



SIM7000 Series_CTBURST _Application Note

LPWA Module

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About Document

Version History

Version	Date	Owner	What is new
V1.00	2019.11.26	Yingjie.Li	First Release
V1.01	2020.07.28	Wenjie.Lai	All

Scope

This document applies to the following products

Name	Type	Size(mm)	Comments
SIM7000E/C/A/G	Cat-M1(/NB1/EGPRS)	24*24	
SIM7000E-N SIM7000C-N	NB1	24*24	

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 CTBURST Introduction	6
3 AT Commands for CTBURST	7
4.1 AT+CTBURST The RF TX Burst Test.....	7
4 CTBURST Examples	9

1 Introduction

1.1 Purpose of the document

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

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

1.2 Related documents

[1] SIM7000 Series_AT Command Manual

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 CTBURST Introduction

CTBURST command is used to start or stop continuous burst transmitting for production verification test at manufacturer.

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3 AT Commands for CTBURST

Command	Description
AT+CTBURST	The RF TX Burst Test

4.1 AT+CTBURST The RF TX Burst Test

AT+CTBURST The RF TX Burst Test

Response	OK
	or ERROR
Parameters	<mode>
	0 Stop RF TX Burst 1 Start RF TX Burst
<band>	0 GSM 850 Band 1 GSM 900 Band 2 GSM DCS 1800 Band 3 GSM PCS 1900 Band
	101 LTE 1 Band 102 LTE 2 Band 103 LTE 3 Band 104 LTE 4 Band 105 LTE 5 Band 108 LTE 8 Band 112 LTE 12 Band 113 LTE 13 Band 118 LTE 18 Band 119 LTE 19 Band 120 LTE 20 Band 126 LTE 26 Band 128 LTE 28 Band
<channel>	Frequency channel
	128~251 GSM 850 1~124,975~1023 GSM 900 512~885 GSM DCS 1800
Write Command	AT+CTBURST=<mode>[,<band>,<channel>,<power>[,<slot_num>]]

512~810	GSM PCS 1900
18000~18599	LTE 1
18600~19199	LTE 2
19200~19949	LTE 3
19950~20399	LTE 4
20400~20649	LTE 5
21450~21799	LTE 8
23010~23179	LTE 12
23180~23279	LTE 13
23850~23999	LTE 18
24000~24149	LTE 19
24150~24449	LTE 20
26690~27039	LTE 26
27210~27659	LTE 28

<powerl> Power control level. The power in dBm*100, the value is different for different band.

<slot_num> The slot number for GSM burst, this parameter is invalid for WCDMA band and LTE band.

0-7

Parameter Saving Mode NO_SAVE

Max Response Time -

Reference

NOTE

- If <mode>=0, other parameters are not required, it will stop the current starting RF band test, otherwise it return error.
- If <mode>=1, all the other parameters are required.
- If <band> is GSM band, module should support GSM band.

4 CTBURST Examples

//CTBURST Examples

```
AT+CFUN=5 //Enter FTM(factory test mode) mode first
OK
AT+CFUN=1,1 //Reboot module after AT+CFUN=5.
OK
AT+CTBURST=1,1,62,3300,1 //Start CTBURST with GSM band.
OK
AT+CTBURST=0 //Stop CTBURST
OK
AT+CTBURST=1,105,20400,2200 //Start CTBURST with LTE band.
OK
AT+CTBURST=0 //Stop CTBURST
OK
AT+CFUN=1 //Exit FTM mode
OK
```

NOTE

If you want to change the band, channel or power level, you must disable the burst first, and then change it.