH	Authentication type, encrypt mode and password setting
AT+CWMOCH	80211 mode and channel setting
AT+CWISO	Isolation setting
AT+CWDHCP	DHCP setting
AT+CWPROIDX	Mifi profile index setting
AT+CWCLICNT	Get wifi client number
AT+CWRSTD	Restore to default setting

2.1 AT+CWSSID SSID setting

AT+CWSSID SSID setting	
Read Command AT+CWSSID?	Response +CWSSID: <ssid>
	OK
	No parameter
Write Command AT+CWSSID=<ssid >	Response OK
	Parameter: <ssid> new ssid string
Reference	Note

Examples

```

AT+CWSSID?
+CWSSID: "7100MIFI"
OK
AT+CWSSID="7100MIFI_1"
OK

```

2.2 AT+CWBCAST Broadcast setting

AT+CWBCAST Broadcast setting	
Test Command AT+CWBCAST=?	Response +CWBCAST: (0-1)
	OK
	No parameter
Test Command AT+CWBCAST?	Response +CWBCAST: <broadcast>
	OK
	No parameter

Read Command AT+CWBCAST=<b roadcast>	Response OK Parameter: <broadcast> 0 disabled <u>1</u> enabled
Reference	Note

Examples

AT+CWBCAST?

+CWBCAST: 1

OK

AT+CWBCAST=0

OK

2.3 AT+CWAUTH Authentication setting

AT+CWAUTH Authentication type, encrypt mode and password setting	
Read Command AT+CWAUTH?	Response +CWAUTH:<auth>,<encrypt>[,<password1>] OK No parameter
Write Command AT+CWAUTH=<au th>,<encrypt> [,<password>]	Response OK Parameter <auth> 0 open/share 1 open 2 share 3 wpa 4 wpa2 <u>5</u> wpa/wpa2 <encrypt> 0 null 1 WEP 2 TKIP 3 AES

	<p style="text-align: center;"><u>4</u> TKIP-AES</p> <p>< password> password string</p> <p>The parameter need to meet the following conditions:</p> <ol style="list-style-type: none"> 1. If (auth == 0 or auth == 1) then (encrypt == 0 or encrypt == 1) 2. If (auth ==2) then (encrypt == 1) 3. If (auth >=3) then (encrypt >=2) 4. If(encrypt == 0) then (password is null) 5. If(encrypt == 1) then <ul style="list-style-type: none"> { 1) password can't be set null 2) password format: (5 ASCII character) or (10 sixteen hexadecimal number) or(13 ASCII character) or(26 sixteen hexadecimal number) } 6. if(encrypt >= 2) then <ul style="list-style-type: none"> { 1) password can't be set null 2)password format: (8~63 ASCII character or 64 hexadecimal number) }
	<p>Note</p>

Examples

AT+CWAUTH?

+CWAUTH: 0,1, "11111"

OK

AT+CWAUTH?

+CWAUTH: 5,4, "12345678"

OK

Auth : open/share encrypt :null

AT+CWAUTH=0,0

OK

Auth : open/share encrypt :WEP

AT+CWAUTH=0,1,"11111"

OK

Auth : share encrypt :WEP (ASCII character password : 12345)

AT+CWAUTH=2,1,"12345"

OK

Auth : share encrypt :WEP (sixteen hexadecimal number : password 12345)

AT+CWAUTH=2,1,"3132333435"


```
OK
Auth : WPA/WPA2  encrypt :TKIP-AES
AT+CWAUTH=5,4,"abcd1234"
OK
```

2.4 AT+CWMOCH 80211 mode and channel setting

AT+CWMOCH 80211 mode and channel setting																			
Test Command AT+CWMOCH?	Response +CWMOCH: <mode>,<channel> OK No parameter																		
Read Command AT+CWMOCH=<m ode>,<channel>	Response OK Parameter: < mode > <table border="0"> <tr><td>1</td><td>a/n</td><td>5G mode</td></tr> <tr><td>2</td><td>b</td><td>2.4G mode</td></tr> <tr><td>3</td><td>b/g</td><td>2.4G mode</td></tr> <tr><td>4</td><td>b/g/n</td><td>2.4G mode</td></tr> </table> < channel > <table border="0"> <tr><td>0</td><td>auto select</td></tr> <tr><td>1~13</td><td>2.4Gmode channel number</td></tr> <tr><td>149/153/157/161/165</td><td>5G mode channel number</td></tr> </table> If <mode> is 1 (a/n), <channel> can be set 149/153/157/161/165 If <mode> is 2/3/4, <channel> range is 0~13 If <mode> is 1, the client must be support 5G mode	1	a/n	5G mode	2	b	2.4G mode	3	b/g	2.4G mode	4	b/g/n	2.4G mode	0	auto select	1~13	2.4Gmode channel number	149/153/157/161/165	5G mode channel number
1	a/n	5G mode																	
2	b	2.4G mode																	
3	b/g	2.4G mode																	
4	b/g/n	2.4G mode																	
0	auto select																		
1~13	2.4Gmode channel number																		
149/153/157/161/165	5G mode channel number																		
Reference	Note																		

Examples

```
AT+CWMOCH?
+ CWMOCH: 4,0
OK
AT+ CWMOCH =3, 1
OK
```

2.5 AT+CWISO Isolation setting

AT+CWISO Isolation setting	
Test Command AT+CWISO=?	Response +CWISO: (0-1) OK No parameter
Test Command AT+CWISO?	Response +CWISO: <isolation> OK No parameter
Read Command AT+CWISO=<isolation>	Response OK Parameter: < isolation > 0 disabled 1 enabled
Reference	Note

Examples

```
AT+CWISO?
+CWBCAST: 0
OK
AT+CWISO=1
OK
```

2.6 AT+CWDHCP DHCP setting

AT+CWDHCP DHCP setting	
Test Command AT+CWDHCP?	Response +CWDHCP:<host_ip>,<range_start_ip>,<range_end_ip>,<leasetime> OK No parameter

Read Command AT+CWDHCP=<host_ip>,<range_start_ip>,<range_end_ip>,<leasetime>	Response OK
	Parameter: <host_ip> the ap ip 192.169.X.Y <range_start_ip> 192.168.SX.SY <range_end_ip> 192.168.EX.EY
	The X, Y, SX, SY, EX, EY need to meet the following conditions: 1: 0 =< X = SX = EX <= 255 2: 1 <= SY <= EY < Y <= 245 or Y+9 < SY <= EY <= 254
	<Leasetime> 1h~48h 1hours ~ 48hours
	Note

Examples

```
AT+CWDHCP?
+CWDHCP: "192.168.0.1","192.168.0.100","192.168.0.140",12h
OK
AT+CWDHCP="192.168.0.1","192.168.0.40","192.168.0.50",6h
OK
```

2.7 AT+CWCLICNT Get wifi client number

AT+ CWCLICNT Get wifi client number	
Test Command AT+CWCLICNT?	Response +CWCLICNT: <count>
	OK
	No parameter
Reference	Note

Examples

```
AT+CWCLICNT?
+CWCLICNT: 1
OK
```

2.8 AT+CWRSTD Restore to default setting

AT+ CWRSTD Restore all MIFI setting to default	
Test Command AT+CWRSTD	Response OK
	No parameter The module will reboot after restore
Reference	Note

Examples

```
AT+CWRSTD
OK
```

2.9 AT+CWWAN Get mifi wan status

Description

The command is used to get the mifi wan status..

SIM PIN	References
NO	Vendor

Syntax

Test Command	Responses
AT+CWWAN=?	+CWWAN: (0,1) OK
Read Command	Responses
AT+CWWAN?	+CWWAN: <wan_status> OK

Defined values

```
<wan_status >
The mifi wan status:
0 – disconnected.
```

1 – connected.

Examples

AT+CWWAN?

+CWWAN: 1

OK

AT +CWWAN =?

+CWWAN: (0,1)

OK

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