MP3 module Slave Mode Protocol V0.1

Dane kontaktowe producenta:
>
 Telefoniczny
694-447-535
w godz 6.00-18.00

gadu-gadu
 1741384

mail
biuro@serwis.tv

Contents

1...Packet Format

1.1   UART

In slave mode, UART is used for communication in 10bit asynchronous transfer mode, defaulting GPIOA0 as TX, GPIOA1 as RX and 57,600bps as baud rate. Format of each byte is as follows:

Start bit	Data bits	Stop bit
0	bit0……bit7	1

1.2   Packet Format

Any command is transmitted in packet to assure communication reliability and assure the consistency of transmitted data.

1Byte	1Byte	1Byte	1Byte	1Byte	Len Bytes	1Byte
0x55	0xAA	len	Cmd_H	Cmd_L	Data	CS

◆   x55,0xAA: Packet guider is SOP and all packets start from 0x55,0xAA.

◆   Len: Total length of data domain.

◆   Cmd_H: High 8-bit of CommandID. The highest bit of Cmd_H is direction bit. 0 means that the packet is transmitted from the host to the slave, and 1 means that the packet is transmitted from the slave to the host.

◆   Cmd_L: Low 8-bit of CommandID.

◆   Data: For data in the packet, the length is 0-250 and contents are determined by Cmd.

◆   CS: Packet check and bytes are computed as follows:

   CS = 0 – (Len + Cmd_H + Cmd_L + Data[0] + … + Data[n-1]).

1.3   Communication

After the slave has been powered on and starts to send START..., it indicates that it starts to operate normally. Any command in this protocol will follow the following flow:

◆   First, the host sends out a command request packet.

◆   After having received this command request packet, the slave sends back a reply packet after having completed relevant operation and sends the operation results back to the host.The slave changes the highest bit of the command code sent by the host into 1 as the command code of the reply packet.

◆   After having sent a command, the host sets a time-out timer. If the slave fails to send back a reply within a certain period, the host will treat it as time-out.

1.4   Byte Order

In a packet, some fields are WORD type data consisting of multiple bytes or DWORD type data with high bytes in front and low bytes behind. For example, CommandID field is a two-byte WORD type data with high byte Cmd_H in front and low byte Cmd_L behind.

2 Command Table

2.1 Command Table

	Command	Command code	Command packet		Reply	
			Len	Data	Len	Data
Mode	Next mode	0x0101	0		1	ModeID
	Select mode	0x0102	1	ModeID	1	ModeID
	Get mode	0x0103	0		1	ModeID
	Get device link	0x0104	0		1	LinkStatus
FS	Get folder sum	0x0201	0		4	FolderSum ValidFolderSum
	Get file sum	0x0202	0		2	FileSum
	Get folder info	0x0203	4	ParentFolderNum FolderNum	n	FolderNum ValidFolderNum StartFileNum IncFileCnt IncFolderCnt RecFileCnt RecFolderCnt ShortName LongFolderNameLen LongFolderName
	Get file info	0x0204	4	ParentFolderNum FileNum	n	FileNumInDisk FileNumInFolder FolderNum ShortName LongFileNameLen LongFileName
PLAY	Play	0x0301	0		0	
	Pause	0x0302	0		0	
	Stop	0x0303	0		0	
	Next	0x0304	0		0	
	Pre	0x0305	0		0	
	Play/Pause	0x0306	0		0	
	FF	0x0307	0		0	
	FB	0x0308	0		0	
	Stop FF/FB	0x0309	0		0	
	Seek play time	0x030A	4	Seconds	0	
	Next folder	0x030B	0		0	
	Pre folder	0x030C	0		0	
	Select song	0x030D	4	ValidFolderNum FileNum	1	Result
	Get play status	0x0320	0		12	ModeID PlayState ValidFolderNum FileNumInDisk FileNumInFolder CurPlayTime
	Get song info	0x0321	0		21	SongType ChannelNum

	Command	Command code	Command packet		Reply	
			Len	Data	Len	Data
						SamplesPerSecond BytesPerSecond TotalPlayTime HeaderLen IsVBR MpegVersion Layer
	Set repeat mode	0x0322	1	Repeat mode	0	
	Get repeat mode	0x0323	0		1	Repeat mode
	Enable folder	0x0324	0		0	
	Disable folder	0x0325	0		0	
	Get title	0x0330	0		n	TagType CharSet TitleLen: 0-30 Title
	Get artist	0x0331	0		n	TagType CharSet ArtistLen: 0-30 Artist
	Get album	0x0332	0		n	TagType CharSet AlbumLen: 0-30 Album
	Get comment	0x0333	0		n	TagType CharSet CommentLen: 0-30 Comment
	Get year	0x0334	0		n	TagType CharSet YearLen: 0-30 Year
AUDIO	VOL+	0x0401	0		0	
	VOL-	0x0402	0		0	
	Set vol	0x0403	1	Volume:0-32	0	
	Get vol	0x0404	0		1	Volume: 0-32
	Set EQ	0x0405	1	Eq: 0-10	0	
	Get EQ	0x0406	0		1	Eq:0-10
	Mute	0x0407	0		0	
	Unmute	0x0408	0		0	
	Set linein gain	0x0409	1	Gain: 0-63	0	
	Enable mic	0x040A	1	Gain: 0-3	0	
	Disable mic	0x040B	0		0	

3 System Mode

3.1 Next mode

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x01	CommandID
4	0x01	
5	0xFE	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x81	CommandID
4	0x01	
5	0xNN	ModelID: 0: IDLE 1: USB 2: SD 3: AUX IN 4: USB AUDIO
6	0xNN	CheckSum

3.2 Select mode

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x01	CommandID
4	0x02	
5	0xNN	Mode ID: 0: IDLE 1: USB 2: SD 3: LINE IN 4: USB AUDIO
6	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x81	CommandID
4	0x02	
5	0xNN	Mode ID: [1] 0: IDLE 1: USB 2: SD 3: LINE IN 4: USB AUDIO
6	0xNN	CheckSum

(1) Successfully switch the current mode to the designated mode; unsuccessfully hold in the current mode; ID number of current mode after back operation.

3.3 Get mode

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x01	CommandID
4	0x03	
5	0xFC	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x81	CommandID
4	0x03	
5	0xNN	Mode ID: 0: IDLE 1: USB 2: SD 3: AUX IN 3: USB AUDIO
6	0xNN	CheckSum

3.4 Get device link

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x01	CommandID
4	0x04	
5	0xFB	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x81	CommandID
4	0x04	
5	0xNN	Device link status: (0: no link, 1: link ok) Bit0: usb link status. Bit1: sd-card link status. Bit2: AuxIn link status. Bit3: PC link status.
6	0xNN	CheckSum

4 File System

4.1 Get folder sum

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x02	CommandID
4	0x01	
5	0xFD	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x04	PayloadLen
3	0x82	CommandID
4	0x01	
5	0xNN	FolderSum: Sum of all folders in the whole disk.
6	0xNN	
7	0xNN	ValidFolderSum: Sum of all valid folders in the whole disk.
8	0xNN	
9	0xNN	CheckSum

4.2 Get file sum

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x02	CommandID
4	0x02	
5	0xFC	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x02	PayloadLen
3	0x82	CommandID
4	0x02	
5	0xNN	FileSum
6	0xNN	
7	0xNN	CheckSum

4.3   Get folder info

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x04	PayloadLen
3	0x02	CommandID
4	0x03	
5	0xNN	ParentFolderNum: As 0, return to FolderNum folder information in the whole disk.
6	0xNN	Not as 0, return to FolderNum sub-folder information in ParentFolderNum folder in the whole disk.
7	0xNN	FolderNum
8	0xNN	
9	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0xNN	PayloadLen: n
3	0x82	CommandID
4	0x03	
5	0xNN	FolderNum: Number of folders when empty folders are not filtered.
6	0xNN	
7	0xNN	ValidFolderNum: Number of the folders after empty folders are filtered.
8	0xNN	
9	0xNN	StartFileNum: Number of the start song in the folder.
10	0xNN	
11	0xNN	IncFileCnt: Songs included (excluding sub-folders on the lower level).
12	0xNN	
13	0xNN	IncFolderCnt: Sub-folders included (excluding sub-folders on the lower level).
14	0xNN	
15	0xNN	RecFileCnt: Songs included (including sub-folders on the lower level).
16	0xNN	
17	0xNN	RecFolderCnt: Sub-folders included (including sub-folders on the lower level).
18	0xNN	
19	0xNN	ShortName: Name of short folder, totally 8 bytes.
...	0xNN	
26	0xNN	
27	0xNN	LongFolderNameLen: Length of a long file name, 0-64 bytes.
28	0xNN	LongFolderName: Unicode code, each character occupies two bytes with the higher byte in front and the lower byte behind.
…	0xNN	
n+3	0xNN	
n+4	0xNN	CheckSum

4.4 Get file info

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x04	PayloadLen
3	0x02	CommandID
4	0x04	
5	0xNN	ParentFolderNum: As 0, return to FileNum folder information in the whole disk.
6	0xNN	Not as 0, return to FileNum file information in ParentFolderNum folder in the whole disk.
7	0xNN	FileNum
8	0xNN	
9	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0xNN	PayloadLen: n
3	0x82	CommandID
4	0x04	
5	0xNN	FileNumInDisk: File number in the whole disk.
6	0xNN	
7	0xNN	FileNumInFolder: File number in the folder.
8	0xNN	
9	0xNN	FolderNum: Number of the folder.
10	0xNN	
11	0xNN	ShortName: Name of short file, totally 11 bytes and the last 3 as extension name.
...	0xNN	
21	0xNN	
22	0xNN	LongFileNameLen: Length of the long file name, 0-64 bytes.
23	0xNN	LongFileName: Unicode code, each character occupies two bytes with the higher byte in front and lower byte behind.
…	0xNN	
n+3	0xNN	
n+4	0xNN	CheckSum

5 Play Control

5.1 Play

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x01	
5	0xFC	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0x55	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x01	
5	0x7C	CheckSum

5.2 Pause

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x02	
5	0xFB	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x02	
5	0x7B	CheckSum

5.3 Stop

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x03	
5	0xFA	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x03	
5	0x7A	CheckSum

5.4 Next

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x04	
5	0xF9	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x04	
5	0x79	CheckSum

5.5 Pre

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x05	
5	0xF8	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x05	
5	0x78	CheckSum

5.6 Play/Pause

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x06	
5	0xF7	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x06	
5	0x77	CheckSum

5.7 FF

◆ Host command [2]:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x07	
5	0xF6	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x07	
5	0x76	CheckSum

5.8 FB

◆ Host command [2]:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x08	
5	0xF5	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x08	
5	0x75	CheckSum

(2) If it needs to enquire the current play time during fast forward/fast backward, it must be at the enquiry interval within 125ms.

5.9 Stop FF/FB

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x09	
5	0xF4	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x09	
5	0x74	CheckSum

5.10 Seek play time

Play by skipping to the designated time point of the current song.

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x04	PayloadLen
3	0x03	CommandID
4	0x0A	
5	0xNN	
6	0xNN	
7	0xNN	Seconds
8	0xNN	
9	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x0A	
5	0x73	CheckSum

5.11 Next folder

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x0B	
5	0xF2	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x0B	
5	0x72	CheckSum

5.12 Pre folder

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x0C	
5	0xF1	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x0C	
5	0x71	CheckSum

5.13 Select song

Select and play the designated song in the designated folder.

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x04	PayloadLen
3	0x03	CommandID
4	0x0D	
5	0xNN	ValidFolderNum: Number of valid folder.
6	0xNN	As 0, return to FolderNum folder information in the whole disk. Not as 0, return to FolderNum sub-folder information in ParentFolderNum folder in the whole disk.
7	0xNN	FileNum: File number.
8	0xNN	
9	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x83	CommandID
4	0x0D	
5	0xNN	Result: 0x00: success, 0x01: fail
6	0xNN	CheckSum

5.14 Get play status

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x20	
5	0xDD	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x0A	PayloadLen
3	0x83	CommandID
4	0x20	
5	0xNN	ModelD: 0: IDLE 1: USB 2: SD 3: USB AUDIO 4: USB CARD READER 5: USB RECORD (only use u-disk) 6: SD RECORD (only use sd-card)
6	0xNN	Play State: 0: SPIPLAY_STATE_IDLE 1: SPIPLAY_STATE_START 2: SPIPLAY_STATE_PLAY 3: SPIPLAY_STATE_PAUSE 4: SPIPLAY_STATE_MUTE 5: SPIPLAY_STATE_STOP
7	0xNN	ValidFolderNum: Valid folder number of the current song.
8	0xNN	
9	0xNN	FileNumInDisk: Number of the current song in the whole disk.
10	0xNN	
11	0xNN	FileNumInFolder: Number of the current song in the folder.
12	0xNN	
13	0xNN	CurPlayTime: Play location of the current song in second.
14	0xNN	
15	0xNN	
16	0xNN	
17	0xNN	CheckSum

5.15 Get song info

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x21	
5	0xDC	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x15	PayloadLen
3	0x83	CommandID
4	0x21	
5	0xNN	SongType: 0: UNKOWN 1: MP3 2: WMA 3: PCM_1CH 4: PCM_2CH 5: IMA_ADPCM
6	0xNN	ChannelNum: Number of channels.
7	0xNN	SamplesPerSecond: Sample rate.
8	0xNN	
9	0xNN	
10	0xNN	
11	0xNN	BytesPerSecond:Bytes per second.
12	0xNN	
13	0xNN	
14	0xNN	
15	0xNN	TotalPlayTime: Total play time in second.
16	0xNN	
17	0xNN	
18	0xNN	
19	0xNN	HeaderLen:Length of file header.
20	0xNN	
21	0xNN	
22	0xNN	
23	0xNN	IsVBR: VBR song or not.
24	0xNN	MpegVersion: (Only for MP3 songs). 0: MPEG_2_5 1: MPEG_2 2: MPEG_1 3: MPEG_UNKNOWN
25	0xNN	Layer: (Only for MP3 songs). 0: LAYER_UNKNOWN 1: LAYER_3 2: LAYER_2 3: LAYER_1
26	0xNN	CheckSum

5.16   Set repeat mode

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x03	CommandID
4	0x22	
5	0xNN	RepeatMode: 0: REPEAT_ALL 1: RANDOM 2: REPEAT_ONE 3: INTRO
6	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x22	
5	0x61	CheckSum

5.17 Get repeat mode

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x23	
5	0xDA	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x83	CommandID
4	0x23	
5	0xNN	RepeatMode: 0: REPEAT_ALL 1: RANDOM 2: REPEAT_ONE 3: INTRO
6	0xNN	CheckSum

5.18   Enable folder

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x24	
5	0xD9	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x24	
5	0x59	CheckSum

5.19 Disable folder

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x25	
5	0xD8	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x83	CommandID
4	0x25	
5	0x58	CheckSum

5.20 Get title

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x30	
5	0xCD	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0xNN	PayloadLen: n
3	0x83	CommandID
4	0x30	
5	0xNN	TagType: 0: NONE 1: ID3V1 2: ID3V2 3: WMA
6	0xNN	CharSet: 0: UNKOWN 1: ISO_8859_1 2: UTF_16 3: UTF_8
7	0xNN	TitleLen: Title length, 0-30 bytes.
8	0xNN	
…	0xNN	Title
n+3	0xNN	
n+4	0xNN	CheckSum

5.21 Get artist

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x31	
5	0xCC	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0xNN	PayloadLen: n
3	0x83	CommandID
4	0x31	
5	0xNN	TagType: 0: NONE 1: ID3V1 2: ID3V2 3: WMA
6	0xNN	CharSet: 0: UNKOWN 1: ISO_8859_1 2: UTF_16 3: UTF_8
7	0xNN	ArtistLen: Artist length, 0-30 bytes.
8	0xNN	
…	0xNN	Artist
n+3	0xNN	
n+4	0xNN	CheckSum

5.22 Get album

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x32	
5	0xCB	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0xNN	PayloadLen: n
3	0x83	CommandID
4	0x32	
5	0xNN	TagType: 0: NONE 1: ID3V1 2: ID3V2 3: WMA
6	0xNN	CharSet: 0: UNKOWN 1: ISO_8859_1 2: UTF_16 3: UTF_8
7	0xNN	AlbumLen: Album length, 0-30 bytes.
8	0xNN	
…	0xNN	Album
n+3	0xNN	
n+4	0xNN	CheckSum

5.23 Get comment

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x33	
5	0xCA	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0xNN	PayloadLen: n
3	0x83	CommandID
4	0x33	
5	0xNN	TagType: 0: NONE 1: ID3V1 2: ID3V2 3: WMA
6	0xNN	CharSet: 0: UNKOWN 1: ISO_8859_1 2: UTF_16 3: UTF_8
7	0xNN	CommentLen: Comment length, 0-30 bytes.
8	0xNN	
…	0xNN	Comment
n+3	0xNN	
n+4	0xNN	CheckSum

5.24 Get year

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x03	CommandID
4	0x34	
5	0xC9	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
1	0xNN	PayloadLen: n
2	0x83	CommandID
3	0x34	
4	0xNN	TagType: 0: NONE 1: ID3V1 2: ID3V2 3: WMA
5	0xNN	CharSet: 0: UNKOWN 1: ISO_8859_1 2: UTF_16 3: UTF_8
6	0xNN	YearLen: Year length, 0-30 bytes.
7	0xNN	Year
…	0xNN	
n+3	0xNN	
n+4	0xNN	CheckSum

6 Audio

6.1 Volume add

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x04	CommandID
4	0x01	
5	0xFB	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0x55	SOP
1	0x00	PayloadLen
2	0x84	CommandID
3	0x01	
4	0x7B	CheckSum

6.2 Volume sub

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x04	CommandID
4	0x02	
5	0xFA	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0x00	PayloadLen
2	0x84	CommandID
3	0x02	
4	0x7A	CheckSum

6.3 Set volume

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x04	CommandID
4	0x03	
5	0xNN	Volume: 0-32
6	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x84	CommandID
4	0x03	
5	0x79	CheckSum

6.4 Get volume

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x04	CommandID
4	0x04	
5	0xF8	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x84	CommandID
4	0x04	
5	0xNN	Volume: 0-32
6	0xNN	CheckSum

6.5 Set EQ

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x04	CommandID
4	0x05	
5	0xNN	EQ: 0: NORMAL 1: ROCK 2: POP 3: CLASSIC 4: JASS 5: BLUE 6: HALL 7: BASS 8: SOFT 9: COUNTRY 10: OPERA
6	0xNN	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x84	CommandID
4	0x05	
5	0x77	CheckSum

6.6   Get EQ

◆   Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x04	CommandID
4	0x06	
5	0xF6	CheckSum

◆   Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x84	CommandID
4	0x06	
5	0xNN	EQ: 0: NORMAL 1: ROCK 2: POP 3: CLASSIC 4: JASS 5: BLUE 6: HALL 7: BASS 8: SOFT 9: COUNTRY 10: OPERA
6	0xNN	CheckSum

6.7 Mute

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x04	CommandID
4	0x07	
5	0xF5	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x84	CommandID
4	0x07	
5	0x75	CheckSum

6.8 Unmute

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x04	CommandID
4	0x08	
5	0xF4	CheckSum

◆ Slave reply:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x00	PayloadLen
3	0x84	CommandID
4	0x08	
5	0x74	CheckSum

6.9   Set linein gain

◆ Host command:

Byte	Value	Comment
0	0x55	SOP
1	0xAA	SOP
2	0x01	PayloadLen
3	0x04	CommandID
4	0x0A	
5	0xNN	Gain: 0-63
6	0xNN	CheckSum

◆ Slave reply: