MuYu

MY-BT201 Commands Guide

Version 1.9

Contact Us

Shenzhen Muyu Technology Co., Ltd
Email: info@muyusmart.com
Zipcode：518100
Web: www.muyumodule.com

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1.Introduction

1.1 Overview

MuYu serial communication command is the communication protocol between the Bluetooth module MY-BT201/BT301A/BT301B/BT301C and the MCU. It contains all the protocols included in the Bluetooth function such as data commands, audio command, control commands, and transmission commands. These commands may not necessarily follow the requirements. The Bluetooth module commands are consistent, but they are included. You only need to find out the corresponding required commands when you use them. If there is no response to the sending command or the return "ERROR" is normal, use the commands with the corresponding firmware That is, the default baud rate of the Bluetooth serial port is 115200.

1.2 Command Format

AT+ Command {=Param1{, Param2{, Param3…}}} <CR><LF>

- All command start with “AT”, end with <CR><LF>
- <CR> stand for “carriage return”, corresponding hex is 0x0D
- <LF> stands for “line feed”, corresponding hex is 0x0A
- If command has parameter, parameter keep behind “=”
- If command has multiple parameter, parameter must be separated by “,”
- If command has response, response start with <CR><LF>, end with <CR><LF>
- Module will always report command’s execution result using “OK” for success or “ERROR” for failure
- Module UART default baud rate 115200
- All module instructions are in uppercase letters
- Data: 8
- Parity: none
- Stop bit 1
- C->S Host send COMMAND to the module
- C<-S Module send COMMAND to host
- R: stand for read data
- W: stand for write data

2.General Command

2.1 UART Communication Test

Command Explain
Format: AT Response: OK Description: UART communication testing between HOST and Module
Example
C->S AT C<-S OK

2.2 Read Firmware Version: AT+VER

Command Explain
Format: AT+VER Response: +VER=Param Description: Param: firmware version
Example
C->S AT+VER C<-S +VER=1.0.0,MY-BT201 C<-S OK

2.3 Read Baud Rate: AT+BAUD

Command Explain
Format: AT+BAUD Response: +BAUD=Param Description: Current Baud Rate
Example
C->S AT+BUAD C<-S +BAUD=115200 C<-S OK

2.4 Change Baudrate: AT+BAUD=Param

Command Explain
Format: AT+BAUD=Param Response: +BAUD=Param Description: Write Baudrate（1200-921600）
Example
C->S AT+BUAD=115200 C<-S +BUAD=115200 C<-S OK

2.5 Read BR/EDR MAC Address: AT+ADDR

Command Explain
Format: AT+ADDR Response: +ADDR=Param Description: BR/EDR MAC address (12 Bytes ASCII)
Example
C->S AT+ADDR C<-S +ADDR=DD0D305AF263 C<-S OK

2.6 Read BR/EDR MAC Bluetooth Name: AT+NAME

Command Explain
Format: AT+NAME Response: +NAME=Param Description: BR/EDR Bluetooth Name (1~31 Bytes ASCII)
Example
C->S AT+NAME C<-S +NAME=MY-102 C<-S OK

2.7 Write BR/EDR Bluetooth Name: AT+NAME=PARAM1,PARAM2

Command Explain
Format: AT+NAME=Param1,Param2 Response: OK Description: Param1: BR/EDR Bluetooth Name (1~27/31 Bytes ASCII) Param2: Add the last four digits of the Bluetooth MAC address, 0: not adding, 1 means adding
Example
C->S AT+NAME=MY-401,1 C<-S OK

2.8 Read PIN Code: AT+PIN

Command Explain
Format: AT+PIN Response: +PIN=Param Description: PIN Code，(4~15 Bytes ASCII), Default PIN Code: 0000
Example
C->S AT+PIN C<-S +PIN=0000 C<-S OK

2.9 Write PIN Code: AT+PIN=PARAM

Format: AT+PIN=Param Response: +PIN=Param Description: PIN Code (4~15 Bytes ASCII)
Example
C->S AT+PIN=1234 C<-S OK

2.10 Read SSP (Secure Simple Pairing) Status: AT+SSP

Command Explain
Format: AT+SSP Response: +SSP=Param(0~1) Description: Param=0(turn off SSP), 1(turn on SSP)
Example
C->S AT+SSP C<-S +SSP=0 C<-S OK

2.11 Write SSP (Secure Simple Pairing) Status: AT+SSP=PARAM

Command Explain
Format: AT+SSP=Param(0~1) Response: +SSP=Param Description: Param=0(turn off SSP), 1(turn on SSP)
Example
C->S AT+SSP=1 C<-S OK

2.12 Read Bluetooth Icon: AT+COD

Command Explain
Format: AT+COD Response: +COD=Param Description: Param=Bluetooth Icon， Used to display on the device, such as headset form, keyboard form, mouse form, etc.
Example
C->S AT+COD C<-S +COD=240404 C<-S OK

2.13 Write Bluetooth Icon: AT+COD=Param

Command Explain
Format: AT+COD=Param

Response: +COD=Param OK Description: Param=Bluetooth Icon，Used to display on the device, such as headset form, keyboard form, mouse form, etc.
Example
C->S AT+COD=240204 C<-S +COD=240404 C<-S OK

2.14 Connect/Disconnect TWS: AT+TWS

Command Explain
Format: AT+TWS Response: +TWS Description: Send once to initiate TWS connection, and send again to disconnect TWS after TWS is connected
Example
C->S AT+TWS C<-S +TWS C<-S OK

2.15 Disconnect the connected device: AT+DISC

Command Explain
Format: AT+DISC Response: OK Description: Disconnect the connected devices
Example
C->S AT+DISC C<-S OK

2.16 Disconnect all connected devices: AT+DISCA

Command Explain
Format: AT+DISCA Response: OK Description: Disconnect all connected devices
Example
C->S AT+DISCA C<-S OK

2.17 Reboot the device: AT+REBOOT

Command Explain
Format: AT+REBOOT Response: OK Description: Reboot the device
Example
C->S AT+REBOOT C<-S OK

3.Audio Command

3.1 Read Bluetooth PROFILE: AT+PROFILE

Command Explain		
Format: AT+PROFILE Description: Default:171(Decimal)		
	BIT0	SPP (Serial Port Profile)
	BIT1	GATT Server (Generic Attribute Profile)
	BIT2	GATT Client (Generic Attribute Profile)
	BIT3	HFP Sink (Hands-Free Profile)
	BIT4	HFP Source (Hands-Free Profile)
	BIT5	A2DP Sink (Advance Audio Distribution Profile)
	BIT6	A2DP Source (Advance Audio Distribution Profile)
	BIT7	AVRCP Controller (Audio/Video Remote Controller Profile)
	BIT8	AVRCP Target (Audio/Video Remote Controller Profile)
	BIT9	HID Keyboard (Human Interface Profile)
	BIT10	PBAP Server (Phonebook Access Profile)
Example:		
D->S AT+PROFILE C<-S +PROFILE=171		

3.2 Configure PROFILE: AT+PROFILE=PARAM

Command Explain		
Format: AT+PROFILE =Param Description: Default:171(Decimal)		
	BIT0	SPP (Serial Port Profile)
	BIT1	GATT Server (Generic Attribute Profile)
	BIT2	GATT Client (Generic Attribute Profile)
	BIT3	HFP Sink (Hands-Free Profile)
	BIT4	HFP Source (Hands-Free Profile)
	BIT5	A2DP Sink (Advance Audio Distribution Profile)
	BIT6	A2DP Source (Advance Audio Distribution Profile)
	BIT7	AVRCP Controller (Audio/Video Remote Controller Profile)

	BIT8	AVRCP Target (Audio/Video Remote Controller Profile)
	BIT9	HID Keyboard (Human Interface Profile)
	BIT10	PBAP Server (Phonebook Access Profile)

Example: Open A2DP Sink , HFP Sink， close other functions
E->S AT+PROFILE=160 C<-S OK

3.3 Read Volume: AT+SPKVOL

Command Explain
Format: AT+SPKVOL Response： +SPKVOL=Param Description: current volume level
Example
C->S AT+SPKVOL C<-S +SPKVOL=10 C<-S OK

3.4 Increase Speaker Volume: AT+SPKVOL=+

Command Explain
Format: AT+SPKVOL=+ Response： OK Description: Each time, the volume increases by one until the maximum volume is reached.
Example
C->S AT+SPKVOL=+ C<-S OK

3.5 Speaker Volume Down: AT+SPKVOL=-

Command Explain
Format: AT+SPKVOL=- Response: OK Description: Each time the volume is decremented by one, until the minimum volume
Example
C->S AT+SPKVOL=- C<-S OK

3.6 Setting Speaker Volume: AT+SPKVOL=PARAM

Command Explain
Format: AT+SPKVOL=16 Response: +SPKVOL=16 Description: Setting the speaker volume
Example
C->S AT+SPKVOL=16 C<-S +SPKVOL=16 C<-S OK

3.7 Read MIC Volume: AT+MICGAIN (A2DP/HSP SOURCE ONLY)

Command Explain
Format: AT+MICGAIN Response： +MICGAIN =Param Description: Current volume level
Example
C->S AT+MICGAIN C<-S +MICGAIN =10 C<-S OK

3.8 Increase MIC Volume: AT+MICGAIN=+

Command Explain
Format: AT+MICGAIN =+ Response： OK Description: Each time, the volume increases by one until the maximum volume is reached.
Example
C->S AT+MICGAIN =+ C<-S OK

3.9 Reduce MIC Volume: AT+MICGAIN=-

Command Explain
Format: AT+MICGAIN =- Response： OK Description: Each time the volume is decremented by one, until the minimum volume
Example
C->S AT+MICGAIN =- C<-S OK

3.10 Read Audio EQ: AT+EQ

Command Explain
Format: AT+EQ Response： +EQ=0 Description: Read audio EQ grade (0~5)
Example
C->S AT+EQ C<-S +EQ=0 C<-S OK

3.11 Set Audio EQ: AT+EQ=PARAM

Command Explain
Format: AT+EQ=0 Response： +EQ=0 Description: Read audio EQ grade (0~5)
Example
C->S AT+EQ=0 C<-S +EQ=0 C<-S OK

3.12 Read Serial Debugging Print Mode: AT+PRINT

Command Explain
Format: AT+PRINT Response： +PRINT=Param(0~1) Description: 0: Turn off 1: Turn On
Example
C->S AT+PRINT C<-S +PRINT=1 C<-S OK

3.13 Turn On/Off Serial Debugging Print Mode: AT+PRINT=PARAM

Command Explain
Format: AT+PRINT=Param (0~1) Response： +PRINT=Param Description: 0: Turn off 1: turn on
Example
C->S AT+PRINT=1 C<-S +PRINT=1 C<-S OK

3.14 Read Delay Control MUTE Time: AT+MUTEDELAY

Command Explain
Format: AT+MUTEDELAY Response： +MUTEDELAY=Param Description: Delay time, unit: ms
Example
C->S AT+MUTEDELAY C<-S +MUTEDELAY=50 C<-S OK

3.15 Change Delay Control MUTE Time: AT+MUTEDELAY=PARAM

Command Explain
Format: AT+MUTEDELAY=Param Response： +MUTEDELAY=Param Description: Delay time, unit: ms
Example
C->S AT+MUTEDELAY=50 C<-S +MUTEDELAY=50 C<-S OK

3.16 Read LINE IN: AT+LINECFG

Command Explain
Format: AT+LINECFG Response： +LINECFG=Param (0~1) Description: 0: Turn off LINE IN 1: Turn on LINE IN
Example
C->S AT+LINECFG C<-S +LINECFG=0 C<-S OK

3.17 Turn On/Off LINE IN: AT+LINECFG=PARAM

Command Explain
Format: AT+LINECFG=Param(0~1) Response： +LINECFG=Param Description: 0 : Turn off LINE IN 1 : Turn on LINE IN
Example
C->S AT+LINECFG=1 C<-S +LINECFG=1 C<-S OK

3.18 Read HFP Status: AT+HFPSTAT

Command Explain
Format: AT+HFPSTAT Response：+HFPSTAT=Param Description: 0: Not initialized 1: Not connected 2: Connected 3: Connected 4: Outgoing 5: Incoming call 6: Calling
Example
C<-S +HFPSATA=1

3.19 Redial: AT+HFPDIAL

Command Explain
Format: AT+HFPDIAL Response: +HFPDIAL=07556687359 OK Description: phone number dialed
Example
C->S AT+HFPDIAL C<-S +HFPCONN=07556697359 C<-S OK

3.20 Dial: AT+HFPDIAL=PARAM

Command Explain
Format: AT+HFPDIAL=Param Response： +HFPDIAL= Param OK Description: phone number dial
Example
C->S AT+HFPDIAL=07556697359 C<-S +HFPCONN=07556697359 C<-S OK

3.21 Answer Calls: AT+HFPANSW

Command Explain
Format: AT+HFPANSW Response： OK Description: Answer Calls
Example
C->S AT+HFPANSW C<-S OK

3.22 Hang Up: AT+HFPCHUP

Command Explain
Format: AT+HFPCHUP Response： OK Description: hang up
Example
C->S AT+HFPACHUP C<-S OK

3.23 Read MIC Status: AT+MUTEMIC

Command Explain
Format: AT+MUTEMIC Response: +MUTEMIC=Param(0~1) OK Description: 0: turn off MIC， 1: turn on MIC
Example
C->S AT+MUTEMIC C<-S +MUTEMIC=1 C<-S OK

3.24 Turn On/Off MIC AT+MUTEMIC=PARAM

Command Explain
Format: AT+MUTEMIC=Param(0~1) Response： +MUTEMIC=Param OK Description: 0: Turn off MIC 1:Turn on MIC
Example
C->S AT+MUTEMIC=1 C<-S +MUTEMIC=1 C<-S OK

3.25 Read A2DP Status: AT+A2DPSTAT

Command Explain
Format: AT+A2DPSTAT Response： +A2DPSTAT=Param(0~4) Description: 0: Not initialized 1: Not connected 2: Connecting 3: Connected 4: Playing
Example
C->S AT+A2DPSTAT C<-S + A2DPSTAT =1

3.26 Reconnect A2DP: AT+A2DPCONN

Command Explain
Format: AT+A2DPCONN Response： +OK Description: A2DP to connect to the last paired device
Example
C->S AT+A2DPCONN C<-S +OK

3.27 Connect to the specified A2DP device: AT+A2DPCONN=PARAM

Command Explain
Format: AT+A2DPCONN=Param Response： +OK Description: Connect the device with the specified MAC address (12bytes ASCII)
Example
C->S AT+A2DPCONN=112233445566 C<-S +OK

3.28 Disconnect A2DP: AT+A2DPDISC

Command Explain
Format: AT+A2DPDISC Response： +OK Description: Disconnect A2DP connection
Example
C->S AT+A2DPDISC C<-S +OK

3.29 Audio Play: AT+PLAY

Command Explain
Format: AT+PLAY Response： +OK Description:
Example
C->S AT+PLAY C<-S +OK

3.30 Audio Pause: AT+PAUSE

Command Explain
Format: AT+PAUSE Response： +OK Description:
Example
C->S AT+PAUSE C<-S +OK

3.31 Play/Pause Exchange: AT+PLAYPAUSE

Command Explain
Format: AT+PLAYPAUSE Response： +OK Description:

Example
C->S AT+PLAYPAUSE C<-S +OK

3.32 Stop: AT+STOP

Command Explain
Format: AT+STOP Response： +OK Description:
Example
C->S AT+STOP C<-S +OK
指令说明

3.33 Next Song: AT+FORWARD

Command Explain
Format: AT+FORWARD Response： +OK Description:
Example
C->S AT+FORWARD C<-S +OK

3.34 Previous Song AT+BACKWARD

Command Explain
Format: AT+BACKWARD Response： +OK Description:
Example
C->S AT+BACKWARD C<-S +OK

3.35 Fast-forward: AT+FFDW

Command Explain
Format: AT+FFDW Response： +OK Description:
Example
C->S AT+FFDW C<-S +OK

3.36 Backward: AT+RWD

Command Explain
Format: AT+RWD Response： +OK Description:
Example
C->S AT+RWD C<-S +OK