

JVC Camcorder Web API Reference

Version 1.13

JVC KENWOOD Corporation

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THIS DOCUMENT DESCRIBES APPLICATION PROGRAMMING INTERFACE TO CONTROL JVC CAMERA RECORDERS VIA NETWORK, AND IT SHALL NOT BE USED FOR ANY OTHER PURPOSE.

Version	Outline
1.00	First release
1.01	<p>Added GY-HM660 to the command table</p> <p>Added "3.1.15 Set streaming server settings(RTP)" command only GY-HM660.</p> <p>Added PcrJitter parameter in "3.1.18 Get streaming server settings" and "3.1.19 Set streaming server settings(UDP)" commands.</p>
1.02	<p>Added "3.1.14 Set streaming server settings(RTP)" command for all cameras.</p> <p>Type "TCP" is effective in "GY-HM650" and "GY-HM660" in command with a streaming type parameter.</p> <p>Added "Variable Gain" parameter to "3.3.1 Get Camera Status" and "3.3.6 Set Web Event" for "GY-LS300".</p>
1.03	<p>Type "TCP" is effective in "GY-HM650" in command with a streaming type parameter.</p> <p>Type "UDPN" and "UDPL" are effective in "GY-HM660" in command with a streaming type parameter.</p>
1.04	<p>Supported KY-PZ100 newly.</p> <p>Added "3.1.3 Set streaming framerate" command for "KY-PZ100".</p> <p>Added "3.1.6 Available streaming framerate settings" command for "KY-PZ100".</p> <p>Added "3.4. PTZ Camera Support Command" for "KY-PZ100".</p> <p>Added "3.5. How to acquire JPEG data" for "KY-PZ100".</p>
1.05	<p>Added "3.1.3 Set streaming framerate" command for "GY-HM200", "GY-LS300", "GY-HM8x0", and "GY-HM660".</p> <p>Added "3.1.6 Available streaming framerate settings" command for "GY-HM200", "GY-LS300", "GY-HM8x0", and "GY-HM660".</p> <p>Added "3.5. How to acquire JPEG data" for "GY-HM200", "GY-LS300", "GY-HM8x0", and "GY-HM660".</p> <p>Added "3.6. How to use interruptible feedback function" for "GY-HM660".</p>
1.06	<p>Error correction. 2.1.1.</p> <p>Another client is able to connect while first client is using API interface.</p> <p>3.2.2 SessionRenewal command has become obsolete.</p> <p>Added "3.6. How to use interruptible feedback function" for "GY-HM8x0".</p> <p>Type "UDPN" and "UDPL" are effective in "GY-HM8x0" in command with a streaming type parameter of "3.1.7 Available streaming bitrate settings" command.</p>
1.07	<p>Error correction. 3.1.10 Get streaming server settings".</p> <p>Revised wrong parameters. They are effective to all models.</p> <p>Error correction. "3.3.6. Set Web Button Event".</p> <p>Some parameters are not supported on "KY-PZ100".</p> <p>Added "MasterBlack" parameters to "3.3.1 Get Camera Status" and "3.3.6 Set Web Event" for "GY-HM8x0", "GY-HM660", and "GY-HM200".</p> <p>Added "Detail" parameters to "3.3.1 Get Camera Status" and "3.3.6 Set Web Event" for "GY-HM8x0", "GY-HM660", and "GY-HM200".</p> <p>Added "3.4.3 Zoom switch operation" command for "GY-HM8x0", "GY-HM660", and "GY-HM200".</p> <p>Added "3.3.10 Seesaw switch operation" command for "GY-HM8x0", "GY-HM660", and "GY-HM200".</p> <p>Added Gain event "Up1"/"Down1" parameters to "3.3.6 Set Web Event" for "GY-HM8x0", "GY-HM660", and "GY-HM200".</p> <p>Added target models "GY-HM8x0", "GY-HM660", and "GY-HM200" to MenuStatus of "3.3.1 Get Camera Status"</p> <p>Added "3.7. How to control tally system" description for "GY-HM8x0", "GY-HM660", "GY-HM200", and "KY-PZ100".</p> <p>Changed "3.3.5. Tally lamp control" description correspond to it.</p>
1.08	<p>Added "Serial" parameter to "3.2.1. Get System Information" for "GY-HM660", "GY-HM8x0", "GY-HM200", and "KY-PZ100".</p> <p>Added "3.2.6 Get NTP Status", "3.2.7 Set NTP Server", and "3.2.8 Set NTP settings" Commands for "GY-HM660", "GY-HM8x0", "GY-HM200", and "KY-PZ100".</p> <p>Supported GY-HM25x newly.</p> <p>Error correction.</p> <p>Added "Whb" "Status" parameter to "3.3.1. Get camera status".</p> <p>Changed "3.3.1. Get camera status". Parameter ("Enable" "Streaming" "On/Off") is not effective in "GY-HM200" and "GY-HM25x".</p>
1.09	<p>Added "Serial" parameter to "3.2.1. Get System Information" for "GY-HM650".</p> <p>Added "3.5. How to acquire JPEG data" for "GY-HM650".</p> <p>Supported GY-HC900 newly.</p>
1.10	<p>for "GY-HC900" updates as below.</p> <p>Added some resolution and bitrate parameters to "3.1. Streaming Setting Command".</p> <p>Added "Smpte2022Fec" to "3.1.10. Get streaming server settings" and "3.1.16. Set streaming server settings(RTP)".</p> <p>Added "AdaptiveBitrate" to "3.1.10. Get streaming server settings" and "3.1.14. Set streaming server settings(ZIXI)".</p> <p>Added "3.8. Return over IP Command" for "GY-HC900".</p> <p>Added "Resolution" and "FrameRate" to "3.8.3. GetReturnOverIpServerSettings" and "3.8.4. SetReturnOverIpServerSettings(RTSP/Zixi)".</p> <p>Added "3.8.3.1. AvailableTypeOfReturnOverIP" and "3.8.3.2. AvailableFrameRateOfReturnOverIP" commands.</p> <p>Added "IrisBar" parameter to "3.3.7. Set Web Slider Event".</p> <p>Added "Position(Iris)" parameter "3.3.1. Get camera status".</p> <p>Added "PCR Mode" to "3.1.10. Get streaming server settings" and "3.1.16. Set streaming server settings(UDP/Zixi/RTP)".</p> <p>Added "Overlay" and "Tagging" parameter to 3.2.1. Get System Information.</p> <p>Error correction. GY-HC900 does not support "Iris PushAuto" of "3.3.6 Set Web Event".</p>
1.11	<p>Supported GY-HC5x0 newly.</p> <p>Added "3.2.6. Get NTP Status" and "3.2.7. Set NTP Server" for "GY-HC5x0".</p> <p>Added SRT parameter for "GY-HC5x0".</p> <p>"3.2.1. Get System Information", "3.1.7. Available streaming bitrate settings", "3.1.10. Get streaming server settings", and "3.1.18. Set streaming server settings(SRT)".</p> <p>Added "PCR Mode" parameter to "3.1.10. Get streaming server settings" and "3.1.16. Set streaming server settings(UDP/Zixi/RTP)" for GY-HC5x0.</p> <p>Added "RTMPS" protocol for "GY-HC5x0".</p> <p>"3.1.7. Available streaming bitrate settings" and "3.1.10. Get streaming server settings" and "3.1.16. Set streaming server settings(RTMPS)".</p>
1.12	<p>Added "3.2.6. Get NTP Status" and "3.2.7. Set NTP Server" for "GY-HC900".</p> <p>Added SRT parameter for "GY-HC900".</p> <p>"3.2.1. Get System Information", "3.1.7. Available streaming bitrate settings", "3.1.10. Get streaming server settings", and "3.1.18. Set streaming server settings(SRT)".</p> <p>Added "3.8. Return over IP Command" 30p/25p parameter for "GY-HC5x0".</p> <p>Added "IrisBar" parameter to "3.3.7. Set Web Slider Event" for "GY-HC5x0".</p> <p>Added "Position(Iris)" parameter "3.3.1. Get camera status" for "GY-HC5x0".</p> <p>Added "KA_EN200" parameter to 3.2.1. Get System Information for "GY-HC5x0" and "GY-HC900".</p> <p>Added "422_60p" and "422_50p" parameters to each available streaming settings for "GY-HC5x0" and "GY-HC900" when "KA-EN200" is enabled.</p> <p>"3.1.1. Get streaming settings" and other available settings.</p> <p>Added "EXT slot information" to "3.3.1. Get camera status" for "GY-HC900".</p>

1.13	<p>Added "RTMPS" protocol for "GY-HM250" and "KY-PZ100". "3.1.7. Available streaming bitrate settings", "3.1.10. Get streaming server settings" and "3.1.16. Set streaming server settings(RTMPS)".</p>
	<p>Added "3.4.6. Get Pan & Tilt Positions" command for "KY-PZ100".</p>
	<p>Added "Username" parameter to "3.1.13. Set streaming server settings(RTSP/RTP)" for "GY-HC5x0" and "GY-HC900".</p>

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1. Outline

1.1. Specification

This API specification describes commands to control JVC cameras via network.

Following commands are available.

Setting command	- Configure camera settings
System command	- Perform the information of the camera, the update of the session , the memory of the value
Camera control command	- Control camera
PTZ camera control command	- Control PTZ camera
JPEG data acquisition command	- Acquire HPEG data.
Interruptible feedback settings	- Configure IFB settings.
Studio tally control command	- Control studio tally display.
Return over IP command	- Return over IP Settings and Control.

* Some API commands may be restricted by camera model and software version.

* Supported API functions are depends on the API version of the camera.

Version information can be obtained with the command 'Get System Information'.

Supported camera model and firmware version.

API Version	Firmware Version									
	GY-HM650	GY-HM660	GY-HM8x0	GY-HM200	GY-HM25x	GY-LS300	KY-PZ100	GY-HC900	GY-HC5x0	
1.00	V0404	-	V0203-0060	V0203-0136	-	V0203-0132	-	-	-	
1.01	-	V0100-0049	-	-	-	-	-	-	-	
1.02	-	-	V0300-0067	V0300-0150	-	V0300-0143	-	-	-	
1.03	-	V0102-0067	-	-	-	-	-	-	-	
1.04	-	-	-	-	-	-	V0100-0076	-	-	
1.05	-	V0105-0086	V0301-0076	V0305-0182	-	V0302-0151	V0101-0093	-	-	
1.06	-	-	V0303-0084	-	-	-	-	-	-	
1.07	-	V0110-0111	V0305-0090	V0309-0213	-	-	V0102-0103	-	-	
1.08	-	V0112-0136	V0307-0098	V0313-0230	V0100-0007	-	V0104-0118	-	-	
1.09	V0412	-	-	-	-	-	-	V0101-0121	-	
1.10	-	-	-	-	-	-	-	V0230-0217	V0102-0145	
1.11	-	-	-	-	-	-	-	-	V0110-0148	
1.12	-	-	-	-	-	-	-	0300-0250	V0120-0166	
1.13	-	-	-	-	V0106-0022	-	V0200-0128	-	-	

* This list shows a API version number which is returned by each firmware.

Newest API document supports most recent firmwares on all models.

2. Interface

Support HTTP protocol

API command request/response uses HTTP protocol.

A request uses a port number 80 with default setting. It may change if the web port setting on the camera menu is modified.

Requests and response data are described with JSON format in HTTP message body.

2.1. Authentication

Digest authentication

Username/password authorization is needed on first access to the camera.

It returns 'Session ID' to the client after authorization.

The client can access without authorization by using this 'Session ID'.

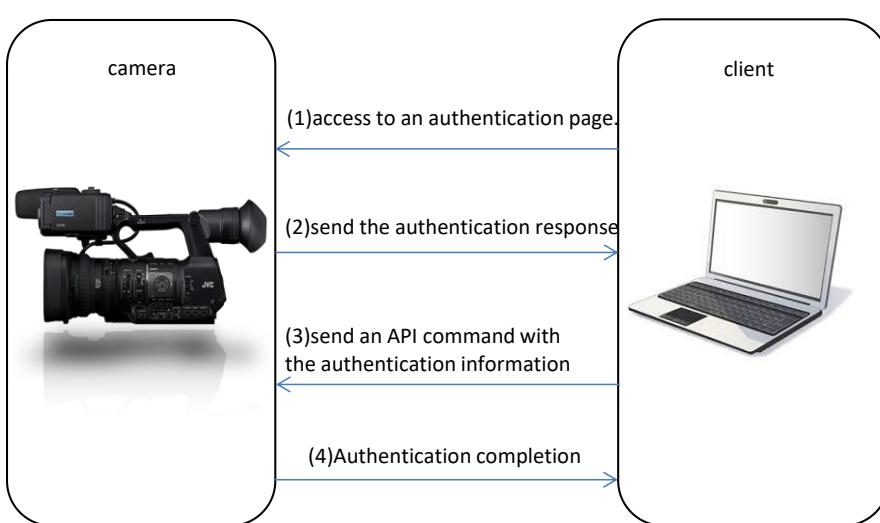
'Session ID' will expire within 30 seconds.

It has to be extended using 'SessionRenewal' command.

Authentication process has to be performed to obtain another 'Session ID' after expiration.

Please refer to RFC2617 for more information.

Procedure



(1)Access to an authentication page of a server from the client.

Example

```
GET /api.php HTTP/1.1\r\n
Host: 192.168.0.134\r\n
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:27.0) Gecko/20100101 Firefox/27.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: ja,en-us;q=0.7,en;q=0.3\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
\r\n
```

(2)The response for authentication is returned to a client.

Example

```
HTTP/1.1 401 Unauthorized\r\n
WWW-Authenticate: Digest realm="GY-HM650",
    nonce="7a63056b0a608017c405707e682b9adb", qop="auth"\r\n
Content-Type: text/html\r\n
Content-Length: 1458\r\n
Date: Tue, 03 Mar 2015 11:35:13 GMT\r\n
Server: Camera\r\n
\r\n
```

(3)The client re-access with the authentication information(user name and password) to the authentication page

Example

```
GET /api.php HTTP/1.1\r\n
Host: 192.168.0.134\r\n
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:27.0) Gecko/20100101 Firefox/27.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: ja,en-us;q=0.7,en;q=0.3\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
Authorization: Digest username="prohd", realm="GY-HM650",
    nonce="7a63056b0a608017c405707e682b9adb", uri="/api.php",
    response="0f4d23f739a0e9fa3b78b826b33eda18", qop=auth, nc=00000001,
    cnonce="ee16206547e4dd0e"\r\n
\r\n
```

(4)Session ID is returned form the camera.

Example

```
HTTP/1.1 302 Found\r\n
Status: 302 Moved Temporarily\r\n
Expires: Thu, 19 Nov 1981 08:52:00 GMT\r\n
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0\r\n
Pragma: no-cache\r\n
Set-Cookie: SessionID=10ffa8dc1bb1cf5f9c252b7b8a20738\r\n
Content-type: text/html; charset=UTF-8\r\n
Transfer-Encoding: chunked\r\n
Date: Tue, 03 Mar 2015 11:35:23 GMT\r\n
Server: Camera\r\n
\r\n
```

return to (2) in authentication failure.

*—Another client cannot connect while first client is using API interface.

2.2. Request form

Hypertext Transfer Protocol

Example

```
POST /cgi-bin/api.cgi HTTP/1.1\r\n
Host: 192.168.0.134\r\n
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:27.0) Gecko/20100101 Firefox/27.0\r\n
Accept: application/json, text/javascript, */*; q=0.01\r\n
Accept-Language: ja,en-us;q=0.7,en;q=0.3\r\n
Accept-Encoding: gzip, deflate\r\n
Content-Type: application/x-www-form-urlencoded; charset=UTF-8\r\n
X-Requested-With: XMLHttpRequest\r\n
Referer: http://192.168.0.134/api.php\r\n
Content-Length: 86\r\n
Authorization: Digest username="prohd", realm="GY-HM650",
    nonce="7a63056b0a608017c405707e682b9adb", uri="/cgi-bin/api.cgi",
    response="c412878c40aa4d4943af678c2ba070b1", qop=auth, nc=0000001a,
    cnonce="3c706c583d858603"\r\n
Connection: keep-alive\r\n
Pragma: no-cache\r\n
Cache-Control: no-cache\r\n
\r\n
```

HTML Form URL Encoded: application/x-www-form-urlencoded

Camera cannot accept any space character or newline within command string.

Key	Style	Value
Request		
Command	String	(Command name)
SessionID	String	(Session ID in cookie.)
Params		(You can omit this field if there is no parameter.)
***	***	

Example

```
{  
  "Request": {  
    "Command": "GetSystemInfo",  
    "SessionID": "10ffa8dc1bb1cf5f9c252b7b8a20738"  
  }  
}
```

2.3. Response form

Hypertext Transfer Protocol

Example

```
HTTP/1.1 200 OK\r\n  
Content-type: application/json\r\n  
Pragma: no-cache\r\n  
Cache-Control: no-cache\r\n  
Expires: Thu, 01 Dec 1994 16:00:00 GMT\r\n  
Content-Length: 105\r\n  
Date: Tue, 03 Mar 2015 11:35:30 GMT\r\n  
Server: Camerar\r\n\r\n
```

JavaScript Object Notation: application/json

Actual response from camera does not include any space character or newline.

Key	Style	Value
Response		
Requested	String	(Command name)
Result	String	Result of command processing Success / DisableError(Timeout) / RequestedError(Illegal parameter error) / FormatError(Illegal request error) / CommandError(Illegal command error) / SessionError(Authentication error) / DualExeError(Duplicate command)
Data		(You can omit this field if there is no parameter.)
***	***	

Example

```
{  
  "Response": {  
    "Requested": "GetSystemInfo",  
    "Result": "Success",  
    "Data": {  
      "Model": "HM650",  
      "Destination": "EU",  
      "ApiVersion": "0.13.3"  
    }  
  }  
}
```

3. Command

3.1. Streaming Setting Command

When you change a part of these parameters, you should get all parameters first, then modify and store them again.
Setting commands should be used only when settings need to be changed, otherwise it causes performance degradation.
Zixi and SRT streaming modes are mutually exclusive on GY-HC5x0 and GY-HC900.
Only "Zixi" or "Srt" parameter is effective according to the streaming mode.
Current mode can be checked using GetSystemInfo response.

3.1.1. Get streaming settings

Get the streaming setting

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetStreamingSettings	Yes								
SessionID	String	(Session ID in cookie.)	Yes								

Example

```
{  
  "Request": {  
    "Command": "GetStreamingSettings",  
    "SessionID": "7425fbc58ee4d15dd4c1f5ace4299a3"  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetStreamingSettings	Yes								
Result	String	(Result of command processing.)	Yes								
Data											
Resolution	String	"1920x1080" "1440x1080" "1280x720" "720x480" "720x576" "640x360" "480x270"	Yes								
Framerate	String	"60p" / "50p" / "60i" / "50i" / "30p" / "25p" / "422_10bit_60p" / "422_10bit_50p"	Yes								
Bitrate	String	"0.2M" "0.3M" "0.8M" "1.5M"	Yes	No							

			"2.5M"	Yes	No	No						
			"3.0M"	Yes								
			"5.0M"	Yes								
			"8.0M"	Yes								
			"10M"	Yes	No	No						
			"12M"	Yes								
			"16M"	No	No	No	No	No	No	Yes	Yes	Yes
			"20M"	No	No	No	No	No	No	Yes	Yes	Yes
			"24M"	No	Yes	Yes						

* Framerate "422_10bit_60p" and "422_10bit_50p" are effective only if optional adaptor "KA-EN200" is attached on 'GY-HC900' and 'GY-HC5x0'.

Example

```
{
  "Response": {
    "Requested": "GetStreamingSettings",
    "Result": "Success",
    "Data": {
      "Resolution": "1920x1080",
      "Framerate": "60i",
      "Bitrate": "3.0M"
    }
  }
}
```

3.1.2. Set streaming resolution

Set streaming resolution

Camcorder automatically reboots with this command on HM650 , HM660 , and HM8x0.

Current value can be obtained with the 'AvailableStreamingResolutionSettings' command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingResolution	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params											
Resolution	String	"1920x1080" "1440x1080" "1280x720" "720x480" "720x576" "640x360" "480x270"	Yes No Yes Yes Yes No Yes	Yes No Yes Yes Yes Yes No	Yes No Yes Yes Yes Yes Yes	Yes No Yes Yes Yes Yes Yes	Yes No Yes Yes Yes Yes Yes	Yes No Yes Yes Yes Yes Yes	Yes No Yes Yes Yes Yes Yes	Yes No Yes Yes Yes Yes Yes	

* Framerate is fixed by resolution.(HM650/HM660/HM8x0/HM200/HM25x/LS300)

Example

```
{
  "Request": {
    "Command": "SetStreamingResolution",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Resolution": "1920x1080"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingResolution	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetStreamingResolution",
    "Result": "Success"
  }
}
```

3.1.3. Set streaming framerate

Set streaming framerate.

Current value can be obtained with the 'AvailableStreamingFramerateSettings' command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingFramerate	No	Yes							
SessionID	String	(Session ID in cookie.)	No	Yes							
Params											
Framerate	String	"60p" / "50p" / "60i" / "50i" / "30p" / "25p" / "422_10bit_60p" / "422_10bit_50p"	No	Yes							
			No	Yes	Yes						

* Framerate "422_10bit_60p" and "422_10bit_50p" are effective only if optional adaptor "KA-EN200" is attached on 'GY-HC900' and 'GY-HC5x0'.

Example

```
{
  "Request": {
    "Command": "SetStreamingFramerate",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Framerate": "60p"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingFramerate	No	Yes							
Result	String	(Result of command processing.)	No	Yes							

Example

```
{
  "Response": {
    "Requested": "SetStreamingFramerate",
    "Result": "Success"
  }
}
```

3.1.4. Set streaming bitrate

Set streaming bitrate

Current value can be obtained with the 'AvailableStreamingBitrateSettings' command

This command does not reboot the camcorder unlike 'Set streaming resolution' command

Request

Example

```
{  
  "Request": {  
    "Command": "SetStreamingBitrate",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "Bitrate": "3.0M"  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingBitrate	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{  
  "Response": {  
    "Requested": "SetStreamingBitrate",  
    "Result": "Success"  
  }  
}
```

3.1.5. Available streaming resolution settings

Get available streaming resolution settings

Settable values are depend on the recording resolution setting of the camcorder.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	AvailableStreamingResolutionSettings	Yes								
SessionID	String	(Session ID in cookie.)	Yes								

Example

```
{
  "Request": {
    "Command": "AvailableStreamingResolutionSettings",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	AvailableStreamingResolutionSettings	Yes								
Result	String	(Result of command processing.)	Yes								
Data											
AvailableResolution			Yes								
1920x1080	Integer	0 : unselectable , 1 : selectable	Yes								
1440x1080	Integer	0 : unselectable , 1 : selectable	No								
1280x720	Integer	0 : unselectable , 1 : selectable	Yes								
720x480	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
720x576	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
640x360	Integer	0 : unselectable , 1 : selectable	No	Yes							
480x270	Integer	0 : unselectable , 1 : selectable	Yes	No							

* Resolution "640x360" is effective in 'GY-HM200', 'GY-HM25x', 'GY-LS300', 'GY-HM660', and 'GY-HM8x0'.

* Resolution "480x270" is effective in 'GY-HM650'.

Example

```
{  
  "Response": {  
    "Requested": "AvailableStreamingResolutionSettings",  
    "Result": "Success",  
    "Data": {  
      "AvailableResolution": {  
        "1920x1080": 1,  
        "1440x1080": 0,  
        "1280x720": 0,  
        "720x480": 0,  
        "720x576": 0,  
        "640x360": 0,  
        "480x270": 0  
      }  
    }  
  }  
}
```

3.1.6. Available streaming framerate settings

Get available streaming framerate settings.

Settable values are depend on the recording resolution setting on the camcorder.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	AvailableStreamingFramerateSettings	No	Yes							
SessionID	String	(Session ID in cookie.)	No	Yes							
Params											
Resolution	String	"1920x1080" "1280x720" "720x480" "720x576" "640x360"	No	Yes							

Example

```
{
  "Request": {
    "Command": "AvailableStreamingFramerateSettings",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3"
    "Params": {
      "Resolution": "1920x1080"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	AvailableStreamingFramerateSettings	No	Yes							
Result	String	(Result of command processing.)	No	Yes							
Data											
Resolution	String	"1920x1080" "1280x720" "720x480" "720x576" "640x360"	No	Yes							
AvailableFramerate											
60p	Integer	0 : unselectable , 1 : selectable	No	Yes							
60i	Integer	0 : unselectable , 1 : selectable	No	Yes							
30p	Integer	0 : unselectable , 1 : selectable	No	Yes							
50p	Integer	0 : unselectable , 1 : selectable	No	Yes							
50i	Integer	0 : unselectable , 1 : selectable	No	Yes							
25p	Integer	0 : unselectable , 1 : selectable	No	Yes							
422_10bit_60p	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						
422_10bit_50p	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						

* Framerate "422_10bit_60p" and "422_10bit_50p" are effective only if optional adaptor "KA-EN200" is attached on 'GY-HC900' and 'GY-HC5x0'.

Example

```
{  
  "Response": {  
    "Requested": "AvailableStreamingFramerateSettings",  
    "Result": "Success",  
    "Data": {  
      "Resolution": "1920x1080",  
      "AvailableFramerate": {  
        "60p": 1,  
        "60i": 0,  
        "30p": 0,  
        "50p": 0,  
        "50i": 0,  
        "25p": 0  
        "422_10bit_60p": 0,  
        "422_10bit_50p": 0  
      }  
    }  
  }  
}
```

3.1.7. Available streaming bitrate settings

Get available streaming bitrate settings

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	AvailableStreamingBitrateSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params											
Type	String	"UDP" / "UDPN" (PCR Jitter is Normal) / "UDPL"(PCR Jitter is Low) / "TCP" / "RTSP" / "ZIXIM"(Zixi Medium/Minimum/High Latency) / "ZIXIL"(Zixi Low Latency) / "RTMP" / "RTMPS" / "Facebook" / "SRT"	Yes No No Yes Yes Yes Yes Yes Yes No No No	Yes Yes Yes No No Yes Yes Yes Yes No No No	Yes Yes Yes No No Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes No No No Yes Yes Yes Yes Yes Yes	Yes Yes Yes No No No Yes Yes Yes Yes Yes Yes	Yes Yes Yes No No No Yes Yes Yes Yes Yes Yes	Yes Yes Yes No No No Yes Yes Yes Yes Yes Yes	Yes Yes Yes No No No Yes Yes Yes Yes Yes Yes	Yes Yes Yes No No No Yes Yes Yes Yes Yes Yes
Resolution	String	"1920x1080" / "1440x1080" / "1280x720" / "720x480" / "720x576" / "640x360" / "480x270"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Framerate	String	"60p" / "50p" / "60i" / "50i" / "30p" / "25p" / "422_10bit_60p" / "422_10bit_50p"	No	No	No	No	No	No	Yes	Yes	Yes

* High Latency of Type is effective in 'GY-HM660' , 'GY-HM200' , 'GY-HM25x' , 'GY-LS300' , 'GY-HM8x0' , and 'KY-PZ100'.

* Resolution "640x360" is effective in 'GY-HM200' , 'GY-HM25x' , 'GY-LS300' , 'GY-HM660' , 'GY-HM8x0' , and 'KY-PZ100'.

* Resolution "480x270" is effective in 'GY-HM650'.

* Resolution "720x480" and "720x576" are not effective in 'GY-HC5x0' , 'GY-HC900'

* Type "TCP" is effective in 'GY-HM650' , 'GY-HC5x0' , and 'GY-HC900'.

* Type "UDPN" and "UDPL" are effective in 'GY-HM660' , and 'GY-HM8x0'.

* Type "Facebook" is effective in 'GY-HM250'.

* Type "RTMPS" is effective in 'GY-HC5x0' , 'GY-HM25x' , and 'KY-PZ100' .

* Framerate "422_10bit_60p" and "422_10bit_50p" are effective only if optional adaptor "KA-EN200" is attached on 'GY-HC900' and 'GY-HC5x0'.

Example

```
{
  "Request": {
    "Command": "AvailableStreamingBitrateSettings",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Type": "TCP",
      "Resolution": "1920x1080",
      "Framerate": "60p"
    }
  }
}
```

* High Latency of Type is effective in 'GY-HM660', 'GY-HM200', 'GY-HM25x', 'GY-LS300', 'GY-HM8x0', and 'KY-PZ100'.

* Resolution "640x360" is effective in 'GY-HM200', 'GY-HM25x', 'GY-LS300', 'GY-HM660', 'GY-HM8x0', and 'KY-PZ100'.

* Resolution "480x270" is effective in 'GY-HM650'.

* Resolution "720x480" and "720x576" are not effective in 'GY-HC5x0', 'GY-HC900'

* Type "TCP" is effective in 'GY-HM650' , 'GY-HC5x0' , and 'GY-HC900'.

* Type "UDPN" and "UDPL" are effective in 'GY-HM660'.

* Type "Facebook" is effective in 'GY-HM250'.

* Type "RTMPS" is effective in 'GY-HC5x0' , 'GY-HM25x' , and 'KY-PZ100' .

* Framerate "422 10bit 60p" and "422 10bit 50p" are effective only if optional adaptor "KA-1" is used.

¹ See also the discussion of the relationship between the two concepts in the introduction to this volume.

Example

```
{  
  "Response": {  
    "Requested": "AvailableStreamingBitrateSettings",  
    "Result": "Success",  
    "Data": {  
      "Type": "TCP",  
      "Resolution": "1920x1080",  
      "Framerate": "60p",  
      "AvailableBitrate": {  
        "0.2M": 0,  
        "0.3M": 0,  
        "0.8M": 0,  
        "1.5M": 0,  
        "2.5M": 0,  
        "3.0M": 1,  
        "5.0M": 1,  
        "8.0M": 1,  
        "10M": 0,  
        "12M": 1,  
        "16M": 1,  
        "20M": 1,  
        "24M": 1  
      }  
    }  
  }  
}
```

3.1.8. Get current streaming server number

Get current streaming server ID.

There are four settings of streaming server .

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetCurrentStreamingServerID	Yes								
SessionID	String	(Session ID in cookie.)	Yes								

Example

```
{  
  "Request": {  
    "Command" : "GetCurrentStreamingServerID",  
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetCurrentStreamingServerID	Yes								
Result	String	(Result of command processing.)	Yes								
Data											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								

Example

```
{  
  "Response": {  
    "Requested" : "GetCurrentStreamingServerID",  
    "Result" : "Success",  
    "Data": {  
      "ID" : 3  
    }  
  }  
}
```

3.1.9. Set current streaming server number

Set current streaming server ID.

Choose the server ID to use in streaming.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetCurrentStreamingServerID	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								

Example

```
{  
  "Request": {  
    "Command" : "SetCurrentStreamingServerID",  
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params" : {  
      "ID" : 3  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetCurrentStreamingServerID	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{  
  "Response": {  
    "Requested" : "SetCurrentStreamingServerID",  
    "Result" : "Success"  
  }  
}
```

3.1.10. Get streaming server settings

Get streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetStreamingServerSettings	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								

Example

```
{  
  "Request": {  
    "Command" : "GetStreamingServerSettings",  
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params" : {  
      "ID" : 1  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetStreamingServerSettings	Yes								
Result	String	(Result of command processing.)	Yes								
Data											
Alias	String	(Another name of server)	Yes								
Type	String	"UDP" /	Yes								
		"TCP" /	Yes	No	No	No	No	No	No	Yes	Yes
		"RTSP" /	Yes								
		"ZIXI" /	Yes								
		"RTMP"	Yes								
		"RTMPS" /	No	No	No	No	Yes	No	Yes	No	Yes
		"Facebook" /	No	No	No	No	Yes	No	No	No	No
		"SRT"	No	Yes	Yes						
Udp		(Selected by Type)									
DstAddress	String	(IP address)	Yes								
DstPort	Integer	(Port number)	Yes								
PcrJitter	Integer	0:NORMAL, 1:LOW	No	Yes	Yes	Yes	Yes	Yes	No	No	No
PcrMode	Integer	0:Standard, 1:Fast	No	Yes	Yes						
Tcp		(Selected by Type)									
DstAddress	String	(IP address)	Yes	No	No	No	No	No	No	Yes	Yes
DstPort	Integer	(Port number)	Yes	No	No	No	No	No	No	Yes	Yes
Rtsp		(Selected by Type)									
DstPort	Integer	(Port number)	Yes								
StreamId	String	(Stream ID)	Yes								
Username	String	(User name)	Yes								
Password	String	(Password for RTSP/RTP)	Yes								
Zixi		(Selected by Type)									
DstAddress	String	(IP address)	Yes								
DstPort	Integer	(Port number)	Yes								
StreamId	String	(Stream ID for ZIXI)	Yes								
Password	String	(Password for ZIXI)	Yes								
Latency	Integer	0:Low, 1:Medium, 2:Minimum(Zixi OFF), 3:High	Yes								
PcrMode	Integer	0:Standard, 1:Fast	No	Yes	Yes						
AdaptiveBitrate	Integer	0:OFF, 1:ON	Yes								
Rtmp		(Selected by Type)									
DstUrl	String	(Network URL for Delivery)	Yes								
StreamKey	String	(Key for Delivery)	Yes								
Rtmps		(Selected by Type)									
DstUrl	String	(Network URL for Delivery)	No	No	No	No	Yes	No	Yes	No	Yes
StreamKey	String	(Key for Delivery)	No	No	No	No	Yes	No	Yes	No	Yes
Rtp		(Selected by Type)									
DstAddress	String	(IP address)	No	Yes							
DstPort	Integer	(Port number)	No	Yes							
PcrMode	Integer	0:Standard, 1:Fast	No	Yes	Yes						
Smpte2022Fec	Integer	0:OFF, 1:ON	No	Yes							
FecMatrixL	Integer	4 - 20	No	Yes							
FecMatrixD	Integer	4 - -20	No	Yes							

Srt		(Selected by Type)										
DstAddress	String	(IP address)	No	Yes	Yes							
DstPort	String	(Port number)	No	Yes	Yes							
ConnectionMode	Integer	0: Caller, 1: Listener, 2: Rendezvous	No	No	No	No	No	No	Yes	Yes		
BandwidthOverhead	Integer	5 - 100	No	No	No	No	No	No	Yes	Yes		
Latency	Integer	20 - 8000	No	No	No	No	No	No	Yes	Yes		
Encryption	Integer	0: Off, 1: AES-128, 2: AES-196, 3: AES-256	No	No	No	No	No	No	Yes	Yes		
Passphrase	String	ASCII 10-79 character	No	No	No	No	No	No	Yes	Yes		

* Type "TCP" is effective in 'GY-HM650', 'GY-HC5x0', and 'GY-HC900'.

* Type "Facebook" is effective in 'GY-HM250'.

* Type "RTMPS" is effective in 'GY-HC5x0', 'GY-HM25x', and 'KY-PZ100'.

Example

```
{
  "Response": {
    "Requested": "GetStreamingServerSettings",
    "Result": "Success",
    "Data": {
      "Alias": "Server1",
      "Type": "TCP",
      "Tcp": {
        "DstAddress": "192.168.0.1",
        "DstPort": 6504
      }
    }
  }
}
```

3.1.11. Set streaming server settings(UDP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsUDP	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								
Alias	String	(Another name of server)	Yes								
DstAddress	String	(IP address)	Yes								
DstPort	Integer	(Port number)	Yes								
PcrMode	Integer	0:Standard, 1:Fast	No	Yes	Yes						
PcrJitter	Integer	0:NORMAL, 1:LOW	No	Yes	Yes	Yes	Yes	Yes	No	No	No

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsUDP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "DstAddress": "192.168.0.1",
      "DstPort": 6504,
      "PcrJitter": 1
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsUDP	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetStreamingServerSettingsUDP",
    "Result": "Success"
  }
}
```

3.1.12. Set streaming server settings(TCP)

Set streaming settings for each server ID.

Type "TCP" is effective in 'GY-HM650', 'GY-HC5x0', and 'GY-HC900'.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsTCP	Yes	No	No	No	No	No	No	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	No	No	No	No	No	No	Yes	Yes
Params											
ID	Integer	0:server1, 1:server2, 2:server3, 3: server4	Yes	No	No	No	No	No	No	Yes	Yes
Alias	String	(Another name of server)	Yes	No	No	No	No	No	No	Yes	Yes
DstAddress	String	(IP address)	Yes	No	No	No	No	No	No	Yes	Yes
DstPort	Integer	(Port number)	Yes	No	No	No	No	No	No	Yes	Yes

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsTCP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "DstAddress": "192.168.0.1",
      "DstPort": 6504
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsTCP	Yes	No	No	No	No	No	No	Yes	Yes
Result	String	(Result of command processing.)	Yes	No	No	No	No	No	No	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "SetStreamingServerSettingsTCP",
    "Result": "Success"
  }
}
```

3.1.13. Set streaming server settings(RTSP/RTP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsRTSP	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								
Alias	String	(Another name of server)	Yes								
Username	String	(Username for RTSP/RTP)	No	Yes	Yes						
Password	String	(Password for RTSP/RTP)	Yes								

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsRTSP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "Username": "user",
      "Password": "abcde"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsRTSP	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetStreamingServerSettingsRTSP",
    "Result": "Success"
  }
}
```

3.1.14. Set streaming server settings(ZIXI)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsZIXI	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								
Alias	String	(Another name of server)	Yes								
DstAddress	String	(IP address)	Yes								
DstPort	Integer	(Port number)	Yes								
StreamId	String	(Stream ID for ZIXI)	Yes								
Password	String	(Password for ZIXI)	Yes								
Latency	Integer	0:Low, 1:Medium, 2:Minimum(Zixi OFF), 3:High	Yes								
PcrMode	Integer	0:Standard, 1:Fast	No	Yes	Yes						
AdaptiveBitrate	Integer	0:OFF, 1:ON	Yes								

* High Latency of Type is effective in 'GY-HM660', 'GY-HM200', 'GY-HM25x', 'GY-LS300', 'GY-HM8x0', and 'KY-PZ100'.

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsZIXI",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "DstAddress": "192.168.0.1",
      "DstPort": 2088,
      "StreamId": "HM650-1234",
      "Password": "abcde",
      "Latency": 1,
      "AdaptiveBitrate": 0
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsZIXI	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{  
  "Response": {  
    "Requested": "SetStreamingServerSettingsZIXI",  
    "Result": "Success"  
  }  
}
```

3.1.15. Set streaming server settings(RTMP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsRTMP	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes								
Alias	String	(Another name of server)	Yes								
DstUrl	String	(Network URL for Delivery)	Yes								
StreamKey	String	(Key for Delivery)	Yes								

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsRTMP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "DstUrl": "rtmp://xxxx.xxxx.xxxx-xxx.com/play",
      "StreamKey": "livestreaming"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsRTMP	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetStreamingServerSettingsRTMP",
    "Result": "Success"
  }
}
```

3.1.16. Set streaming server settings(RTMPS)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsRTMPS	No	No	No	No	Yes	No	Yes	No	Yes
SessionID	String	(Session ID in cookie.)	No	No	No	No	Yes	No	Yes	No	Yes
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	No	No	No	No	Yes	No	Yes	No	Yes
Alias	String	(Another name of server)	No	No	No	No	Yes	No	Yes	No	Yes
DstUrl	String	(Network URL for Delivery)	No	No	No	No	Yes	No	Yes	No	Yes
StreamKey	String	(Key for Delivery)	No	No	No	No	Yes	No	Yes	No	Yes

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsRTMPS",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "DstUrl": "rtmps://xxxx.xxxx.xxxx-xxx.com/play",
      "StreamKey": "livestreaming"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsRTMPS	No	No	No	No	Yes	No	Yes	No	Yes
Result	String	(Result of command processing.)	No	No	No	No	Yes	No	Yes	No	Yes

Example

```
{
  "Response": {
    "Requested": "SetStreamingServerSettingsRTMPS",
    "Result": "Success"
  }
}
```

3.1.17. Set streaming server settings(RTP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsRTP	No	Yes							
SessionID	String	(Session ID in cookie.)	No	Yes							
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	No	Yes							
Alias	String	(Another name of server)	No	Yes							
DstAddress	String	(IP address)	No	Yes							
DstPort	Integer	(Port number)	No	Yes							
PcrMode	Integer	0:Standard, 1:Fast	No	Yes	Yes						
Smpte2022Fec	Integer	0:OFF, 1:ON	No	Yes							
FecMatrixL	Integer	4 - 20	No	Yes							
FecMatrixD	Integer	4 - 20	No	Yes							

* FecMatrixL and FecMatrixD value are satisfy $A \times B = 100$ condition.

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsRTP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "DstAddress": "192.168.0.1",
      "DstPort": 2088,
      "Smpte2022Fec": 1,
      "FecMatrixL": 10,
      "FecMatrixD": 10
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsRTP	No	Yes							
Result	String	(Result of command processing.)	No	Yes							

Example

```
{  
  "Response": {  
    "Requested": "SetStreamingServerSettingsRTP",  
    "Result": "Success"  
  }  
}
```

3.1.18. Set streaming server settings(SRT)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingServerSettingsSRT	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						
Params											
ID	integer	0:server1, 1: server2, 2: server3, 3: server4	No	Yes	Yes						
Alias	string	(Another name of server)	No	Yes	Yes						
DstAddress	string	(IP Address)	No	Yes	Yes						
DstPort	integer	1 - 65535	No	Yes	Yes						
ConnectionMode	integer	0: Caller 1: Listener, 2: Rendezvous	No	Yes	Yes						
BandwidthOverhead	integer	5 - 100	No	Yes	Yes						
Latency	integer	20 - 8000	No	Yes	Yes						
Encryption	integer	0: OFF, 1: AES-128, 2: AES-196 3: AES-256	No	Yes	Yes						
Passphrase	string	ASCII 10-79 character	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "SetStreamingServerSettingsSRT",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 0,
      "Alias": "Server1",
      "DstAddress": "192.168.0.1",
      "DstPort": 6504
      "ConnectionMode": 0
      "BandwidthOverhead": 10
      "Latency": 20
      "Encryption": 0
      "Passphrase": "abcdefghijkl"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingServerSettingsSRT	No	No	No	No	No	No	Yes	Yes	
Result	String	(Result of command processing.)	No	Yes	Yes						

Example

```
{  
  "Response": {  
    "Requested": "SetStreamingServerSettingsSRT",  
    "Result": "Success"  
  }  
}
```

3.2. System Command

Zixi and SRT streaming modes are mutually exclusive on GY-HC5x0 and GY-HC900.
Only "Zixi" or "Srt" parameter is effective according to the streaming mode.
Current mode can be checked using GetSystemInfo response.

3.2.1. Get System Information

System information acquisition

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetSystemInfo	Yes								
SessionID	String	(Session ID in cookie.)	Yes								

Example

```
{
  "Request": {
    "Command": "GetSystemInfo",
    "SessionID": "7425fbc58ee4d15dd4c1f5ace4299a3"
  }
}
```

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetSystemInfo	Yes								
Result	String	(Result of command processing.)	Yes								
Data											
Model	String	Model information	Yes								
Model	String	"UNKNOWN" / "HM650"(GY-HM650) / "HM850"(GY-HM850) / "HM890"(GY-HM890) / "HM200"(GY-HM200) / "LS300"(GY-LS300) / "HM250"(GY-HM250) / "HM258"(GY-HM258) / "HM660"(GY-HM660) / "PZ100"(KY-PZ100) / "HC500"(GY-HC500) / "HC550"(GY-HC550) / "HC900"(GY-HC900)	Yes								
Destination	String	Place of destination "JP"(Japan) / "US"(USA・Canada) / "KR"(Korea) / "EU"(Southern Europe,Central Europe) / "ER"(Russia) / "AC"(China) / "AA"(Australia) / "AG"(Asian) / "TW"(Taiwan) / "AS"(Saudi Arabia) / "UC"(Canada) / "UA"(Argentina) / "UB"(Brazil) / "EZ"(East Europe) / "EY"(Northern Europe) / "EK"(China) / "EF"(France) / "AH"(Hong Kong) / "UN"(Format SD,NTSC/PAL both format)	Yes								
ApiVersion	String	Version "XX.YYY.ZZZ"	Yes								

			(XX:Major ver. YYYY:Minor ver. ZZZ:Development ver)									
	Serial	String	Serial number "xxxxxxxx"	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	Resolution	String	Resolution of recording format. "1920x1080" / "1440x1080" / "1280x720" / "720x480" / "720x576" / "640x360" / "480x270"	No	No	No	No	No	No	No	Yes	Yes
	Overlay	String	Overlay option "On" / "Off"	No	No	No	Yes	Yes	No	No	Yes	Yes
	Tagging	String	Tagging option "On" / "Off"	Yes	Yes	No	No	No	No	No	No	Yes
	Zixi	String	Zixi option "On" / "Off"	No	No	No	No	No	No	No	Yes	Yes
	Srt	String	Srt option "On" / "Off"	No	No	No	No	No	No	No	Yes	Yes
	KA_EN200	String	KA-EN200 option adaptor setting "On" / "Off"	No	No	No	No	No	No	No	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "GetSystemInfo",
    "Result": "Success",
    "Data": {
      "Model": "HM650",
      "Destination": "JP",
      "ApiVersion": "0.13.0",
      "Serial": "123A1234",
      "Tagging": "Off"
    }
  }
}
```

3.2.2. Session renewal

Renew a session

Updating session is needed within 25 seconds as always.

This command has become obsolete and session renewal is no longer required.

Please don't use this command because it causes malfunction on Web access.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SessionRenewal	Yes	No							
SessionID	String	(Session ID in cookie.)	Yes	No							
Params											
Update	Integer	0:False(Time-out immediately) 1:True(Time-out extension)	Yes	No							

Example

```
{  
  "Request": {  
    "Command": "SessionRenewal",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "Update": 1  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SessionRenewal	Yes	No							
Result	String	(Result of command processing.)	Yes	No							

```
{  
  "Response": {  
    "Requested": "SessionRenewal",  
    "Result": "Success"  
  }  
}
```

3.2.3. Get preset zoom position

Acquire the preset zoom position.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes

Example

```
{
  "Request": {
    "Command": "GetPresetZoomPosition",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Data											
A	Integer	Value of Preset "0" - "499",no-setting "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
B	Integer	Value of Preset "0" - "499",no-setting "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
C	Integer	Value of Preset "0" - "499",no-setting "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes

Example

```
{
  "Response": {
    "Requested": "GetPresetZoomPosition",
    "Result": "Success",
    "Data": {
      "A": 10, "B": 20, "C": 30
    }
  }
}
```

3.2.4. Set preset zoom position

Preset the zoom position.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Params											
ID	String	"A"/"B"/"C" is Preset ID	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Position	Integer	Value of Preset "0" - "499", delete setting is "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes

Example

```
{  
  "Request": {  
    "Command" : "SetPresetZoomPosition",  
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params" : {  
      "ID" : "A",  
      "Position" : 300  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes

Example

```
{  
  "Response": {  
    "Requested" : "SetPresetZoomPosition",  
    "Result" : "Success"  
  }  
}
```

3.2.5. Set tally lamp priority

This command was moved to "3.7.3. Set tally lamp priority".

3.2.6. Get NTP Status

Acquire the status of NTP.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetNTPStatus	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{
  "Request": {
    "Command": "GetNTPStatus",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetNTPStatus	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Data											
Address	String	(IP address)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
TcSync	String	"On" / "Off"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No
Status	String	"Syncronized" / "NotSyncronized" / "Master"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "GetNTPStatus",
    "Result": "Success",
    "Data": {
      "Address": "192.168.0.100",
      "TcSync": "On",
      "Status": "Syncronized"
    }
  }
}
```

3.2.7. Set NTP Server

Set the NTP server address.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetNTPServer	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Params											
Address	String	(IP address)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{  
  "Request": {  
    "Command": "SetNTPServer",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "Address": "192.168.0.100"  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetNTPServer	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{  
  "Response": {  
    "Requested": "SetNTPServer",  
    "Result": "Success"  
  }  
}
```

3.2.8. Set NTP Settings

Set the NTP settings.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetNTPSettings	No	Yes	Yes	Yes	Yes	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	No	No
Params											
TcSync	String	"On"/"Off"	No	Yes	Yes	Yes	Yes	No	Yes	No	No

Example

```
{  
  "Request": {  
    "Command": "SetNTPSettings",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "TcSync": "On"  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetNTPSettings	No	Yes	Yes	Yes	Yes	No	Yes	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	No	No

Example

```
{  
  "Response": {  
    "Requested": "SetNTPSettings",  
    "Result": "Success"  
  }  
}
```

3.3. Camera Control Command

3.3.1. Get camera status

Request all status information of camera function.

It is recommended to use this command every 500 msec or above.

Unnecessary use of this command make performance degradation.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetCamStatus	Yes								
SessionID	String	(Session ID in cookie.)	Yes								

Example

```
{
  "Request": {
    "Command": "GetCamStatus",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetCamStatus									
Result	String	(Result of command processing.)									
Data			Yes								
Camera		(Camera)	Yes								
Status	String	Status "NoCard"(no card inserted) / "Stop"(recording stop) / "Standby"(record standby) / "Rec"(recording)/ "RecPause"(recording pause)	Yes								
Mode	String	Mode "Camera"(record mode) / "Thmubnail"(display thmubnail) / "Play"(play clip) / "Review"(review clip) / "USB"(connect USB) / "EditMetadata"(edit metadata)	Yes								
RecMode	String	Rec mode "Normal" / "Pre" / "Clip" / "Frame" / "Interval" / "Variable"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
TC	String	recording time(sec)(32bit length)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
AspectRatio	String	Aspect ratio "16:9" / "4:3"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
WebAccess	String	Web access "Off" / "On"	Yes								
VideoOutputStatus	String	Video output status of camera "Off" / "On"	No	No	No	No	No	No	Yes	No	No
MenuStatus	String	Menu Open status of camera "Off" / "On"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
MenuOutput	String	"All" / "Web"	No	No	No	No	No	No	Yes	No	No

FullAuto					Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Status	String	Status "Off" / "On" / "Preset"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Exposure					No	No	No	No	No	No	Yes	No	No
Status	String	Exposure "Auto" / "Manual" / "IrisPriority" / "ShutterPriority"			No	No	No	No	No	No	Yes	No	No
Iris					Yes								
Status	String	Mode "Manual" / "Auto" / "AutoAElock"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Auto" / "Manual"			No	No	No	No	No	No	Yes	No	No
Value	String	Character string for iris value			Yes								
Position	Integer	Iris position (0-255, for Slider button position)			No	Yes	Yes						
Gain					Yes								
Status	String	Mode "ManualL" / "ManualM" / "ManualH" / "Alc" or "AGC"(HC5x0) / "AlcAElock" / "Lolux" / "Variable"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Auto" / "Manual"			No	No	No	No	No	No	Yes	No	No
Value	String	Character string for gain value			Yes								
AeLevel					Yes								
Status	String	Mode "AeOff" / "AeOn" / "AeOnFace"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Adjust	String	AE Level adjustment "On" / "Off"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Value	String	Character string for AE level value			Yes								
Shutter					Yes								
Status	String	Mode "Off" / "Manual" / "Step" / "Variable" / "Eei" / "EeiAElock"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Auto" / "Manual"			No	No	No	No	No	No	Yes	No	No
Value	String	Character string for Shutter value			Yes								
Whb					Yes								
Status	String	Mode "Preset"/"A"/"B"/"Faw"/"FawAElock"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Faw" / "Awb" / "OnePush" / "3200K" / "5600K" / "Manual"			No	No	No	No	No	No	Yes	No	No
Value	String	Character string for White Balance value			Yes								
WhPRScale	Integer	Slide bar total length for White paint Red(0-64)			Yes								
WhPBScale	Integer	Slide bar total length for White paint Blue(0-64)			Yes								
WhPRPosition	Integer	Slide bar current position for White paint Red(0-64)			Yes								
WhPBPosition	Integer	Slide bar current position for White paint Blue(0-64)			Yes								
WhPRValue	String	Character string for White paint Red value			Yes								
WhPBValue	String	Character string for White paint Blue value			Yes								
Zoom					Yes								
Dynamic	String	Dynamic Zoom Status "On" / "Off"			No	No	No	Yes	Yes	No	No	No	No
DynamicPos	Integer	Dynamic Zoom Position(0-499)			No	No	No	Yes	Yes	No	No	No	No
Position	Integer	Zoom position (0-499, for Slider button position)			Yes								
DisplayValue	String	Character string for Zoom value "Z0 – Z149" (GY-HM200/HM25x/LS300 F-number "0 - 9999mm")			Yes								
PanTilt					No	Yes	No						
SpeedWithZoom	String	Speed With Zoom Status "On" / "Off"			No	No	No	No	No	No	Yes	No	No
PresetSpeed	Integer	Pan/Tilt/Preset speed (1-30)			No	No	No	No	No	No	Yes	No	No
Focus					Yes								
Status	String	Mode "AFFace" / "AF" / "MFOnePush" / "MF" / "MFFace"			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Auto" / "Manual"			No	No	No	No	No	No	Yes	No	No
Value	String	Character string for Focus value			Yes								
MasterBlack					No	Yes	Yes	Yes	Yes	Yes	No	No	Yes

	Value	String	Character string for MasterBlack value	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
Detail				No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	
	Value	String	Character string for Detail value	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	
Streaming				Yes									
	Status	String	Status "Stop"(Streaming has stopped or cannot be started.) / "Stopping"(About to stop.) / "Start"(Streaming has started.) / "Starting"(About to start.) / "Waiting"(Waiting for connection. (for RTSP/RTP)) / "Error" (Error occurred or waiting to start RTSP/RTP streaming)	Yes									
ReturnOverIP				No	Yes	Yes							
	Status	String	Status "Stop"(Return over IP has stopped or cannot be started.) / "Stopping"(About to stop.) / "Start"(Return over IP has started.) / "Starting"(About to start.) / "Error"	No	No	No	No	No	No	Yes	Yes	Yes	
Disptv				Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Status	String	Status "On" / "Off"	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
CharacterMix				No	No	Yes	No	No	No	No	Yes	Yes	Yes
	Sdi	String	Mix "On" / "Off"	No	No	Yes	No	No	No	No	Yes	Yes	Yes
	Hdmi	String	Mix "On" / "Off"	No	No	Yes	No	No	No	No	Yes	Yes	Yes
	Video	String	Mix "On" / "Off"	No	No	Yes	No	No	No	No	Yes	Yes	Yes
TallyLamp				Yes									
	Priority	String	Priority "Camera" / "Web"	Yes									
	Lighting	String	Lighting "On" / "Off"	Yes									
	StudioTally	String	Status "Off" / "Program" / "Preview"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
SlotA			(Status of SlotA)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	Status	String	Status "Select" / "NoSelect" / "NoCard" / "SelectRec" / "NoSelectRec" / "Invalid" / "Unknown"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	Protect	String	Status "Unlock" / "Lock"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	Remain	String	Remaining amount time(minutes) (0-65535)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	ClipNum	Integer	Number of clips(0-4000)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	RemainWarning	Integer	Remaining amount warning(0=No warning/1=Warning)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
SlotB			(Status of SlotB)	Yes									
	Status	String	Status "Select" / "NoSelect" / "NoCard" / "SelectRec" / "NoSelectRec" / "Invalid" / "Unknown"	Yes									
	Protect	String	Status "Unlock" / "Lock"	Yes									
	Remain	String	Remaining amount time(minutes) (0-65535)	Yes									
	ClipNum	Integer	Number of clips(0-4000)	Yes									
	RemainWarning	Integer	Remaining amount warning(0=No warning/1=Warning)	Yes									
SlotExt			(Status of SlotExt)	No	Yes	Yes	Yes						
	Status	String	Status "Select" / "NoSelect" / "NoCard" / "SelectRec" / "NoSelectRec" / "Invalid" / "Unknown"	No	Yes	Yes	Yes						
	Protect	String	Status "Unlock" / "Lock"	No	Yes	Yes	Yes						
	Remain	String	Remaining amount time(minutes) (0-65535)	No	Yes	Yes	Yes						
	ClipNum	Integer	Number of clips(0-4000)	No	Yes	Yes	Yes						

	RemainWarning	Integer	Remaining amount warning(0=No warning/1=Warning)	No	Yes	Yes						
Battery			(Status of Battery)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Info	String		Battery information display classification "Time"(minutes) / "Capacity"(%) / "Voltage"(V)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Level	String	Battery Level		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		0: no battery / 1: plug / 2: plug[!] / 3: battery[?] /		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		4: battery[CAL] / 5: battery[empty] / 6: battery[low] /		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		7: battery[middle] / 8: battery[full] /		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		9: battery[no segments] /		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		10: charging battery [empty] /		No	Yes	No	Yes	Yes	Yes	No	Yes	Yes
		11: charging battery [low] /		No	Yes	No	Yes	Yes	Yes	No	Yes	Yes
		12: charging battery [middle] /		No	Yes	No	Yes	Yes	Yes	No	Yes	Yes
		13: charging battery [full] /		No	Yes	No	Yes	Yes	Yes	No	Yes	Yes
		14: charging battery [no segments]		No	Yes	No	Yes	Yes	Yes	No	Yes	Yes
Value	String	Remaining amount time (minutes/ % / Voltage .. 65535 is impossible get)(0-1000/10)		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Enable			(Availability of function button switches)	Yes								
Fullauto		Fullauto	(Fullauto function)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Enable	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		On	button "ON" switch of fullauto 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Off	button "OFF" switch of fullauto 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Exposure		Preset	button "PRESET" switch of fullauto 0:Disable, 1:Enable	No								
		Exposure	(Exposure function)	No	No	No	No	No	No	Yes	No	No
		Enable	switch 0:Disable, 1:Enable	No								
		Auto	button "Atuo" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Manual	button "Manual" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		ShutterPriority	button ShutterPriority" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
Iris		IrisPriority	button "IrisPriority" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Iris	(Iris function)	Yes								
		Enable	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		StatusDisp	Display Value of iris 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes	Yes
		Manual	button "MANUAL" switch of iris 0:Disable, 1:Enable	Yes								
		Auto	button "AUTO" switch of iris 0:Disable, 1:Enable	Yes								
		Open1	button ">" switch of iris 0:Disable, 1:Enable	Yes								
		Open2	button ">>" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Open3	button ">>>" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Close1	button "<" switch of iris 0:Disable, 1:Enable	Yes								
		Close2	button "<<" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Close3	button "<<<" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Gain		PushAuto	button "Push Auto" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
		Gain	(Gain function)	Yes								
		Enable	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		StatusDisp	Display Value of gain 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes	Yes
		Manual	button "MANUAL" switch of gain 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	Yes	No	No
		Auto	button "AUTO" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
Lolux	Integer	Lolux	button "LOLUX" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Variable	button "Variable" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	Yes

		L	Integer	button "L" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		M	Integer	button "M" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		H	Integer	button "H" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Up1	Integer	button "Up1" switch of gain 0:Disable, 1:Enable	No	Yes						
		Up2	Integer	button "Up2" switch of gain 0:Disable, 1:Enable	No	No	No	No	Yes	No	Yes	Yes
		Down1	Integer	button "Down1" switch of gain 0:Disable, 1:Enable	No	Yes						
		Down2	Integer	button "Down2" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	Yes
	AeLevel			(AE Level function)	Yes							
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	No	Yes	Yes
		StatusDisp	Integer	Display Value of AELevel 0:Disable, 1:Enable	No	No	No	Yes	Yes	No	Yes	Yes
		Up	Integer	button "▲" switch of AElevel 0:Disable, 1:Enable	Yes							
		Down	Integer	button "▼" switch of AElevel 0:Disable, 1:Enable	Yes							
		AdjustOn	Integer	button "ON" switch of AElevel 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
		AdjustOff	Integer	button "OFF" switch of AElevel 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
	Shutter			(Shutter function)	Yes							
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	No	Yes	Yes
		StatusDisp	Integer	Display Value of Shutter 0:Disable, 1:Enable)	No	No	No	Yes	Yes	No	Yes	Yes
		Off	Integer	button "OFF" switch of shatter 0:Disable, 1:Enable	Yes	Yes	Yes	No	No	No	No	No
		Manual	Integer	button "MANUAL" switch of shatter 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	No	No
		Step	Integer	button "STEP" switch of shatter 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	No	Yes	Yes
		Variable	Integer	button "VARIABLE" switch of shatter 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	No	Yes	Yes
		Eei	Integer	button "EEI" switch of shatter 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Slower	Integer	button "▲" switch of shatter 0:Disable, 1:Enable	Yes							
		Faster	Integer	button "▼" switch of shatter 0:Disable, 1:Enable	Yes							
	Whb			(White balance function)	Yes							
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	No	Yes	Yes
		StatusDisp	Integer	Display Value of White balance 0:Disable, 1:Enable	No	No	No	Yes	Yes	No	Yes	Yes
		Manual	Integer	button "MANUAL" switch of White balance 0:Disable, 1:Enable	Yes	Yes	No	No	No	Yes	No	No
		Faw	Integer	button "FAW" switch of White balance 0:Disable, 1:Enable	Yes	Yes	No	No	No	Yes	No	No
		Preset	Integer	button "PRESET" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		A	Integer	button "A" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		B	Integer	button "B" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		Awb	Integer	button "AWB" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	No
		PushAuto	Integer	button "OnePushTrigger" switch of White balance 0:Disable, 1:Enable	Yes							
		K3200	Integer	button "3200K" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	No
		K5600	Integer	button "5600K" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	No
		WhPaintRP	Integer	button "↑" switch of White paint 0:Disable, 1:Enable	Yes							
		WhPaintRM	Integer	button "↓" switch of White paint 0:Disable, 1:Enable	Yes							
		WhPaintBP	Integer	button "→" switch of White paint 0:Disable, 1:Enable	Yes							
		WhPaintBM	Integer	button "←" switch of White paint 0:Disable, 1:Enable	Yes							
	Zoom			(Zoom function)	Yes							
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	No	Yes	Yes

		StatusDisp	Integer	Display Value of Zoom 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes	Yes	
		Tele1	Integer	button ">" switch of zoom 0:Disable, 1:Enable	Yes									
		Tele2	Integer	button ">>" switch of zoom 0:Disable, 1:Enable	Yes									
		Tele3	Integer	button ">>>" switch of zoom 0:Disable, 1:Enable	Yes									
		Wide1	Integer	button "<" switch of zoom 0:Disable, 1:Enable	Yes									
		Wide2	Integer	button "<<" switch of zoom 0:Disable, 1:Enable	Yes									
		Wide3	Integer	button "<<<" switch of zoom 0:Disable, 1:Enable	Yes									
		Tele	Integer	button "Tele" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	
		Wide	Integer	button "Wide" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	
		Preset	Integer	button "Preset" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	
		Clear	Integer	button "Clear" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	
		Preset1	Integer	button "A" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	No	Yes	
		Preset2	Integer	button "B" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	No	Yes	
		Preset3	Integer	button "C" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	No	Yes	
Focus		(Focus function)				Yes								
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	
		StatusDisp	Integer	Display Value of Focus 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes	Yes	
		Manual	Integer	button "MANUAL" switch of focus 0:Disable, 1:Enable	Yes									
		Auto	Integer	button "AUTO" switch of focus 0:Disable, 1:Enable	Yes									
		Far1	Integer	button ">" switch of focus 0:Disable, 1:Enable	Yes									
		Far2	Integer	button ">>" switch of focus 0:Disable, 1:Enable	Yes									
		Far3	Integer	button ">>>" switch of focus 0:Disable, 1:Enable	Yes									
		Near1	Integer	button "<" switch of focus 0:Disable, 1:Enable	Yes									
		Near2	Integer	button "<<" switch of focus 0:Disable, 1:Enable	Yes									
		Near3	Integer	button "<<<" switch of focus 0:Disable, 1:Enable	Yes									
		Infinity	Integer	button " ∞ " switch of focus 0:Disable, 1:Enable	Yes	Yes	No							
		PushAuto	Integer	button "PUSH AUTO" switch of focus 0:Disable, 1:Enable	Yes									
MasterBlack		(MasterBlack function)				No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
		Enable	Integer	switch 0:Disable, 1:Enable	No	Yes	Yes							
		StatusDisp	Integer	Display Value of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes							
		Up1	Integer	button ">" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Up2	Integer	button ">>" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Up3	Integer	button ">>>" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Down1	Integer	button "<" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Down2	Integer	button "<<" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Down3	Integer	button "<<<" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Detail				No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Detail		Enable	Integer	switch 0:Disable, 1:Enable	No									
		StatusDisp	Integer	Display Value of Detail 0:Disable, 1:Enable	No									
		Up	Integer	button ">" switch of Detail 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
		Down	Integer	button "<" switch of Detail 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
User		(switch of user assignment)				Yes								
		Sw0	Integer	button "SW0" switch of User Switch 0:Disable, 1:Enable	No	Yes	No							
		Sw1	Integer	button "SW1" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
		Sw2	Integer	button "SW2" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	

			button "SW3" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW4" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW5" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW6" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW7" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW8" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW9" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
			button "SW10" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	No	No	Yes	No	No	Yes
			button "SW11" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	No	Yes
			button "SW12" switch of User Switch 0:Disable, 1:Enable	No	Yes							
			button "SW13" switch of User Switch 0:Disable, 1:Enable	No	Yes							
		LensRet	button "LensRet" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes	No
		Sub1	button "Sub1" switch of User Switch 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Sub2	button "Sub2" switch of User Switch 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Sub3	button "Sub3" switch of User Switch 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		VfSw1	button "VfSW1" switch of User Switch 0:Disable, 1:Enable	No	Yes	No						
		VfSw2	button "VfSW2" switch of User Switch 0:Disable, 1:Enable	No	Yes	No						
		Streaming	(Streaming function)	Yes								
		Enable	switch 0:Disable, 1:Enable	No	Yes	Yes						
		StatusDisp	Display Value of Streaming 0:Disable, 1:Enable	No	Yes	Yes						
		On	button "ON" switch of Streaming 0:Disable, 1:Enable	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
		Off	button "OFF" switch of Streaming 0:Disable, 1:Enable	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
		Disptv	(Display function)	Yes	No	No						
		On	button "ON" switch of Display 0:Disable, 1:Enable	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes
		Off	button "OFF" switch of Display 0:Disable, 1:Enable	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes
		CharacterMix	(Character mix function)	No	No	Yes	No	No	No	No	Yes	Yes
		Sdi	button "SDI" switch of CharacterMix 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes	Yes
		Hdmi	button "HDMI" switch of CharacterMix 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes	Yes
		Video	button "Video" switch of CharacterMix 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes	Yes

		(Menu function)		Yes								
	Display	Integer	button "DYSPLAY" switch of Menu 0:Disable, 1:Enable	Yes								
	Status	Integer	button "STATUS" switch of Menu 0:Disable, 1:Enable	Yes								
	Menu	Integer	button "MENU" switch of Menu 0:Disable, 1:Enable	Yes								
	Set	Integer	button "SET" switch of Menu 0:Disable, 1:Enable	Yes								
	Cancel	Integer	button "CANCEL" switch of Menu 0:Disable, 1:Enable	Yes								
	Up	Integer	button "↑" switch of Menu 0:Disable, 1:Enable	Yes								
	Down	Integer	button "↓" switch of Menu 0:Disable, 1:Enable	Yes								
	Left	Integer	button "←" switch of Menu 0:Disable, 1:Enable	Yes								
	Right	Integer	button "→" switch of Menu 0:Disable, 1:Enable	Yes								
	ButtonString		(String of button name)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Gain		(Button of gain)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	L	String	String of Low gain button	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	M	String	String of Middle gain button	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	H	String	String of High gain button	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	User		(Button of user switch alocation)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw0	String	String of User switch 0 "Load Picture File" / "Clip Cutter Trig" / "Backup Trig" / "Clip Review" / "Zebra" / "Marker" / "Lolux" / "Bars" / "Focus Assist" / "OIS" / "AE Lock" / "OK Mark" / "Spot Meter" / "Face Detect" / "White Balance" / "Preset Zoom 1" / "Preset Zoom 2" / "Preset Zoom 3" / "LCD Backlight" / "Flash Band" / "One Push Focus" / "One Push Iris" / "Expanded Focus" / "Live Streaming" / "Auto Focus" / "Histogram" / "AWB" / "Rec" / "Return Video"	No	No	No	No	No	No	Yes	No	
	Sw1	String	String of User switch 2. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw2	String	String of User switch 2. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw3	String	String of User switch 3. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw4	String	String of User switch 4. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw5	String	String of User switch 5. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw6	String	String of User switch 6. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw7	String	String of User switch 7. Same as above.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Sw8	String	String of User switch 8. Same as above.	No	No	Yes	Yes	Yes	No	Yes	Yes	
	Sw9	String	String of User switch 9. Same as above.	No	No	Yes	Yes	Yes	No	Yes	Yes	
	Sw10	String	String of User switch 10. Same as above.	No	No	Yes	No	No	Yes	No	Yes	
	Sw11	String	String of User switch 11. Same as above.	No	No	Yes	No	No	No	No	No	
	Sw12	String	String of User switch 12. Same as above.	No	Yes							
	Sw13	String	String of User switch 13. Same as above.	No	Yes							
	LensRet	String	String of User switch Lens Ret. Same as above.	No	No	Yes	No	No	No	No	No	
	VfSw1	String	String of User Viewfinder switch1 Same as above.	No	Yes							
	VfSw2	String	String of User Viewfinder switch2 Same as above.	No	No	No	No	No	No	Yes	No	
	Whb		(Button of White balance)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
	Preset	String	String of Preset button "PRESET" / "A" / "B" / "FAW"	No	No	Yes	Yes	Yes	No	Yes	Yes	
	A	String	String of A button "PRESET" / "A" / "B" / "FAW"	No	No	Yes	Yes	Yes	No	Yes	Yes	
	B	String	String of B button "PRESET" / "A" / "B" / "FAW"	No	No	Yes	Yes	Yes	No	Yes	Yes	

Example

```
{  
  "Response": {  
    "Requested": "GetCamStatus",  
    "Result": "Success",  
    "Data": {  
      "Camera": {  
        "Status": "Standby", "Mode": "Camera", "RecMode": "Normal",  
        "TC": "#####", "AspectRatio": "16:9", "WebAccess": "On"  
      },  
      "Fullauto": {  
        "Status": "Auto"  
      },  
      "Iris": {  
        "Status": "Auto", "Value": "0"  
      },  
      "Gain": {  
        "Status": "AIC", "Value": "0"  
      },  
      "AeLevel": {  
        "Status": "AeOn", "Adjust": "On", "Value": "0"  
      },  
      "Shutter": {  
        "Status": "Eel", "Value": "0"  
      },  
      "Whb": {  
        "Status": "Faw", "Value": "0",  
        "WhPRScale": "Off", "WhPBScale": "0",  
        "WhPRPosition": "100", "WhPBPosition": "Z100",  
        "WhPRValue": "100", "WhPBValue": "Z100"  
      },  
      "Zoom": {  
        "Dynamic": "Off", "DynamicPos": "0",  
        "Position": "100", "DisplayValue": "Z100"  
      },  
      "Focus": {  
        "Status": "AF", "Value": "0"  
      },  
      "Streaming": {  
        "Status": "Stop"  
      },  
      "Disptv": {  
        "Status": "Off"  
      },  
      "CharacterMix": {  
        "Sdi": "Off", "Hdmi": "Off", "Video": "Off"  
      },  
      "TallyLamp": {  
        "Status": "Off"  
      }  
    }  
  }  
}
```

```

    "Priority" : "Camera" , "Sw" : "Off"
},
"SlotA": {
    "Status" : "Select" , "Protect" : "Unlock" , "Remain" : "120" , "ClipNum" : "50" ,
    "RemainWarning" : "0"
},
"SlotB": {
    "Status" : "Select" , "Protect" : "Unlock" , "Remain" : "140" , "ClipNum" : "25" ,
    "RemainWarning" : "0"
},
"Battery": {
    "Info" : "Time" , "Level" : "8" , "Value" : "80"
},
"Enable": {
    "Fullauto": {
        "Status" : 1 , "On" : 1 , "Off" : 1 , "Preset" : 1
    },
    "Iris": {
        "Status" : 1 , "StatusDisp" : 1 ,
        "Manual" : 1 , "Auto" : 1 , "Open1" : 1 , "Open2" : 1 , "Open3" : 1 ,
        "Close1" : 1 , "Close 2" : 1 , "Close 3" : 1 "PushAuto" : 1
    },
    "Gain": {
        "Status" : 1 , "StatusDisp" : 1 ,
        "Manual" : 1 , "Agc" : 1 , "Lolux" : 1 , "Variable" : 1 , "L" : 1 , "M" : 1 , "H" : 1 ,
        "Up1" : 1 , "Up2" : 1 , "Down1" : 1 , "Down2" : 1 ,
    },
    "AeLevel": {
        "Status" : 1 , "StatusDisp" : 1 ,
        "AeLevelUp" : 1 , "AeLevelDown" : 1 , "AdjustOn" : 1 , "AdjustOff" : 1
    },
    "Shutter": {
        "Status" : 1 , "StatusDisp" : 1 ,
        "Off" : 1 , "Manual" : 1 , "Step" : 1 , "Variable" : 1 , "Eei" : 1 ,
        "Slower" : 1 , "Faster" : 1
    },
    "Whb": {
        "Status" : 1 , "StatusDisp" : 1 ,
        "Manual" : 1 , "Faw" : 1 , "Preset" : 1 , "A" : 1 , "B" : 1 , "Adjust" : 1 ,
        "WhPaintRP" : 1 , "WhPaintRM" : 1 , "WhPaintBP" : 1 , "WhPaintBM" : 1
    },
    "Zoom": {
        "Status" : 1 , "StatusDisp" : 1 ,
        "Tele1" : 1 , "Tele2" : 1 , "Tele3" : 1 , "Wide1" : 1 , "Wide2" : 1 , "Wide3" : 1 ,
        "Tele" : 1 , "Wide" : 1 ,
        "Preset" : 1 , "Clear" : 1 , "Preset1" : 1 , "Preset2" : 1 , "Preset3" : 1
    },
    "Focus": {
        "Status" : 1 , "StatusDisp" : 1 ,
    }
}

```

```
"Manual" : 1 , "Auto" : 1 ,
"Far1" : 1 , "Far2" : 1 , "Far3" : 1 , "Near1" : 1 , "Near2" : 1 , "Near3" : 1 ,
"Infinity" : 1 , "PushAuto" : 1
} ,
"User" : {
"Sw1" : 1 , "Sw2" : 1 , "Sw3" : 1 , "Sw4" : 1 , "Sw5" : 1 , "SDw6" : 1 ,
"Sw7" : 1 , "Sw8" : 1 , "Sw9" : 1 , "Sw10" : 1 , "Sw11" : 1 , "LensRet" : 1
} ,
"Streaming" : {
"On" : 1 , "Off" : 1
} ,
"Disptv" : {
"On" : 1 , "Off" : 1
} ,
"CharacterMix" : {
"Sdi" : 1 , "Hdmi" : 1 , "Video" : 1
} ,
"Menu" : {
"Display" : 1 , "Status" : 1 ,
"Menu" : 1 , "Set" : 1 , "Cancel" : 1 ,
"Up" : 1 , "Down" : 1 , "Left" : 1 , "Right" : 1
}
} ,
"ButtonString" : {
"Gain" : {
"L" : "0dB" , "M" : "6dB" , "H" : "12dB"
} ,
"User" : {
"Sw1" : "Focus Assist" , "Sw2" : "OIS" , "Sw3" : "Lolux" , "Sw4" : "AE Lock" ,
"Sw5" : "Zebra" , "Sw6" : "Marker" , "Sw7" : "Clip Review" , "Sw8" : "Rec" ,
"Sw9" : "AWB" , "Sw10" : "TC Preset" , "Sw11" : "OK Mark" ,
"LensRet" : "Live Streaming"
} ,
"Whb" : {
"Preset" : "PRESET" , "A" : "A" , "B" : "B"
}
}
}
}
```

3.3.2. Recording

Control the recording function

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetCamCtrl	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
CamCtrl	String	Camera Control "Rec":recording start / "Stop":recording stop	Yes								

Example

```
{
  "Request": {
    "Command": "SetCamCtrl",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "CamCtrl": "Rec"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetCamCtrl	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetCamCtrl",
    "Result": "Success"
  }
}
```

3.3.3. Set zoom position (obey preset zoom settings of camera)

Control zoom position

In operation, obey preset zoom speed settings of camera,

If you use zooming with slide bar, you should use "SetWebSliderEvent" command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetZoomCtrl	Yes	No	Yes						
SessionID	String	(Session ID in cookie.)	Yes	No	Yes						
Params											
Position	Integer	Zoom position "0"~"499"	Yes	No	Yes						

Example

```
{  
  "Request": {  
    "Command": "SetZoomCtrl",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "Position": 400  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetZoomCtrl	Yes	No	Yes						
Result	String	(Result of command processing.)	Yes	No	Yes						

Example

```
{  
  "Response": {  
    "Requested": "SetZoomCtrl",  
    "Result": "Success"  
  }  
}
```

3.3.4. Live streaming

Control the streaming function

After changing settings with API command, you should check the result of the command before start live streaming.

While menu or status screen is displayed on the camcorder, start/stop streaming command does not work.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStreamingCtrl	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
Streaming	String	Streaming Control "On":streaming start / "Off":streaming stop	Yes								

Example

```
{
  "Request": {
    "Command": "SetStreamingCtrl",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Streaming": "On"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStreamingCtrl	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetStreamingCtrl",
    "Result": "Success"
  }
}
```

3.3.5. Tally lamp control

This command controls tally lamp.

Turning on/off the tally lamp depends on camera settings. "3.7.2. Set tally lamp priority" has the details.

"SetTallyLampCtrl" should be used only when changing the tally lamp state, otherwise it causes performance degradation.

Please do not use "SetTallyLampCtrl" in the studio tally system described in '3.7. How to control studio tally system'.

From Web API version 1.07, alarm indication on the camera itself has highest priority compared with all other tally control via web interface.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetTallyLampCtrl	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
Sw	String	Tally lamp Control "On"(The order turns on LED) / "Off"(The order turns off LED) /	Yes								

Example

```
{
  "Request": {
    "Command": "SetTallyLampCtrl",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Sw": "On"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetTallyLampCtrl	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetTallyLampCtrl",
    "Result": "Success"
  }
}
```

3.3.6. Set Web Button Event

Issue a button event

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetWebButtonEvent	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params		(Button parameter is selected by Kind parameter)									
Kind	String	Kind of button event									
		"Fullauto"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Iris"	Yes								
		"Gain"	Yes								
		"AeLevel"	Yes								
		"Shutter"	Yes								
		"Whb"	Yes								
		"Zoom"	Yes								
		"Focus"	Yes								
		"User"	Yes								
		"Disptv"	Yes								
		"Menu"	Yes								
		"Rec"	Yes								
		"MasterBlack"	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
		"Detail"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
		"Exposure"	No	No	No	No	No	No	Yes	No	No
		"SpeedWithZoom"	No	No	No	No	No	No	Yes	No	No
Button	String	Fullauto event									
		"On" / "Off"	Yes								
		"Preset"	No	No	No	No	No	Yes	No	No	No
		Exposure event									
		"Auto" / "Manual" / "IrisPriority" / "ShutterPriority"	No	No	No	No	No	No	Yes	No	No
		Iris event									
		"Manual" / "Auto"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Open1"	Yes								
		"Open2"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Open3"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Close1"	Yes								
		"Close2"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Close3"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"PushAuto"	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
		Gain event									
		"Alc"	Yes	Yes	No						
		"Lolux"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"L" / "M" / "H"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Variable"	No	No	No	No	No	Yes	No	No	No
		"Up1"	No	Yes							
		"Up2"	No	No	No	No	No	Yes	No	No	No
		"Down1"	No	Yes							

		"Down2"	No	No	No	No	No	Yes	No	No	No
		"Manual" / "Auto"	No								
		AeLevel event									
		"AeLevelUp" / "AeLevelDown"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"AdjustOn" / "AdjustOff"	No	No	No	Yes	Yes	Yes	No	Yes	Yes
		"Up" / "Down"	No	No	No	No	No	No	Yes	No	No
		Shutter event									
		"Off"	Yes	Yes	Yes	No	No	No	No	No	No
		"Step"	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Variable"	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Manual"	Yes	Yes	No						
		"Eei"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Slower"	Yes								
		"Faster"	Yes								
		Whb event									
		"Faw"	Yes	Yes	No	No	No	Yes	No	No	No
		"Preset" / "A" / "B"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Adjust" (Awb trigger when PZ100)	Yes								
		"WhPaintRP"/"WhPaintRM"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"WhPaintBP"/"WhPaintBM"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Awb"	No	No	No	No	No	No	Yes	No	No
		"3200K"	No	No	No	No	No	No	Yes	No	No
		"5600K"	No	No	No	No	No	No	Yes	No	No
		"Manual"	No	No	No	No	No	No	Yes	No	No
		Zoom event									
		"Tele1" / "Tele2" / "Tele3"	Yes								
		"Wide1" / "Wide2" / "Wide3"	Yes								
		"Stop"	No	No	No	No	No	No	Yes	No	No
		※"Tele" or "Wide" events need "Stop" in KY-PZ100.									
		Focus event									
		"Manual" / "Auto"	Yes	No	Yes						
		"Far1" / "Far2" / "Far3" / "Near1" / "Near2" / "Near3"	Yes								
		"Infinity"	Yes	Yes	No						
		"PushAuto"	Yes	No	Yes						
		"Stop"	No	No	No	No	No	No	Yes	No	No
		※"Far" or "Near" events need "Stop" in KY-PZ100.									
		MasterBlack event									
		"Up1" / "Up2" / "Up3" / "Down1" / "Down2" / "Down3"	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
		User event									
		"Sw0"	No	No	Yes	No	No	No	Yes	No	
		"Sw1" / "Sw2" / "Sw3" / "Sw4" / "Sw5" / "Sw6" / "Sw7"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Sw8"	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Sw9"	No	No	Yes	Yes	Yes	Yes	No	No	Yes
		"Sw10"	No	No	Yes	No	No	Yes	No	No	Yes
		"Sw11"	No	No	Yes	No	No	No	No	No	Yes
		"Sw12" / "Sw13"	No	Yes							
		"LensRet"	No	No	Yes	No	No	No	No	Yes	No
		"Sub1" / "Sub2" / "Sub3"	No	No	No	No	No	No	Yes	No	No
		"VfSw1" / "VfSw2"	No	Yes	No						

		Disptv event										
		"On":(Display on TV) / "Off":(Display on TV)	Yes	Yes	No	Yes	Yes	Yes	No	No	No	No
		"Sdi":(Character Mix)	No	No	Yes	No	No	No	No	Yes	Yes	
		"Hdmi":(Character Mix)	No	No	Yes	No	No	No	No	Yes	Yes	
		"Video":(Character Mix)	No	No	Yes	No	No	No	No	Yes	Yes	
		Menu event										
		"Display":(Menu) / "Status":(Menu) / "Menu":(Menu)	Yes									
		"Cancel":(Menu) / "Set":(Menu) / "Up":(Menu) /	Yes									
		"Down":(Menu) / "Left":(Menu) / "Right":(Menu)	Yes									
		※ "Up", "Down", "Left", and "Right" events call assigned function when menu is closed.	No	Yes	Yes							
		Rec event										
		"Start":Recording start / "Stop":Recording stop	Yes									
		Detail event "Up" / "Down"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
		SpeedWithZoom event "Off" / "On"	No	No	No	No	No	No	Yes	No	No	No

Example

```
{
  "Request": {
    "Command": "SetWebButtonEvent",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Kind": "Fullauto",
      "Button": "On"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetWebButtonEvent	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetWebButtonEvent",
    "Result": "Success"
  }
}
```

3.3.7. Set Web Slider Event

Issue a slider event

You should use 'SetWebSliderEvent' command instead of 'SetZoomCtrl' for zooming with slide bar. You get maximum speed of zoom.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetWebSliderEvent	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
Kind	String	Kind of Slider event									
		"ZoomBar"	Yes	No	Yes						
Position	Integer	"IrisBar"	No	Yes	Yes						
		Slider event									
		ZoomBar 0~499:Zoom position	Yes	No	Yes						
		IrisBar 0~255:Iris position	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "SetWebSliderEvent",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Kind": "ZoomBar",
      "Position": 73
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetWebSliderEvent	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetWebSliderEvent",
    "Result": "Success"
  }
}
```

3.3.8. Set Web XYField Event

Issue a two-dimensional slider event

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetWebXYFieldEvent	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
Kind	String	Kind of XYField event "WhPaintRB":White paint R and B	Yes								
XPosition	Integer	XYField event WhPaintRB "0"~"64" (White paint B position)	Yes								
YPosition	Integer	XYField event WhPaintRB "0"~"64" (White paint R position)	Yes								

Example

```
{
  "Request": {
    "Command": "SetWebXYFieldEvent",
    "SessionID": "7425fbc58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Kind": "WhPaintRB",
      "XPosition": 32,
      "YPosition": 32
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetWebXYFieldEvent	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{
  "Response": {
    "Requested": "SetWebXYFieldEvent",
    "Result": "Success"
  }
}
```

3.3.9. Get GPS Information

Request location information of camera GPS function.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetGPSInfo	Yes	Yes	Yes	No	No	No	Yes	Yes	
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	No	No	No	No	Yes	Yes

Example

```
{
  "Request": {
    "Command": "GetGPSInfo",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetGPSInfo	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Data											
AntennaLevel	String	"None" / "Lost" / "Searching" / "Level1" / "Level2" / "Level3"	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Location	String	"+/-<Latitude>" +/-<Longitude>" +/-<Altitude>"/ Latitude +:North, -:South, 00.00000(min) - 90.00000(max) Longitude +:East, -:West, 000.00000(min) - 179.99999(max) Altitude +, -, 0.00000(min) - 9999999(max)	Yes	Yes	Yes	No	No	No	No	Yes	Yes

*Location data is valid only if AnttennaLevel is "Level1", "Level2", or "Level3".

Example

```
{
  "Response": {
    "Requested": "GetGPSInfo",
    "Result": "Success",
    "Data": {
      "AntennaLevel": "Level3",
      "Location": "+35.360452+138.727820+3775.630"
    }
  }
}
```

3.3.10. Seesaw switch operation

Seesaw switch operation command is changing parameter by a seesaw-swith.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SeesawSwitchOperation	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Params											
Kind	String	Kind of Seesaw event "ZoomSeesaw" / "IrisSeesaw" / "MasterBlackSeesaw" / "FocusSeesaw"	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Direction	String	Zoom operation "Stop" / "Wide" / "Tele" Iris operation "Open" / "Close" / "Stop" MasterBlack operation "Up" / "Down" / "Stop" Focus operation "Far" / "Near" / "Stop"	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Speed	Integer	0 - 8	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes

**"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
  "Request": {
    "Command": "SeesawSwitchOperation",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Kind": "MasterBlack",
      "Direction": "Up",
      "Speed": 5
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SeesawSwitchOperation	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "SeesawSwitchOperation",
    "Result": "Success"
  }
}
```

3.4. PTZ Camera Support Command

3.4.1. Set Pan Tilt Control

Pan / Tilt control command with direct position parameters.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetPTCtrl	No	No	No	No	No	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No	No
Params											
PanDirection	String	"Stop" / "Left" / "Right" / "Home" / "Position"	No	No	No	No	No	No	Yes	No	No
PanPosition	Integer	0(Back left limmit) - 17540(Front) - 35080(Back right limmit) PanPosition is valid when "PanDirection" is "Position".	No	No	No	No	No	No	Yes	No	No
PanSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No	No
TiltDirection	String	"Stop" / "Up" / "Down" / "Home" / "Position"	No	No	No	No	No	No	Yes	No	No
TiltPosition	Integer	0(Just above) - 9040(Just beside) - 12080(Diagonally downward) "TiltPosition" is valid when "TiltDirection" is "Position".	No	No	No	No	No	No	Yes	No	No
TiltSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No	No

**Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
  "Request": {
    "Command": "SetPTCtrl",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "PanDirection": "Left",
      "PanPosition": 32768
      "PanSpeed": 10
      "TiltDirection": "Up",
      "TiltPosition": 32768
      "TiltSpeed": 10
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetPTCtrl	No	No	No	No	No	No	Yes	No	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No	No

Example

```
{  
  "Response": {  
    "Requested": "SetPTCtrl",  
    "Result": "Success"  
  }  
}
```

3.4.2. Joystick Operation

Joystick operation command with direction and speed parameters.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	JoyStickOperation	No	No	No	No	No	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No	No
Params											
PanDirection	String	"Stop" / "Left" / "Right"	No	No	No	No	No	No	Yes	No	No
PanSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No	No
TiltDirection	String	"Stop" / "Up" / "Down"	No	No	No	No	No	No	Yes	No	No
TiltSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No	No

*"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
  "Request": {
    "Command": "JoyStickOperation",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "PanDirection": "Left",
      "PanSpeed": 10
      "TiltDirection": "Up",
      "TiltSpeed": 10
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	JoyStickOperation	No	No	No	No	No	No	Yes	No	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Response": {
    "Requested": "JoyStickOperation",
    "Result": "Success"
  }
}
```

3.4.3. Zoom switch operation

Zoom switch operation command is changing zoom by a seesaw-swth.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	ZoomSwitchOperation	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Params											
Direction	String	"Stop" / "Wide" / "Tele"	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Speed	Integer	0 - 8	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

*"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
  "Request": {
    "Command": "ZoomSwitchOperation",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Direction": "Wide",
      "Speed": 5
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	ZoomSwitchOperation	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "ZoomSwitchOperation",
    "Result": "Success"
  }
}
```

3.4.4. Set Pan / Tilt / Zoom preset

Control pan / tilt / zoom preset position.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetPTZPreset	No	No	No	No	No	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No	No
Params											
No	Integer	1 - 100(Number of preset position)	No	No	No	No	No	No	Yes	No	No
Operation	String	"Move"(Move to preset position) "Set" (Current position is stored) "Delete"(Delete the preset position)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Request": {
    "Command": "SetPTZPreset",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "No": 90,
      "Operation": "Move"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetPTZPreset	No	No	No	No	No	No	Yes	No	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Response": {
    "Requested": "SetPTZPreset",
    "Result": "Success"
  }
}
```

3.4.5. Get camera status (for remote controller)

Request minimum status information of camera function for RM-LP100 and other remote controllers.

It is recommended to use this command every 500 msec or above.

Unnecessary use of this command make performance degradation.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetCamStatusMinimum	No	No	No	No	No	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Request": {
    "Command" : "GetCamStatusMinimum",
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetCamStatusMinimum	No	No	No	No	No	No	Yes	No	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No	No
Data											
Camera		(Camera)									
Status	String	Status "NoCard"(no card inserted) / "Stop"(recording stop) / "Standby"(record standby) / "Rec"(recording)/ "RecPause"(recording pause)	No	No	No	No	No	No	Yes	No	No
VideoOutputStatus	String	"On" / "Off"	No	No	No	No	No	No	Yes	No	No
MenuStatus	String	"On" / "Off"	No	No	No	No	No	No	Yes	No	No
Exposure											
Status	String	"Auto" / "Manual" / "IrisPriority" / "ShutterPriority"	No	No	No	No	No	No	Yes	No	No
Iris											
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No	No
Value	String	Character string for iris value	No	No	No	No	No	No	Yes	No	No
Shutter											
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No	No
Value	String	Character string for Shutter value	No	No	No	No	No	No	Yes	No	No
Gain											
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No	No
Value	String	Character string for gain value	No	No	No	No	No	No	Yes	No	No
AeLevel											
Status	String	"AeOff" / "AeOn"	No	No	No	No	No	No	Yes	No	No
Value	String	Character string for AE level value	No	No	No	No	No	No	Yes	No	No
Whb											
Status	String	"Faw" / "OnePush" / "3200K" / "5600K" / "Manual"	No	No	No	No	No	No	Yes	No	No

		Value	String	Character string for White Balance value	No	No	No	No	No	No	Yes	No	No
		WhPRScale	Integer	Slide bar total length for White paint Red(0-255)	No	No	No	No	No	No	Yes	No	No
		WhPBScale	Integer	Slide bar total length for White paint Blue(0-255)	No	No	No	No	No	No	Yes	No	No
		WhPRPosition	Integer	Slide bar current position for White paint Red(0-255)	No	No	No	No	No	No	Yes	No	No
		WhPBPosition	Integer	Slide bar current position for White paint Blue(0-255)	No	No	No	No	No	No	Yes	No	No
		WhPRValue	String	Character string for White paint Red value	No	No	No	No	No	No	Yes	No	No
		WhPBValue	String	Character string for White paint Blue value	No	No	No	No	No	No	Yes	No	No
		Focus											
		Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No	No
		Value	String	Character string for Focus value	No	No	No	No	No	No	Yes	No	No
		Zoom											
		Position	Integer	Zoom position (0-499)	No	No	No	No	No	No	Yes	No	No
		Detail											
		Value	String	Character string for detail value	No	No	No	No	No	No	Yes	No	No
		Streaming											
		Status	String	Status "Stop"(Streaming has stopped or cannot be started.) / "Stopping"(About to stop.) / "Start"(Streaming has started.) / "Starting"(About to start.) / "Waiting"(Waiting for connection. (for RTSP/RTP)) / "Error" (Error occurred or waiting to start RTSP/RTP streaming)	No	No	No	No	No	No	Yes	No	No
		TallyLamp											
		Priority	String	Priority "Camera" / "Web"	No	No	No	No	No	No	Yes	No	No
		Lighting	String	Lighting "On" / "Off"	No	No	No	No	No	No	Yes	No	No
		StudioTally	String	Status "Off" / "Program" / "Preview"	No	No	No	No	No	No	Yes	No	No
		Enable		(Availability of function button switches)									
		Exposure		(Exposure function)									
		Auto	Integer	button "Atuo" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Manual	Integer	button "Manual" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		ShutterPriority	Integer	button ShutterPriority" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		IrisPriority	Integer	button "IrisPriority" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Iris		(Iris function)									
		Open1	Integer	button ">" switch of iris 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Close1	Integer	button "<" switch of iris 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Gain		(Gain function)									
		Auto	Integer	Display Value of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Manual	Integer	button "MANUAL" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Up1	Integer	button "Up1" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Down1	Integer	button "Down1" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		AeLevel		(AE Level function)									
		Up	Integer	button "▲" switch of AElevel 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Down	Integer	button "▼" switch of AElevel 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Shutter		(Shutter function)									
		Slower	Integer	button "▲" switch of shatter 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No
		Faster	Integer	button "▼" switch of shatter 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No	No

		Whb		(White balance function)											
		Faw	Integer	button "FAW" switch of White balance 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		Manual	Integer	button "MANUAL" switch of White balance 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		OnePush	Integer	button "AWB" switch of White balance 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		K3200	Integer	button "3200K" switch of White balance 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		K5600	Integer	button "5600K" switch of White balance 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		OnePushTrigger	Integer	button "AWB trigger" switch of White balance 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		Focus		(Focus function)											
		Manual	Integer	button "MANUAL" switch of focus 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		Auto	Integer	button "AUTO" switch of focus 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		Detail		(Detail function)											
		Up	Integer	button "ON" switch of Streaming 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		Down	Integer	button "OFF" switch of Streaming 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		Preset		(Availability of preset number)											
		1	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		2	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		• • • • •													
		#	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	
		100	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable		No	No	No	No	No	No	Yes	No	No	

Example

```
{
  "Response": {
    "Requested": "GetCamStatusMinimum",
    "Result": "Success",
    "Data": {
      "Camera": {
        "PowerStatus": "On", "MenuStatus": "On"
      },
      "Exposure": {
        "Status": "Auto"
      },
      "Iris": {
        "Status": "Auto", "Value": "0"
      },
      "Shutter": {
        "Status": "Auto", "Value": "0"
      },
      "Gain": {
        "Status": "Auto", "Value": "0"
      },
      "AeLevel": {
        "Status": "AeOn", "Value": "0"
      }
    }
  }
}
```

```
},
"Whb": {
  "Status": "Faw", "Value": "0",
  "WhPRScale": 0, "WhPBScale": 0,
  "WhPRPosition": 64, "WhPBPosition": 64,
  "WhPRValue": "64", "WhPBValue": "64"
},
"Focus": {
  "Status": "Auto", "Value": "0"
},
"Zoom": {
  "Position": 100
},
"Detail": {
  "Value": "100"
},
"Streaming": {
  "Status": "Stop"
},
"TallyLamp": {
  "Priority": "Camera", "Lighting": "Off"
},
"Enable": {
  "Exposure": {
    "Auto": 1, "Manual": 1, "ShutterPriority": 1, "IrisPriority": 1
  },
  "Iris": {
    "Open1": 1, "Close1": 1
  },
  "Gain": {
    "Auto": 1, "Manual": 1, "Up1": 1, "Down1": 1
  },
  "AeLevel": {
    "Up": 1, "Down": 1
  },
  "Shutter": {
    "Slower": 1, "Faster": 1
  }
},
"Whb": {
  "Faw": 1, "Manual": 1, "OnePush": 1, "K3200": 1, "K5600": 1, "OnePushTrigger": 1
},
"Focus": {
  "Auto": 1, "Manual": 1
},
"Detail": {
  "Up": 1, "Down": 1
},
"Preset": {
  "1": 1, "2": 1, "3": 1, "4": 1, "5": 1, "6": 1, "7": 1, "8": 1, "9": 1, "10": 1,
```

```
"11": 1, "12": 1, "13": 1, "14": 1, "15": 1, "16": 1, "17": 1, "18": 1, "19": 1, "20": 1,  
"21": 1, "22": 1, "23": 1, "24": 1, "25": 1, "26": 1, "27": 1, "28": 1, "29": 1, "30": 1,  
"31": 1, "32": 1, "33": 1, "34": 1, "35": 1, "36": 1, "37": 1, "38": 1, "39": 1, "40": 1,  
"41": 1, "42": 1, "43": 1, "44": 1, "45": 1, "46": 1, "47": 1, "48": 1, "49": 1, "50": 1,  
"51": 1, "52": 1, "53": 1, "54": 1, "55": 1, "56": 1, "57": 1, "58": 1, "59": 1, "60": 1,  
"61": 1, "62": 1, "63": 1, "64": 1, "65": 1, "66": 1, "67": 1, "68": 1, "69": 1, "70": 1,  
"71": 1, "72": 1, "73": 1, "74": 1, "75": 1, "76": 1, "77": 1, "78": 1, "79": 1, "80": 1,  
"81": 1, "82": 1, "83": 1, "84": 1, "85": 1, "86": 1, "87": 1, "88": 1, "89": 1, "90": 1,  
"91": 1, "92": 1, "93": 1, "94": 1, "95": 1, "96": 1, "97": 1, "98": 1, "99": 1, "100": 1,  
},  
},  
}  
}  
}
```

3.4.6. Get Pan & Tilt Positions

Get Pan & Tilt positions

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetPTPosition	No	No	No	No	No	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Request": {
    "Command": "GetPTPosition",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetPTPosition	No	No	No	No	No	No	Yes	No	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No	No
Data											
Pan	Integer	0(Back left limmit) - 17540(Front) - 35080(Back right limmit)	No	No	No	No	No	No	Yes	No	No
Tilt	Integer	0(Just above) - 9040(Just beside) - 12080(Diagonally downward)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Response": {
    "Requested": "GetPTPosition",
    "Result": "Success",
    "Data": {
      "Pan": 17540,
      "Tilt": 9040
    }
  }
}
```

3.5. How to acquire JPEG data

These commands enables to start JPEG encoding and acquire JPEG image data.

'3.5.1 JpegEncode' command with parameter 'Start' can be used to start encoding.

JPEG data is acquired followed by a header in a response for 'get_jpg_cgi' described in '3.5.2 Acquire JPEG data'.

3.5.1. JPEG encode control

Start / stops the encoding function of the camera.

It is necessary to start encoding to acquire JPEG data.

When other users have already used it, it returns disable error. Even in this case, you can acquire JPEG data.

Please be carefully to stop JPEG encoding, because other users may acquire JPEG data.

There is a possibility stop encoding command returns error if another client has already stopped encoding.

In the following cases, you cannot send the command to the camera.

The camera is in Live Streaming mode.

The camera is in IFB Streaming mode.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	JpegEncode	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
Operate	String	"Start" / "Stop"	Yes								

Example

```
{  
  "Request": {  
    "Command": "JpegEncode",  
    "SessionID": "7425fbc58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "Operate": "Start"  
    }  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	JpegEncode	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{  
  "Response": {  
    "Requested": "JpegEncode",  
    "Result": "Success"  
  }  
}
```

3.5.2. Set JPEG encode size

Setting image resolution of acquiring JPEG data.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetJpegEncodeSize	No	No	No	No	No	No	Yes	No	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No	No
Params											
Size	String	"640x360" / "320x181"	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Request": {
    "Command": "SetJpegEncodeSize",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Size": "320x180"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetJpegEncodeSize	No	No	No	No	No	No	Yes	No	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No	No

Example

```
{
  "Response": {
    "Requested": "SetJpegEncodeSize",
    "Result": "Success"
  }
}
```

3.5.3. Acquire JPEG data

You can acquire JPEG image followed by a header when accessing to the URL below.

Content type of the response is image/jpeg.

Access format

<code>http://<ip address>/cgi-bin/get_jpg.cgi?SessionID=<Session ID in cookie.></code>	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
--	-------	-------	-------	-------	-------	-------	-------	-------	-------

<code>http://<ip address>/cgi-bin/get_jpg.cgi?SessionID=<Session ID in cookie.></code>	Yes								
--	-----	-----	-----	-----	-----	-----	-----	-----	-----

Request

HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
-------	-------	-------	-------	-------	-------	-------	-------	-------

<code>GET /cgi-bin/get_jpg.cgi?SessionID=<Session ID in cookie.> HTTP/1.1\r\n</code>	Yes							
--	-----	-----	-----	-----	-----	-----	-----	-----

Response

HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
-------	-------	-------	-------	-------	-------	-------	-------	-------

<code>HTTP 1.1 200 OK\r\nContent-type: image/jpeg\r\nPragma: no-cache\r\nCache-Control: no-cache\r\nExpires: Thu, 01 Jan 1970 00:00:00 GMT\r\nContent-Length: 32906\r\nDate: Wef, 07 Jan 2015 23:28:58 GMT\r\nServer: Camera\r\n\r\n.....Data of Jpeg file follows after this.</code>	Yes							
---	-----	-----	-----	-----	-----	-----	-----	-----

<code>HTTP 1.1 200 OK\r\nContent-type: image/jpeg\r\nPragma: no-cache\r\nCache-Control: no-cache\r\nExpires: Thu, 01 Jan 1970 00:00:00 GMT\r\nContent-Length: 32906\r\nDate: Wef, 07 Jan 2015 23:28:58 GMT\r\nServer: Camera\r\n\r\n.....Data of Jpeg file follows after this.</code>	Yes							
---	-----	-----	-----	-----	-----	-----	-----	-----

3.6. How to use Interruptible Feedback Function

These commands enables to use interruptible feedback(IFB) function.
IFB is used for returning audio to the camera from the controller.

3.6.1. Get interruptible feedback settings

Get IFB function parameters.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetIFBSettings	No	Yes	Yes	No	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Request": {
    "Command": "GetIFBSettings",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetIFBSettings	No	Yes	Yes	No	No	No	No	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	No	No	No	No	No	No
Data											
Function	String	Switch to enable IFB function. "Enable" / "Disable"	No	Yes	Yes	No	No	No	No	No	No
Address	String	Address of IFB server. "xxx.xxx.xxx.xxx"	No	Yes	Yes	No	No	No	No	No	No
Port	Integer	Port of IFB server. 1 - 65535	No	Yes	Yes	No	No	No	No	No	No
Mountpoint	String	Mountpoint on IFB server. Max 62 characters.	No	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Response": {
    "Requested": "GetIFBSettings",
    "Result": "Success",
    "Data": {
      "Function": "Enable",
      "Address": "192.168.0.11",
      "Port": 5000,
      "Mountpoint": "DB90TX"
    }
  }
}
```

3.6.2. Set interruptible feedback settings

Set IFB function parameters. It is necessary to use return audio at camera.

This command enables / disables the IFB function of the camera.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetIFBSettings	No	Yes	Yes	No	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	No	No	No	No	No	No
Params											
Function	String	Switch to enable IFB function. "Enable" / "Disable"	No	Yes	Yes	No	No	No	No	No	No
Address	String	Address of IFB server. "xxx.xxx.xxx.xxx"	No	Yes	Yes	No	No	No	No	No	No
Port	Integer	Port of IFB server. 1 - 65535	No	Yes	Yes	No	No	No	No	No	No
Mountpoint	String	Mountpoint on IFB server. Max 62 characters.	No	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Request": {
    "Command": "SetIFBSettings",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Function": "Enable",
      "Address": "192.168.0.11",
      "Port": 5000,
      "Mountpoint": "DB90TX"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetIFBSettings	No	Yes	Yes	No	No	No	No	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Response": {
    "Requested": "SetIFBSettings",
    "Result": "Success"
  }
}
```

3.6.3. Set interruptible feedback streaming control

This command is used to start/stop IFB streaming

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetIFBCtrl	No	Yes	Yes	No	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	No	No	No	No	No	No
Params											
Streaming	String	Streaming Control "Start":start streaming / "Stop":stop streaming	No	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Request": {
    "Command": "SetIFBCtrl",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Streaming": "Start"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetIFBCtrl	No	Yes	Yes	No	No	No	No	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Response": {
    "Requested": "SetIFBCtrl",
    "Result": "Success"
  }
}
```

3.7. How to control Studio Tally System

"SetStudioTally" command indicates tally condition to the camera and it displays "PGM" or "PVW" on the LCD

Menu settings on the camera which affects tally lamp control are as follows.

On the studio tally system described in this chapter, "SetTally LampCtrl" command should not be used.

"SetStudioTally" and "SetTallyLampPriority" commands can control studio tally system.

From Web API version 1.07, alarm indication on the camera itself has highest priority compared with all other tally control via web interface.

Menu settings on HM660/HM200/HM25x/PZ100

System...

Tally Lamp

Off, Rec, Live Streaming, Rec/Live Streaming, **External***

Menu settings on HM8x0

System...

Tally System

Studio*,Internal

If the Tally System setting is "Studio".

System...

Front Tally

Off, **On***

Back Tally

Off, **On***

* Tally lamp is controlled by Web API when selected.

3.7.1. Studio tally control

This command controls studio tally indication.

Turning on/off the tally lamp depends on camera settings.

Refer to "3.7.4. Relation of commands on Studio tally system" about Tally lamp control.

"SetStudioTally" should be used only when changing the tally state, otherwise it causes performance degradation.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetStudioTally	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Params											
Indication	String	"Off"(not Indicate status on LCD) / "Program"(Indicate PGM on LCD) / "Preview"(Indicate PVW on LCD)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{
  "Request": {
    "Command": "SetStudioTally",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "Indication": "Program"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetStudioTally	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "SetStudioTally",
    "Result": "Success"
  }
}
```

3.7.2. Set tally lamp priority

Set indication priority setting of the tally lamp.

You should set tally lamp priority to "Web" before using the tally lamp via API.

Menu setting on the camera is fixed to "External/Studio" when setting changed priority to "Web" and cannot change it.

It becomes changeable when priority setting is "Camera".

This command should be used only when the tally lamp status need to be changed, otherwise it causes performance degradation.

'SetTallyLampPriority' changes camera setting as follows.

Camera stores prior state before switching to the "Web" priority and it resumes former state when you return the priority to "Camera".

HM660/HM200/HM25x/PZ100/HC5x0

This setting becomes "External" when the priority is set to "Web".

System...
Tally Lamp
Off, Rec, Live Streaming, Rec/Live Streaming, External

HM8x0/HC900

This setting becomes "Studio" when the priority is set to "Web".

System...
Tally System
Studio ,Internal

This setting becomes "On" when the priority is set to "Web".

System...
Front Tally
Off, Rec, Live Streaming, Rec/Live Streaming*
Off, On
Back Tally
Off, Rec, Live Streaming, Rec/Live Streaming*
Off, On

* If the Tally System setting is "Internal".

** If the Tally System setting is "Studio".

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetTallyLampPriority	Yes								
SessionID	String	(Session ID in cookie.)	Yes								
Params											
Priority	Integer	"Camera"(Camera is given priority of control.) / "Web"(Web is given priority of control.)	Yes								
			Yes								

Example

```
{  
  "Request": {  
    "Command": "SetTallyLampPriority",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
    "Params": {  
      "Priority": "Camera"  
    }  
  }  
}
```

Response

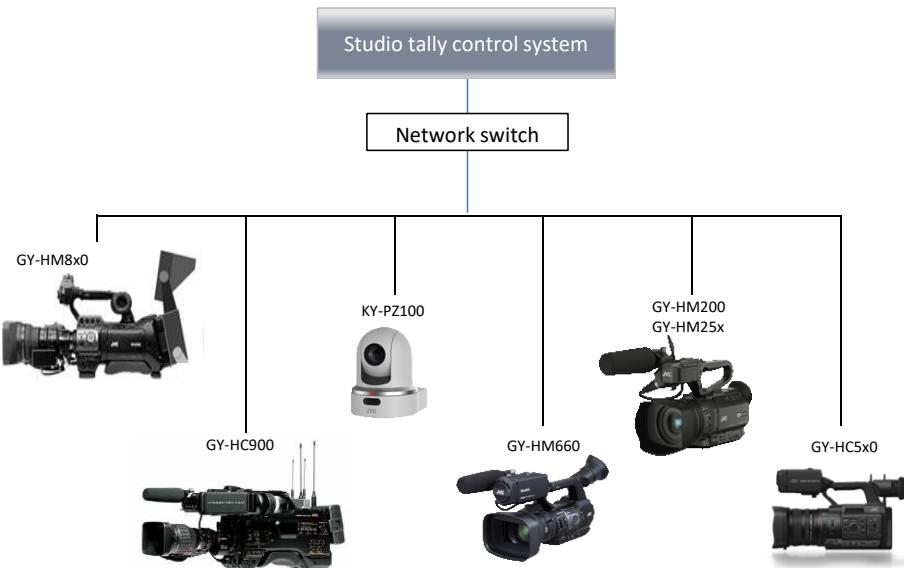
Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetTallyLampPriority	Yes								
Result	String	(Result of command processing.)	Yes								

Example

```
{  
  "Response": {  
    "Requested": "SetTallyLampPriority",  
    "Result": "Success"  
  }  
}
```

3.7.3. Relation of commands on Studio tally system

System Chart



LED lighting of each model

TallyLampPriority	StudioTally	Settings	front	back	KY-PZ100	GY-HM660 GY-HM200 GY-HM25x GY-HC5x0
Web	Program	External or Studio				
	Preview	External or Studio				
	Off	External or Studio				
Camera	Program	External or Studio				
		other				
	Preview	External or Studio				
		other				
	Off	External or Studio				
		other				

LCD indication of each model

TallyLampPriority	StudioTally	GY-HM8x0 GY-HC900	KY-PZ100	GY-HM660 GY-HM200 GY-HM25x GY-HC5x0
Any time	Program			
	Preview			
	Off			

LCD indication image



3.7.4 Sequence of studio tally system



* "GetCamStatusMinimum" command can be used to acquire the status as well on KY-PZ100.

3.8. Return over IP Command

These commands enables to use Return over IP function.

Zixi and SRT streaming modes are mutually exclusive on GY-HC5x0 and GY-HC900.

Only "Zixi" or "Srt" parameter is effective according to the streaming mode.

Current mode can be checked using GetSystemInfo response.

3.8.1. GetCurrentReturnOverIpServerID

Get current server ID for Return over IP function.

There are four server settings for Return over IP.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetCurrentReturnOverIpServerID	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						

Example

```
{  
  "Request": {  
    "Command": "GetCurrentReturnOverIpServerID",  
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
  }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetCurrentReturnOverIpServerID	No	Yes	Yes						
Result	String	(Result of command processing.)	No	Yes	Yes						
Data											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	No	Yes	Yes						

Example

```
{  
  "Response": {  
    "Requested": "GetCurrentReturnOverIpServerID",  
    "Result": "Success",  
    "Data": {  
      "ID": 0  
    }  
  }  
}
```

3.8.2. SetCurrentReturnOverIpServerID

Set current server ID for Return over IP function.

Choose the server ID to use in Return over IP function.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetCurrentReturnOverIpServerID	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "SetCurrentReturnOverIpServerID",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 0
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetCurrentReturnOverIpServerID	No	Yes	Yes						
Result	String	(Result of command processing.)	No	Yes	Yes						

Example

```
{
  "Response": {
    "Requested": "SetCurrentReturnOverIpServerID",
    "Result": "Success"
  }
}
```

3.8.3. GetReturnOverIpServerSettings

Get Return over IP settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	GetReturnOverIpServerSettings	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						
Params											
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "GetReturnOverIpServerSettings",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	GetReturnOverIpServerSettings	No	Yes	Yes						
Result	String	(Result of command processing.)	No	Yes	Yes						
Data											
Alias	String	(Another name of server)	No	Yes	Yes						
Type	String	"RTSP/RTP"/ "Icecast"	No	Yes	Yes						
RTSP/RTP		(Selected by Type)									
Protocol	String	"UDP"/"TCP"	No	Yes	Yes						
SrcAddress	String	(IP address)	No	Yes	Yes						
SrcPort	Integer	(Port number)	No	Yes	Yes						
StreamId	String	(Stream ID)	No	Yes	Yes						
Username	String	(User name)	No	Yes	Yes						
Password	String	(Password for RTSP/RTP)	No	Yes	Yes						
Resolution	integer	0:1280x720	No	Yes	Yes						
FrameRate	integer	1:60p, 2:30p, 4:50p, 5:25p	No	Yes	Yes						
Zixi		(Selected by Type)									
SrcAddress	string	(IP address)	No	Yes	Yes						
SrcPort	integer	(Port number)	No	Yes	Yes						
StreamId	string	(Stream ID for ZIXI)	No	Yes	Yes						
Password	string	(Password for ZIXI)	No	Yes	Yes						
Name	string	(Name for ZIXI)	No	Yes	Yes						
Latency	integer	0:Off, 1:Low, 2: Medium	No	Yes	Yes						
Resolution	integer	0:1280x720	No	Yes	Yes						
FrameRate	integer	1:60p, 2:30p, 4:50p, 5:25p	No	Yes	Yes						

		(Selected by Type)								
	SrcAddress	String (IP address)	No	No	No	No	No	No	Yes	Yes
	SrcPort	Integer (Port number)	No	No	No	No	No	No	Yes	Yes
	Mountpoint	String (Mountpoint)	No	No	No	No	No	No	Yes	Yes

Example

```
{
  "Response": {
    "Requested": "GetReturnOverIpServerSettings",
    "Result": "Success",
    "Data": {
      "Alias": "Server1",
      "Type": "RTSP",
      "Rtsp": {
        "Protocol": "UDP",
        "SrcAddress": "192.168.0.1",
        "SrcPort": 6504
        "StreamId": "HC900-1234",
        "Username": "Jvckenwood",
        "Password": "abcdefghijkl"
      }
    }
  }
}
```

3.8.3.1. AvailableTypeOfReturnOverIP

Get Available type.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	AvailableTypeOfReturnOverIP	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "AvailableTypeOfReturnOverIP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	AvailableTypeOfReturnOverIP	No	Yes	Yes						
Result	String	(Result of command processing.)	No	Yes	Yes						
Data											
AvailableType			No	Yes	Yes						
RTSP/RTP	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						
Icecast	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						
Zixi"	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						

Example

```
{
  "Response": {
    "Requested": "AvailableTypeOfReturnOverIP",
    "Result": "Success",
    "Data": {
      "AvailableType": {
        "RTSP/RTP": 1,
        "Icecast": 1,
        "Zixi": 0
      }
    }
  }
}
```

3.8.3.2. AvailableFrameRateOfReturnOverIP

Get available frame rate.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	AvailableFrameRateOfReturnOverIP	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						
Params											
RecordingFrameRate	String	"60p" / "50p" / "60i" / "50i" / "30p" / "25p"	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "AvailableFrameRateOfReturnOverIP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "RecordingFrameRate": "60p"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	AvailableFrameRateOfReturnOverIP	No	Yes	Yes						
Result	String	(Result of command processing.)	No	Yes	Yes						
Data											
RecordingFrameRate	String	"60p" / "50p" / "60i" / "50i" / "30p" / "25p"	No	Yes	Yes						
AvailableFrameRate			No	Yes	Yes						
"60p"	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						
"30p"	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						
"50p"	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						
"25p"	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes						

Example

```
{
  "Response": {
    "Requested": "AvailableFrameRateOfReturnOverIP",
    "Result": "Success",
    "Data": {
      "RecordingFrameRate": "60p",
      "AvailableFrameRate": {
        "60p": 1,
        "30p": 1,
        "50p": 0,
        "25p": 0
      }
    }
  }
}
```

3.8.4. SetReturnOverIpServerSettingsRTSP

Set Return over IP settings for each server ID.

This command is used for RTSP/RTP protocol.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetReturnOverIpServerSettingsRTSP	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						
Params											
ID	Integer	0:server1, 1:server2, 2:server3, 3: server4	No	Yes	Yes						
Alias	String	(Another name of server)	No	Yes	Yes						
Protocol	String	"UDP"/"TCP"	No	Yes	Yes						
SrcAddress	String	(IP address)	No	Yes	Yes						
SrcPort	Integer	(Port number)	No	Yes	Yes						
StreamId	String	(Stream ID)	No	Yes	Yes						
Username	String	(User name)	No	Yes	Yes						
Password	String	(Password for RTSP/RTP)	No	Yes	Yes						
FrameRate	Integer	1:60p, 2:30p, 4:50p, 5:25p	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "SetReturnOverIpServerSettingsRTSP",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "Protocol": "UDP",
      "SrcAddress": "192.168.0.1",
      "SrcPort": 6504
      "StreamId": "HC900-1234",
      "Username": "Jvckenwood",
      "Password": "abcde"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetReturnOverIpServerSettingsRTSP	No	No	No	No	No	No	Yes	Yes	
Result	String	(Result of command processing.)	No	Yes	Yes						

Example

```
{  
  "Response": {  
    "Requested": "SetReturnOverIpServerSettingsRTSP",  
    "Result": "Success"  
  }  
}
```

3.8.5. SetReturnOverIpServerSettingsZIXI

Set Return over IP settings for each server ID.

This command is used for Zixi protocol.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetReturnOverIpServerSettingsZIXI	No	No	No	No	No	No	Yes	Yes	
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	Yes	
Params											
ID	Integer	0:server1, 1:server2, 2:server3, 3:server4	No	No	No	No	No	No	Yes	Yes	
Alias	String	(Another name of server)	No	No	No	No	No	No	Yes	Yes	
SrcAddress	String	(IP address)	No	No	No	No	No	No	Yes	Yes	
SrcPort	Integer	(Port number)	No	No	No	No	No	No	Yes	Yes	
StreamId	String	(Stream ID for ZIXI)	No	No	No	No	No	No	Yes	Yes	
Password	String	(Password for ZIXI)	No	No	No	No	No	No	Yes	Yes	
Name	String	(Name for ZIXI)	No	No	No	No	No	No	Yes	Yes	
Latency	Integer	0:Low, 1:Medium, 2:Minimum(Zixi OFF), 3:High	No	No	No	No	No	No	Yes	Yes	
FrameRate	Integer	1:60p, 2:30p, 4:50p, 5:25p	No	No	No	No	No	No	Yes	Yes	

Example

```
{
  "Request": {
    "Command": "SetReturnOverIpServerSettingsZIXI",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "SrcAddress": "192.168.0.1",
      "SrcPort": 2088,
      "StreamId": "HM650-1234",
      "Password": "abcde",
      "Name": "JvcKenwood",
      "Latency": 0
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetReturnOverIpServerSettingsZIXI	No	No	No	No	No	No	Yes	Yes	
Result	String	(Result of command processing.)	No	Yes	Yes						

Example

```
{  
  "Response": {  
    "Requested": "SetReturnOverIpServerSettingsZIXI",  
    "Result": "Success"  
  }  
}
```

3.8.6. SetReturnOverIpServerSettingsIcecast

Set Return over IP settings for each server ID.
This command is used for Icecast protocol.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetReturnOverIpServerSettingsIcecast	No	Yes	Yes						
SessionID	String	(Session ID in cookie.)	No	Yes	Yes						
Params											
ID	Integer	0:server1, 1:server2, 2:server3, 3:server4	No	Yes	Yes						
Alias	String	(Another name of server)	No	Yes	Yes						
SrcAddress	String	(IP address)	No	Yes	Yes						
SrcPort	Integer	(Port number)	No	Yes	Yes						
Mountpoint	String	(Mountpoint)	No	Yes	Yes						

Example

```
{
  "Request": {
    "Command": "SetReturnOverIpServerSettingsIcecast",
    "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",
    "Params": {
      "ID": 1,
      "Alias": "Server1",
      "SrcAddress": "192.168.0.1",
      "SrcPort": 6504,
      "Mountpoint": "abcdefg"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetReturnOverIpServerSettingsIcecast	No	Yes	Yes						
Result	String	(Result of command processing.)	No	Yes	Yes						

Example

```
{
  "Response": {
    "Requested": "SetReturnOverIpServerSettingsIcecast",
    "Result": "Success"
  }
}
```

3.8.7. SetReturnOverIpCtrl

This command is used to start/stop Return over IP.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Request											
Command	String	SetReturnOverIpCtrl	No	No	No	No	No	No	Yes	Yes	
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	Yes	
Params											
Operate	String	Streaming Control "Start":start Return over IP / "Stop":stop Return over IP	No	No	No	No	No	No	Yes	Yes	

Example

```
{  
    "Request": {  
        "Command": "SetReturnOverIpCtrl",  
        "SessionID": "7425fbcb58ee4d15dd4c1f5ace4299a3",  
        "Params": {  
            "Operate": "Start"  
        }  
    }  
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900	HC5x0
Response											
Requested	String	SetReturnOverIpCtrl	No	No	No	No	No	No	Yes	Yes	
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	Yes	

Example

```
{  
    "Response": {  
        "Requested": "SetReturnOverIpCtrl",  
        "Result": "Success"  
    }  
}
```