IS1681S串口通讯协议(默认是9600bit/s)

命令格式如下:

	HEAD		MID	DATA	CRC
	START	LENGTH	COM.ID	COM PARAM	CHK SUM
BYTE NO	0	1~2	3	4~24	Length + 3
SIZE (BYTE)	1	2	1	0~20	1
VALUE	0xAA	1~21	COMMAND	DATA	CHK SUM
	SINC WORD	Check	sum to be cal	lculated	
			TARGET	LENGTH	

Check sum rule:

Summation of every byte afer SNIC WORD(LENGTH, COM.ID, COM PARAM, CHK SUM) is 0xXX00.

e.g.

9	START	LENGTH(H)	LENGTH(L)	COM.ID	COM PARAM	CHK SUM
BYTE NO	0	1	2	3	4	5
VALUE	0xAA	0x00	0x02	0x01	0x00	0xFD

(0x00 + 0x02 + 0x01 + 0x00 + 0xFD) = 0x100

A2DP:

以下是 A2DP 的协议命令

1) 播放/暂停

< Command: AA 00 03 02 00 32 C9

> Return: AA 00 02 00 02 FC

2) 下一曲

< Command: AA 00 03 02 00 34 C7

> Return: AA 00 02 00 02 FC

3) 上一曲

< Command: AA 00 03 02 00 35 C6

> Return: AA 00 02 00 02 FC

4) 快进

< Command: AA 00 03 04 00 01 F8

> Return: AA 00 02 00 04 FA

5) 停止快进

< Command: AA 00 03 04 00 00 F9

> Return: AA 00 02 00 04 FA

6) 快退

< Command: AA 00 03 04 00 03 F6

> Return: AA 00 02 00 04 FA

7) 停止快退

< Command: AA 00 03 04 00 00 F9

> Return: AA 00 02 00 04 FA

- 8) 停止音乐 (STOP)
- < Command: AA 00 03 02 00 33 C8
- > Return: AA 00 02 00 02 FC
- 9) 音量加
- < Command: AA 00 03 02 00 30 CB
- > Return: AA 00 02 00 02 FC
- 10) 音量减
- < Command: AA 00 03 02 00 31 CA
- > Return: AA 00 02 00 02 FC
- 11) EO加
- < Command: AA 00 03 02 00 38 C3
- > Return: AA 00 02 00 02 FC
- 12) EQ 减
- < Command: AA 00 03 02 00 39 C2
- > Return: AA 00 02 00 02 FC
- 13) 断开 A2DP 连接
- < Command: AA 00 03 02 00 3B C0
- > Return: AA 00 02 00 02 FC
- 14) 进入配对状态
- < Command: AA 00 03 02 00 5D 9E
- > Return: AA 00 02 00 02 FC
- 15) 退出配对状态
- < Command: AA 00 03 02 00 80 7B
- > Return: AA 00 02 00 02 FC
- 16) 开机
- < Command: AA 00 03 02 00 52 A9
- > Return: AA 00 02 00 02 FC
- 17) 关机
- < Command: AA 00 03 02 00 53 A8
- > Return: AA 00 02 00 02 FC

HFP:

- 1) 接听电话
- < Command: AA 00 03 02 00 04 F7
- > Return: AA 00 02 00 02 FC
- 2) 挂断电话
- < Command: AA 00 03 02 00 06 F5
- > Return: AA 00 02 00 02 FC
- 3) 拒绝接听电话

- < Command: AA 00 03 02 00 05 F6
- > Return: AA 00 02 00 02 FC
- 4) MIC 静音
- < Command: AA 00 03 02 00 08 F3
- > Return: AA 00 02 00 02 FC
- 5) MIC 不静音
- < Command: AA 00 03 02 00 09 F2
- > Return: AA 00 02 00 02 FC
- 6) 启动语音拨号
- < Command: AA 00 03 02 00 0A F1
- > Return: AA 00 02 00 02 FC
- 7) 取消语音拨号
- < Command: AA 00 03 02 00 0B F0
- > Return: AA 00 02 00 02 FC
- 8) 末号回拨
- < Command: AA 00 03 02 00 0C EF
- > Return: AA 00 02 00 02 FC
- 9) 手机,蓝牙通话切换
- < Command: AA 00 03 02 00 0E ED
- > Return: AA 00 02 00 02 FC
- 10) 断开 HFP 连接
- < Command: AA 00 03 02 00 17 E4
- > Return: AA 00 02 00 02 FC
- 11) 连接 HFP
- < Command: AA 00 03 02 00 16 E5
- > Return: AA 00 02 00 02 FC
- 12) MIC音量加
- < Command: AA 00 03 02 00 24 D7
- > Return: AA 00 02 00 02 FC
- 13) MIC音量减
- < Command: AA 00 03 02 00 25 D6
- > Return: AA 00 02 00 02 FC
- 14) 拨打电话
- < Command: AA 00 07 00 00 31 30 30 38 36 FA ----- (10086)
- > Return: AA 00 02 00 00 FE

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VALUE	0xAA	1~21	COMMAND	DATA	CHK SUM
	SINC WORD	Check	sum to be cal	culated	
			TARGET LENGTH		

Check sum rule:

Summation of every byte afer SNIC WORD(LENGTH, COM.ID, COM PARAM, CHK SUM) is 0xXX00.

e.g.

	START	LENGTH(H)	LENGTH(L)	COM.ID	COM PARAM	CHK SUM
BYTE NO	0	1	2	3	4	5
VALUE	0xAA	0x00	0x02	0x01	0x00	0xFD

(0x00 + 0x02 + 0x01 + 0x00 + 0xFD) = 0x100

- 1: DEVICE STATE:
- 1) COM-ID-----0X01
- 2) COM PARAM-----2 个字节

第一个字节表示现在蓝牙设备的状态,具体的格式如下:

state SIZE: 1 BYTE

Value	Parameter Description			
0x00	Power_OFF			
0x01	Pairing_Mode (discoverable state)			
0x02	Power ON			
0x03	Pairing_Complete			
0x04	Pairing_Fail			
0x05	HF Connection Complete			
0x06	A2DP_Connection_Complete			
0x07	HF_Disconnected			
0x08	A2DP_Disconnected			
0x09	SCO_Connection_Complete			
0x0A	SCO_Disconnected			
0x0B	AVRCP_Connection_Complete			
0x0C	AVRCP_Disconnected			

第二个字节是特别的状态参数,不需要解析。

最后一个字节是 CHECKSUM

- 2: CALL-STATUS
- 1) COM-ID-----0X02
- 2) COM PARAM-----2 个字节

第一个字节表示特殊的状态,不用解析。

第二个字节表示现在的电话状态,具体的格式如下:

最后一个字节是CHECKSUM

call status SIZE: 1 BYTE

Value	Parameter Description			
0x00	Call Idle			
0x00 0x01	Voice Call			
0x02	Incoming Call			
0x03	Outgoing Call			
0x04	Ongoing Call			
0x05	Call Active With Call Waiting			
0x06	Call Active With Call Held			

- 3: CALL-ID (来电显示)
- 1) COM-ID-----0X03
- 2) COM PARAM-----(LENGTH-1)个字节
 - 第一个字固定为 0x00, 表示后边跟着的数据是来电号码
 - 第二个字节开始的数据是来电号码,
 - 最后一个字节是 CHECKSUM