



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	

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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

Write Command

**AT+CTBURST=<mode>
>[,<band>,<channel>,<
power>][,<slot_num>]]**

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

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.