SIM7600M22_MIFI_SIM7800 Series_BT_Application Note

LTE Module

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About Document

Version History

Version	Date	Owner	What is new
V2.00	2020.8.6		Update document format
V3.00	2021.11.19		Update document format

Contents

1 Introduction

1.1 Purpose of the document

This document gives the usage of SIM7600M22_MIFI/SIM7800 BT functions. User can get useful information about the SIM7600M22_MIFI/SIM7800 BT functions quickly through this document.

The BT functions are provided in AT command format, and they are designed for customers to design their BT applications easily. User can access these BT AT commands through UART/ USB interface which communicates with SIM7600M22_MIFI/SIM7800 module.

2 AT Commands for BT

Command	Description
AT+BTPOWER	Open/Close BT
AT+BTHOST	Get/Set host name
AT+BTSCAN	Scan BT device
AT+BTIOCAP	IOCAP with mode setting
AT+BTPAIR	Pair with other BT device
AT+BTUNPAIR	Unpair with the paired BT device
AT+BTPAIRED	Get paired BT device
AT+BTSPPSRV	Active/Deactive spp server
AT+BTSPPPROF	Get remote device spp status
AT+BTSPPCONN	SPP connect/disconnect
AT+BTSPPSEND	SPP send data
AT+BTGATTREG	GATT register
AT+BTGATTACT	GATT active
AT+BTGATTCREDB	GATT create DB
AT+BTGATTCRESRV	GATT create service
AT+BTGATTCRECHAR	Create service characteristic
AT+BTGATTCRECHARDES	Create service characteristic description
AT+BTGATTSRVADD	DB add to GATT server
AT+BTGATTREADCFM	Response to GATTREAIND
AT+BTGATTWRCFM	Response to BTGATTWRIND
AT+BTGATTNOTIFY	Send notification to client
AT+BTGATTSENDIND	Send indication to client

For detail information, please refer to "SIM7600 Series_AT Command Manual".

3 BT Samples

3.1   Relation AT Configure

3.1.1   Open BT

//Example of Open BT
AT+BTPOWER=1,1
OK

3.1.2   Scan BT device

//Example of scan BT device
AT+BTSCAN=1,0,10
OK
+BTSCAN: 0, 1, MKRJ2B-GONGYONG, B8:86:87:43:4B:6A, 186
+BTSCAN: 0, 2, MK-JUMPING, 00:19:86:00:08:60, 184
+BTSCAN: 0, 3, OPPO A57, 4C:18:9A:89:88:7E, 174
+BTSCAN: 0, 4, ww 炸, C4:0B:CB:3E:68:62, 173
+BTSCAN: 0, 5, ofo, F7:51:3B:1F:AF:B5, 165
+BTSCAN: 1

3.1.3   Pair with BT device

//Example of pair with BT device
AT+BTPAIR=0,5
OK
+BTPAIRING: 1, ww, C4:0B:CB:3E:68:62, 623850
AT+BTPAIR=1,1
OK
+BTPAIR: 1, ww, C4:0B:CB:3E:68:62

3.2 GATT Server

3.2.1 GATT Register

//BT GATT register
AT+BTGATTREG=1
+BTGATTREG: 1
OK

3.2.2 GATT active

//Example of GATT active
AT+BTGATTACT
+BTGATTACT: 1

OK

3.2.3 GATT create DB

//Example of GATT create DB
AT+BTGATTCREDB
+BTGATTCREDB: 1

OK

3.2.4 GATT create service

//Example of GATT create service
AT+BTGATTCRESRV=34A3
+BTGATTCRESRV: 1

OK

3.2.5 GATT create service characteristic

//Example of GATT create service characteristic
AT+BTGATTCRECHAR=4567,2,16
+BTGATTCRECHAR: 1,0x4567,13

OK

3.2.6 GATT create service characteristic description

//Example of GATT create service characteristic description
AT+BTGATTCRECHARDES
+BTGATTCRECHARDES: 1

OK

3.2.7 DB add to GATT server

//Example of DB to GATT server
AT+BTGATTSRVADD
+BTGATTSRVADD: 1

OK

3.3 Data transmission between module and client

Data transmission between module and client	
+BTGATTCONN: 1, 68:68:79:6D:75:26	APP connect with module
+BTGATTREADIND: 13,22	APP read data
AT+BTGATTREADCFM=0,1234 +BTGATTREADCFM: 1	Answer with 1234

OK	
+BTGATTWRIND: 17, ABCD	**Write with ABCD**
AT+BTGATTWRCFM=0 **+BTGATTWRCFM: 1** **OK**	**Answer the write request**
AT+BTGATTNOTIFY=15,9876 **+BTGATTNOTIFY: 1** **OK**	**Module send 9876 to Notify characteristic**
+BTGATTCONN: 0, 68:68:79:6D:75:26	**APP disconnect with module**