

LC300_LC300S RS-232/TCP Protocol Specification

Table of Contents

Table of Contents	2
History	4
1 Interface	5
1.1 Hardware	5
• RS-232	5
1.2 Connection	5
• RS-232	5
• TCP	5
1.3 Configuration	6
2 Control Protocol	6
2.1 Description	6
2.2 Format	6
2.3 Cmd & Example	7
2.3.1 Cmd Power	7
2.3.1.1 Set Power	7
2.3.1.2 Set Standby / Wake up	8
2.3.2 Cmd Record	8
2.3.2.1 Set Record Start	8
2.3.2.2 Set Record Pause	8
2.3.2.3 Set Record Resume Pause	9
2.3.2.4 Set Record Stop	9
2.3.2.5 Get Record State	9
2.3.3 Cmd Theme (Scene)	10
2.3.3.1 Set Layout	10
2.3.3.2 Set Background	10
2.3.3.3 Set Overlay	10
2.3.3.4 Set Scene	11
2.3.3.5 Set Video Source ID	11
2.3.3.6 Set Macro	12
2.3.3.7 Set Intermission & Live	12
2.3.3.8 Get Layout	12
2.3.3.9 Get Background	13
2.3.3.10 Get Overlay	13
2.3.3.11 Get Video Source Total Number	14
2.3.3.12 Get Current Video Source ID	14
2.3.4 Cmd Audio Vol	14
2.3.4.1 Set Audio Vol Input	14
2.3.4.2 Set Audio Vol Output	15
2.3.4.3 Get Audio Vol Input	15
2.3.4.4 Get Audio Vol Output	16
2.3.5 Cmd Audio Mute	17
2.3.5.1 Set Audio Mute Input	17
2.3.5.2 Set Audio Mute Output	17

	3
2.3.5.3 Get Audio Mute Input	18
2.3.5.4 Get Audio Mute Output	18
2.3.6 Cmd Audio Type	19
2.3.6.1 Set Audio Type Input	19
2.3.6.2 Get Audio Type Input	19
2.3.7 Cmd Audio XLR	20
2.3.7.1 Set Audio XLR Channel	20
2.3.7.2 Set Audio XLR Power	20
2.3.7.3 Get Audio XLR Channel	21
2.3.7.4 Get Audio XLR Power	21
2.3.8 Cmd Stream	21
2.3.8.1 Set Stream	21
2.3.8.2 Get Stream	22
2.3.9 Cmd Camera	22
2.3.9.1 Set Camera Preset	22
2.3.9.2 Set Camera Save Preset	23
2.3.9.3 Set Camera Move	23
2.3.9.4 Set Camera Zoom	24
2.3.9.5 Set Camera Tracking On/Off	25
2.3.10 Cmd Others	25
2.3.10.1 Set Snapshot	25
2.3.10.2 Set Bookmark	25
2.3.10.3 Set Backup to USB	26
2.3.10.4 Set Nas Mount	26
2.3.11 Cmd Annotation	27
2.3.11.1 Set Mouse Color	27
2.3.11.2 Set Button Enable	27
2.3.11.3 Set Mode Enter or Leave	28
3 Event Notification	28
3.1 Description	29
3.2 Format	29
3.3 Event Code and Parameters	29
3.3.1 Ntfy Media State	29
4 Note	30

History

Version	Date	FW ver.	Comment
1.0	2024/05/10	LCB028	LC300 1st release
2.0	2025/03/05	LCB103	Added LC300S
3.0	2026/06/18	LCB111	Add 1. Set Mouse Color 2. Set Button Enable 3. Set Mode Enter or Leave 4. Set Nas Mount

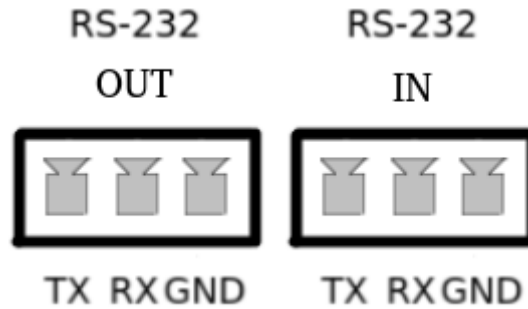
1 Interface

1.1 Hardware

- **RS-232**

Connect the RS-232 cable to the RS-232 upper port of the media station.

The pin definition of the RS-232 port :



GND : Ground

RX : Receive Data

TX : Transmit Data

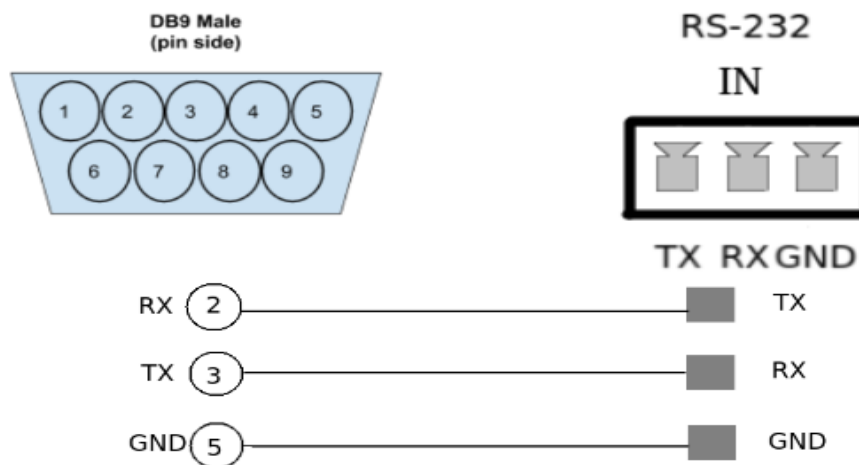
- **TCP**

Connect the CAT-5 (or greater) cable to WAN (or LAN) RJ-45 port of Media Station.

1.2 Connection

- **RS-232**

Connect the GND, RX, TX pins of the RS-232 port with external control equipment. The media station will be controlled by RS-232 protocol. For example, use the standard 9 pin DB9 serial cable as follows :



- **TCP**

Connect the Media Station's WAN port (or LAN port) and an external control equipment's ethernet port with a CAT-5 (or greater) cable.

1.3 Configuration

- RS-232
 - Baud rate : 9600
 - Data length : 8
 - Parity : none
 - Stop bit : 1
 - Flow control : none
- TCP
 - IP address : Media Station's WAN IP address
 - Port : 5080

2 Control Protocol

2.1 Description

- RS-232

The media station can be controlled from an external controller through a serial RS-232 connection. Control protocol is used for the communication between the media station and controller.

- TCP

When an external controller connects Media Station through networks connection, the Media Station can be controlled by command described in Control Protocol. If connection is not closed by client, connection will keep and get event notification until new connection established.

2.2 Format

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
Byte count	1	1	1	1	1	2	n	1

- **Header**
0x55
Protocol header.
- **Extended header**
0xF0
no checksum in format
- **Length**
Length is a byte counter from **address to Parameters** field.
Example:

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
Hex	0x55	0xF0	0x05	0x01	0x73	0x4C 0x4F	0x01	0x0D

Counter = address 1 byte+action 1 byte+command 2 bytes+parameter 1 byte

Total length = 5 bytes

- **Address**
Identification of device. Range is 0x01 ~ 0xFF.(0 is reserved)
*Address is reserved for future use. Don't care

- **Action**
Get: 0x67
"Query" operation for the media station.
Set: 0x73
"Set" operation for the media station.
ACK: 0x06

When the media station receives the protocol data correctly and executes the correspond command successfully. It replaces the action field with ACK in the received protocol format and return to controller.

NAK: 0x15

When the media station receives the protocol data correctly but there are something wrong while the media station executes the correspond command.It replaces the action field with NAK in the received protocol format and return to controller.

In addition, when the media station receives the invalid protocol data(ie. the protocol data that the media station can not understand). It returns NAK code and End code only.

- **Command**
Two bytes. Please refer to 2.3 Command Set and Parameters for more information.
- **Parameters**
Please refer to 2.3 Command Set and Parameters for more information.
- **End**
0x0D
Protocol end code

2.3 Cmd & Example

2.3.1 Cmd Power

2.3.1.1 Set Power

	ASCII	Hex	Description
Command code	PW	0x50 0x57	
Parameter 1	0 1	0x30 0x31	Power off Power on(NOT supported. Hardware limitation)

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x50 0x57	0x30	0x0D
ACK					0x06			
NAK					0x15			

2.3.1.2 Set Standby / Wake up

	ASCII	Hex	Description
Command code	SR	0x53 0x52	Set power mode to Standby or Wake up When get in Standby mode, only accept command including "Get state" and "Set Standby/Wakeup"
Parameter 1	1 2	0x31 0x32	Set power mode to Standby Wake up, active only power mode was Standby

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x53 0x52	0x31	0x0D
ACK					0x06			
NAK					0x15			

2.3.2 Cmd Record

2.3.2.1 Set Record Start

	ASCII	Hex	Description
Command code	RC	0x52 0x43	Start record process

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x73	0x52 0x43	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.2.2 Set Record Pause

	ASCII	Hex	Description
Command code	PS	0x50 0x53	Pause record process

Example

Name	Header	Extended Header	Length	Address	Action	Cmd	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x73	0x50 0x53	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.2.3 Set Record Resume Pause

	ASCII	Hex	Description
Command code	RP	0x52 0x50	Resume record pause process

Example

Name	Header	Extended Header	Length	Address	Action	Cmd	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x73	0x52 0x50	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.2.4 Set Record Stop

	ASCII	Hex	Description
Command code	SP	0x53 0x50	Stop record process

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x73	0x53 0x50	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.2.5 Get Record State

	ASCII	Hex	Description
Command code	ST	0x53 0x54	Get system state
Response Parameter 1	0	0x30	Uninitialize
	1	0x31	Ready
	2	0x32	Stopped
	3	0x33	Recording
	4	0x34	Paused
	5	0x35	Waiting
	6	0x36	Stopping
	7	0x37	Standby

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x04	0x01	0x67	0x53 0x54	None	0x0D
ACK			0x05		0x06		0x31	
NAK			0x04		0x15		None	

2.3.3 Cmd Theme (Scene)**2.3.3.1 Set Layout**

	ASCII	Hex	Description
Command code	LO	0x4C 0x4F	Set layout ID
Parameter 1		0x01~0x12	Layout ID

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x4C 0x4F	0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.3.2 Set Background

	ASCII	Hex	Description
Command code	BG	0x42 0x47	Set background ID
Parameter 1		0x00~0x09	Background ID 0x00: Background off

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x42 0x47	0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.3.3 Set Overlay

	ASCII	Hex	Description
--	-------	-----	-------------

Command code	OL	0x4F 0x4C	Set overlay ID
Parameter 1		0x00~0x1e	Overlay ID 0x00: Overlay off

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x4F 0x4C	0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.3.4 Set Scene

	ASCII	Hex	Description
Command code	TE	0x54 0x45	Set scene ID
Parameter 1		0x01~0x1e	Scene ID

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x54 0x45	0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.3.5 Set Video Source ID

	ASCII	Hex	Description
Command code	CH	0x43 0x48	Set channel source to specific channel
Parameter 1	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Parameter 2		0x01~0xFF	ID of channel source If parameter 2 greater than the ID which is maximum of stream source, will return success but no action on GUI

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x06	0x01	0x73	0x43 0x48	0x31 0x01	0x0D

ACK					0x06			
NAK					0x15			

2.3.3.6 Set Macro

	ASCII	Hex	Description
Command code	MC	0x4D 0x43	scene and camera preset control
Parameter 1	1	0x31	Macro 1
	2	0x32	Macro 2
	3	0x33	Macro 3
	4	0x34	Macro 4
	5	0x35	Macro 5
	6	0x36	Macro 6
	7	0x37	Macro 7
	8	0x38	Macro 8
	9	0x39	Macro 9

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x4D 0x43	0x31	0x0D
ACK					0x06			
NAK					0x15			

2.3.3.7 Set Intermission & Live

	ASCII	Hex	Description
Command code	IL	0x49 0x4c	Set theme as intermission or live mode
Parameter 1	0	0x30	Live mode
	1	0x31	Intermission mode

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x49 0x4c	0x31	0x0D
ACK					0x06			
NAK					0x15			

2.3.3.8 Get Layout

	ASCII	Hex	Description
Command code	LO	0x4C 0x4F	Get layout ID

Response Parameter 1		0x01~0x12	Layout ID
----------------------	--	-----------	-----------

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x04	0x01	0x67	0x4C 0x4F	None	0x0D
ACK			0x05		0x06		0x01	
NAK			0x04		0x15		None	

2.3.3.9 Get Background

	ASCII	Hex	Description
Command code	BG	0x42 0x47	Get background ID
Response Parameter 1		0x00~0x09	Background ID 0x00: Background off

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x04	0x01	0x67	0x42 0x47	None	0x0D
ACK			0x05		0x06		0x01	
NAK			0x04		0x15		None	

2.3.3.10 Get Overlay

	ASCII	Hex	Description
Command code	OL	0x4F 0x4C	Get overlay ID
Response Parameter 1		0x00~0x09	Overlay ID 0x00: Overlay off

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x04	0x01	0x67	0x4F 0x4C	None	0x0D
ACK			0x05		0x06		0x01	
NAK			0x04		0x15		None	

2.3.3.11 Get Video Source Total Number

	ASCII	Hex	Description
Command code	CH	0x43 0x48	Get channel source total number
Command/Response Parameter 1	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Response Parameter 2		0x01~0xFF	Number of channel source could be used in specific channel

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x05	0x01	0x67	0x43 0x48	0x31	0x0D
ACK			0x06		0x06		0x31 0x01	
NAK			0x05		0x15		0x31	

2.3.3.12 Get Current Video Source ID

	ASCII	Hex	Description
Command code	CU	0x43 0x55	Get channel source current index
Command/Response Parameter 1	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Response Parameter 2		0x01~0xFF	Index of channel source

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x05	0x01	0x67	0x43 0x55	0x31	0x0D
ACK			0x06		0x06		0x31 0x01	
NAK			0x05		0x15		0x31	

2.3.4 Cmd Audio Vol

2.3.4.1 Set Audio Vol Input

	ASCII	Hex	Description
--	-------	-----	-------------

Command code	AV	0x41 0x56	Set audio volume
Parameter 1	I	0x49	Set input volume
Parameter 2	1 2 3 4 5 6 7 8	0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38	Input 1 Input 2 Input 3 Input 4 Input 5 Input 6 Input 7 Input 8
Parameter 3		0x00~0x7D	Audio volume(0~125)

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x07	0x01	0x73	0x41 0x56	0x49 0x31 0x00	0x0D
ACK					0x06			
NAK					0x15			

2.3.4.2 Set Audio Vol Output

	ASCII	Hex	Description
Command code	AV	0x41 0x56	Set audio volume
Parameter 1	O	0x4F	Set output volume
Parameter 2	1 2 3 4	0x31 0x32 0x33 0x34	PGM Level Audio Output Level : PGM HDMI Audio Output Level : Multiview HDMI Audio Output Level : Line Out & XLR
Parameter 3		0x00~0x7D	Audio volume(0~125))

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x07	0x01	0x73	0x41 0x56	0x4F 0x31 0x00	0x0D
ACK					0x06			
NAK					0x15			

2.3.4.3 Get Audio Vol Input

	ASCII	Hex	Description
--	-------	-----	-------------

Command code	AV	0x41 0x56	Get audio volume
Command/Response Parameter 1	I	0x49	Set input volume
Command/Response Parameter 2	1 2 3 4 5 6 7 8	0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38	Input 1 Input 2 Input 3 Input 4 Input 5 Input 6 Input 7 Input 8
Response Parameter 3		0x00~0x7D	Audio volume(0~125)

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET			0x06		0x67		0x49 0x31	
ACK	0x55	0xF0	0x07	0x01	0x06	0x41 0x56	0x49 0x31 0x00	0x0D
NAK			0x06		0x15		0x49 0x31	

2.3.4.4 Get Audio Vol Output

	ASCII	Hex	Description
Command code	AV	0x41 0x56	Get audio volume
Command/Response Parameter 1	O	0x4F	Set output volume
Command/Response Parameter 2	1 2 3 4	0x31 0x32 0x33 0x34	PGM Level Audio Output Level : PGM HDMI Audio Output Level : Multiview HDMI Audio Output Level : Line Out & XLR
Response Parameter 3		0x00~0x7D	Audio volume(0~125)

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET			0x06		0x67		0x4F 0x31	
ACK	0x55	0xF0	0x07	0x01	0x06	0x41 0x56	0x4F 0x31 0x00	0x0D
NAK			0x06		0x15		0x4F 0x31	

2.3.5 Cmd Audio Mute

2.3.5.1 Set Audio Mute Input

	ASCII	Hex	Description
Command code	AM	0x41 0x4D	Set audio mute/unmute
Parameter 1	I	0x49	Set input volume
Parameter 2	1 2 3 4 5 6 7 8	0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38	Input 1 Input 2 Input 3 Input 4 Input 5 Input 6 Input 7 Input 8
Parameter 3	0 1	0x30 0x31	Audio unmute Audio mute

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x07	0x01	0x73	0x41 0x4D	0x49 0x31 0x30	0x0D
ACK					0x06			
NAK					0x15			

2.3.5.2 Set Audio Mute Output

	ASCII	Hex	Description
Command code	AM	0x41 0x4D	Set audio mute/unmute
Parameter 1	O	0x4F	Set output volume
Parameter 2	1 2 3 4	0x31 0x32 0x33 0x34	PGM Level Audio Output Level : PGM HDMI Audio Output Level : Multiview HDMI Audio Output Level : Line Out & XLR
Parameter 3	0 1	0x30 0x31	Audio unmute Audio mute

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x07	0x01	0x73	0x41 0x4D	0x4F 0x31 0x30	0x0D
ACK					0x06			
NAK					0x15			

2.3.5.3 Get Audio Mute Input

	ASCII	Hex	Description
Command code	AM	0x41 0x4D	Get audio mute/unmute
Command/Response Parameter 1	I	0x49	Set input volume
Command/Response Parameter 2	1 2 3 4 5 6 7 8	0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38	Input 1 Input 2 Input 3 Input 4 Input 5 Input 6 Input 7 Input 8
Response Parameter 3	0 1	0x30 0x31	Audio unmute Audio mute

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x06	0x01	0x67	0x41 0x4D	0x49 0x31	0x0D
ACK			0x07		0x06		0x49 0x31 0x30	
NAK			0x06		0x15		0x49 0x31	

2.3.5.4 Get Audio Mute Output

	ASCII	Hex	Description
Command code	AM	0x41 0x4D	Get audio mute/unmute
Command/Response Parameter 1	O	0x4F	Set output volume
Command/Response Parameter 2	1 2 3 4	0x31 0x32 0x33 0x34	PGM Level Audio Output Level : PGM HDMI Audio Output Level : Multiview HDMI Audio Output Level : Line Out & XLR
Response Parameter 3	0 1	0x30 0x31	Audio unmute Audio mute

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
------	--------	-----------------	--------	---------	--------	---------	------------	-----

GET			0x06		0x67		0x4F 0x31	
ACK	0x55	0xF0	0x07	0x01	0x06	0x41 0x4D	0x4F 0x31 0x30	0x0D
NAK			0x06		0x15		0x4F 0x31	

2.3.6 Cmd Audio Type

2.3.6.1 Set Audio Type Input

	ASCII	Hex	Description
Command code	AT	0x41 0x54	Set audio type
Parameter 1	I	0x49	Set input volume
Parameter 2	1 2 3 4 5 6 7 8	0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38	Input 1, parameter 3 only available 0x3a Input 2, parameter 3 only available 0x3a Input 3, parameter 3 only available 0x3a Input 4, parameter 3 only available 0x3a Input 5, parameter 3 only available 0x37 & 0x38 Input 6, parameter 3 only available 0x31 & 0x41 Input 7, not yet support Input 8, not yet support
Parameter 3	1 7 8 :	0x31 0x37 0x38 0x3a 0x41	Line in 1 XLR-Line XLR-Mic Follow Line in 2

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET					0x73			
ACK	0x55	0xF0	0x07	0x01	0x06	0x41 0x54	0x49 0x31 0x31	0x0D
NAK					0x15			

2.3.6.2 Get Audio Type Input

	ASCII	Hex	Description
Command code	AT	0x41 0x54	Get audio input type
Command/Response Parameter 1	I	0x49	Set input volume
Command/Response Parameter 2	1 2 3 4 5 6	0x31 0x32 0x33 0x34 0x35 0x36	Input 1 Input 2 Input 3 Input 4 Input 5 Input 6

	7 8	0x37 0x38	Input 7, not yet support Input 8, not yet support
Response Parameter 3	1 7 8 :	0x31 0x37 0x38 0x3a 0x41	Line in 1 XLR-Line XLR-Mic Follow Line in 2

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x06	0x01	0x67	0x41 0x54	0x49 0x31	0x0D
ACK			0x07		0x06		0x49 0x31 0x31	
NAK			0x06		0x15		0x49 0x31	

2.3.7 Cmd Audio XLR

2.3.7.1 Set Audio XLR Channel

	ASCII	Hex	Description
Command code	XC	0x58 0x43	Set audio XLR channel mode
Parameter 1	0 1	0x30 0x31	Stereo Mono

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x58 0x43	0x31	0x0D
ACK					0x06			
NAK					0x15			

2.3.7.2 Set Audio XLR Power

	ASCII	Hex	Description
Command code	XP	0x58 0x50	Set audio XLR power mode
Parameter 1	0 1	0x30 0x31	XLR power off XLR power on

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
------	--------	-----------------	--------	---------	--------	---------	------------	-----

SET	0x55	0xF0	0x05	0x01	0x73	0x58 0x50	0x30	0x0D
ACK					0x06			
NAK					0x15			

2.3.7.3 Get Audio XLR Channel

	ASCII	Hex	Description
Command code	XC	0x58 0x43	Get audio XLR channel mode
Response Parameter 1	0 1	0x30 0x31	Stereo Mono

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x67	0x58 0x43	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.7.4 Get Audio XLR Power

	ASCII	Hex	Description
Command code	XP	0x58 0x50	Get audio XLR power mode
Parameter 1	0 1	0x30 0x31	XLR power off XLR power on

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x67	0x58 0x50	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.8 Cmd Stream

2.3.8.1 Set Stream

	ASCII	Hex	Description
--	-------	-----	-------------

Command code	SC	0x53 0x43	Start/Stop stream , parameter 1 range based on web setting
Parameter 1	1 2 ...	0x31 0x32 ...	Stream 1 Stream 2 ...
Parameter 2		0x01 0x02	Stop Stream Start Stream

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x06	0x01	0x73	0x53 0x43	0x31 0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.8.2 Get Stream

	ASCII	Hex	Description
Command code	SC	0x53 0x43	Get Stream type, parameter 1 range based on web setting
Command/Response Parameter 1	1 2 ...	0x31 0x32 ...	Stream 1 Stream 2 ...
Response Parameter 2		0x00 0x01 0x02	Sync Ready (enable) Streaming (enable)

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
GET	0x55	0xF0	0x05	0x01	0x67	0x53 0x43	0x31	0x0D
ACK			0x06		0x06		0x31 0x01	
NAK			0x05		0x15		0x31	

2.3.9 Cmd Camera

2.3.9.1 Set Camera Preset

	ASCII	Hex	Description
--	-------	-----	-------------

Command code	CP	0x43 0x50	Set camera of channel goto preset
Parameter 1	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Parameter 2		0x01~0x09	Preset ID

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x06	0x01	0x73	0x43 0x50	0x31 0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.9.2 Set Camera Save Preset

	ASCII	Hex	Description
Command code	CS	0x43 0x53	Save preset of camera of channel by id
Parameter 1	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Parameter 2		0x01~0x09	Preset ID

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x06	0x01	0x73	0x43 0x53	0x31 0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.9.3 Set Camera Move

	ASCII	Hex	Description
--	-------	-----	-------------

Command code	CM	0x43 0x4D	Set camera move
Parameter 1	S U D L R	0x53 0x55 0x44 0x4C 0x52	Camera stop move Camera move up Camera move down Camera move left Camera move right
Parameter 2	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Parameter 3		0x01~0x18	The percentage of speed , this parameter in stop command is dispensable

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x07	0x01	0x73	0x43 0x4D	0x55 0x31 0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.9.4 Set Camera Zoom

	ASCII	Hex	Description
Command code	CZ	0x43 0x5A	Set camera zoom
Parameter 1	S I O	0x53 0x49 0x4F	Camera stop zoom Camera zoom in Camera zoom out
Parameter 2	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Parameter 3		0x01~0x07	The percentage of speed , this parameter in stop command is dispensable

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x07	0x01	0x73	0x43 0x5A	0x49 0x31 0x01	0x0D
ACK					0x06			
NAK					0x15			

2.3.9.5 Set Camera Tracking On/Off

	ASCII	Hex	Description
Command code	CR	0x43 0x52	Set camera of channel tracking on or off
Parameter 1	1 2 3 4	0x31 0x32 0x33 0x34	Channel 1 Channel 2 Channel 3 Channel 4
Parameter 2	0 1	0x30 0x31	ON OFF

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x06	0x01	0x73	0x43 0x52	0x31 0x30	0x0D
ACK					0x06			
NAK					0x15			

2.3.10 Cmd Others

2.3.10.1 Set Snapshot

	ASCII	Hex	Description
Command code	SS	0x53 0x53	Insert snapshot

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x73	0x53 0x53	None	0x0D
ACK					0x06			
NAK					0x15			

2.3.10.2 Set Bookmark

	ASCII	Hex	Description
Command code	BM	0x42 0x4D	Insert bookmark

Example

Name	Header	Extended Header	Length	Address	Action	Cmd	Parameters	End
SET	0x55	0xF0	0x04	0x01	0x73	0x42 0x4D	None	0x0D
ACK					0x06			

NAK					0x15			
-----	--	--	--	--	------	--	--	--

2.3.10.3 Set Backup to USB

	ASCII	Hex	Description
Command code	BU	0x42 0x55	Copy latest record folder to USB
Parameter 1	0 1	0x30 0x31	Start backup to USB Stop backup to USB

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x42 0x55	0x31	0x0D
ACK					0x06			
NAK					0x15			

2.3.10.4 Set Nas Mount

	ASCII	Hex	Description
Command code	NM	0x4e 0x4d	Set nas mount enable or disable
Parameter 1	0 1	0x30 0x31	Disable nas mount Enable nas mount

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x4e 0x4d	0x31	0x0D
ACK					0x06			
NAK					0x15			

2.3.11 Cmd Annotation

2.3.11.1 Set Mouse Color

	ASCII	Hex	Description
Command code	AC	0x42 0x55	Copy latest record folder to USB
Parameters	white red blue green	0x30 0x31	White:0x77 0x68 0x69 0x74 0x65 Red:0x72 0x65 0x64 Blue: 0x62 0x6C 0x75 0x65 Green: 0x67 0x72 0x65 0x65 0x6E
			*Parameter strings are in ascii format

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x09	0x01	0x73	0x41 0x43	0x77 0x68 0x69 0x74 0x65	0x0D
ACK					0x06			
NAK					0x15			

2.3.11.2 Set Button Enable

	ASCII	Hex	Description
Command code	AE	0x41 0x45	Set button enable or disable. Each parameter means one button enable or disable. If you want to configure multiple buttons, the parameter length should be equal to the number of buttons. A correct response means the command has been received, but it does not guarantee that the command has been correctly applied.
Parameter N	0 1 2	0x30 0x31 0x32	Disable button Enable button Hide button

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET	0x55	0xF0	0x05	0x01	0x73	0x41 0x45	0x31	0x0D

ACK					0x06			
NAK					0x15			

Additional information

Command for all button disable in Hex

55 f0 1c 01 73 41 45 30 0d

Command for all button enable in Hex

55 f0 1c 01 73 41 45 31 0d

2.3.11.2 Set Mode Enter or Leave

	ASCII	Hex	Description
Command code	AI	0x41 0x49	Enter or leave annotation mode
Parameters	0 1	0x30 0x31	Leave Enter

Example

Name	Header	Extended Header	Length	Address	Action	Command	Parameters	End
SET					0x73			
ACK	0x55	0xF0	0x05	0x01	0x06	0x41 0x40	0x30	0x0D
NAK					0x15			

3 Event Notification

3.1 Description

The event message sent to an external controller from media station for notifying system state change such as entering recording state while recording. The system state is defined same as the "State" command in Get Action Command List. Please refer to 4.3 Event Code and Parameters for more information.

3.2 Format

Name	Header	Event Code	Parameters	End
Byte count	1	2	n	1

- **Header**
0x23 (ASCII code: #)
Protocol header.
- **Event Code**
Two bytes event code. Please refer to 4.3 Event Code and Parameters for more information.
- **Parameters**
Please refer to 4.3 Event Code and Parameters for more information.
- **End**
0x0d
End code of event.

3.3 Event Code and Parameters

3.3.1 Ntfy Media State

	ASCII	Hex	Description
Event code	ST	0x53 0x54	System event
Event Parameter 1	0 1 2 3 4 5 6 7 8	0x30 0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38	Uninitialize Ready Stopped Recording Paused Waiting Stopping Standby Reboot, only available when state was standby

Example

Name	Header	Event Code	Parameters	End
NTFY	0x23	0x53 0x54	0x31	0x0D

4 Note

1. Commands are not accepted during media station boot-up.