

HD/4K Integrated Camera Interface Specifications

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Panasonic Corporation**

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1. Introduction

This manual describes the external interface specifications which are applicable when the HD integrated camera is operated using Ethernet.

It consists of three main sections, namely, camera and pan-tilt head control, camera information update notifications and error return.

Applicable models

• AW-HE50 series^{*1}, AW-HE120 series, AW-HE60 series, AW-HE130 series

AW-HE70 series^{*2}, AW-UE70 series, AW-HE42 series

AK-UB300 series, AW-HR140 series, AW-UE150 series

*1 The functions indicated as "Ver.2" in the text can be used when the activation process has been completed after the upgrade kit (AW-HEF5) is applied.

*2 In the text, that indicates "SFU01", is a feature that can be used when AW-SFU01 is activated.

The AW-HE70, AW-UE70, and AW-HE75 are listed as representative models because following series are handled by same AW commands.

UE150 series

AW- UE150/AW-UE155/AW-UN145

HE40 series

AW-HE70/AW-HE40/AW-HE65 Ver1.32~

AW-HE48/AW-HE58

AW-HE35/AW-HE38

AW-HN38/AW-HN40/AW-HN65/AW-HN70

UE70 series

AW-UE70 Ver1.04~

AW-UN70

AW-UE65/AW-UE63

HE42 series

AW-HE75/AW-HE42/AW-HE68

2. Configuration outline

This manual has the following general configuration.

① Camera and pan-tilt head control

It is possible to control the pan, tilt and white balance adjustments.

It is also possible to acquire the gain and other camera information by initiating queries.

The various functions are employed for the operations with the camera using HTTP which is the host protocol of TCP.

For further details, refer to chapter 3.

② Camera information update notification

The local terminal is notified of the values of the gain and other settings which have been changed at another terminal or other terminals so that it can acquire the camera information.

This feature is useful when one camera is controlled by a multiple number of terminals, and when the setting for enabling update notifications to be received has been established, the information which has been changed by other terminals can be acquired.

For further details, refer to chapter 4.

③ Camera information batch acquisition

The camera information can be acquired in batch form. Since there is no need to query each and every camera information item when this feature is used, the feature is useful when all the camera information is required such as at startup.

For further details, refer to chapter 5.

④ Error return

An error — whether ER1, ER2 or ER3 — is returned when an error has been generated by a command in ① above or when the AWB result contains an error.

For further details, refer to chapter 6.

3. Camera and pan-tilt head control

Given below are the external interfaces which are used when operating the camera using Ethernet. This chapter presents the following details.

① Pan-tilt head control

This interface controls the pan-tilt head, and it uses the “pan-tilt head control commands”.

② Camera control

This interface is concerned with the camera’s lens control and image adjustments, and it uses the “camera control commands”.

3.1. Pan-tilt head control

The pan-tilt head control commands are in compliance with the HTTP1.1 communication specifications. Their format is given below.

For details on the HTTP messages, refer to <Appendix>.

【Command format】

[Send]

http://[IP Address]/cgi-bin/aw_ptz?cmd=[Command]&res=[Type]

where

※IP Address..... IP address of camera at connection destination

※Command..... Details given in “Command” column in the command tables below

※Type..... Fixed at “1”

[Receive]

200 OK “Command”

※Command..... Response value of each command; set in the HTTP message body

Example: Pan/tilt (Stop)

[Send]

http://192.168.0.10/cgi-bin/aw_ptz?cmd=#PTS5050&res=1

[Receive]

200 OK “pTS5050”

※Depending on the browser or middleware used, “#” may have to be converted to "%23" by ASCII conversion.

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS5050&res=1

Given below is the communication sequence which accords with the command format presented on the previous page.

For the communication sequence of the errors generated in response to commands which have been sent, refer to “6. Error return”.

【Sequence】

“PC1” is the control terminal in the sequence below.

Example: Pan/tilt (Stop) control

Camera IP Address = 192.168.0.10

Command = PTS5050

The control to stop the pan-tilt operation is exercised from PC1. [200 OK “pTS5050”] is returned as the response from the camera.

The control command and query command are available as the pan-tilt head control commands. Given below is the command sequence.

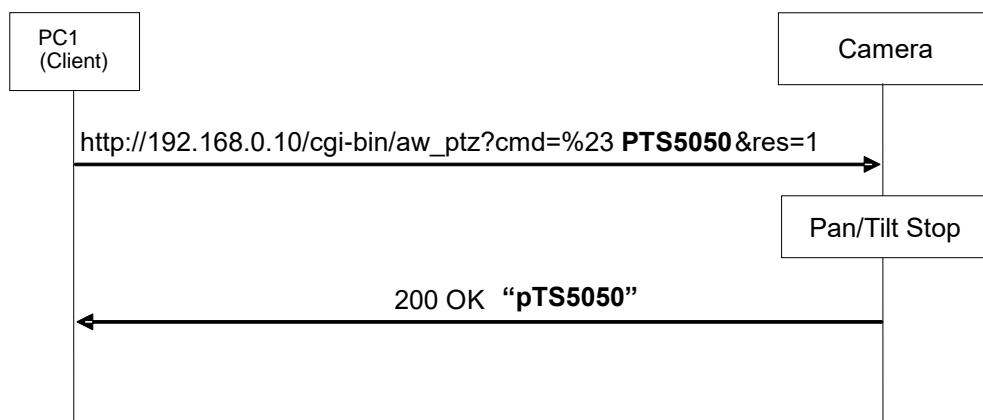


Fig.3.1-1 Command sequence of pan-tilt head control

It must be borne in mind that communication with the camera is subject to some restrictions. These restrictions are as follows.

【Restrictions】

- When using the pan-tilt head control commands, send the commands with a gap of 130 ms between each command. Given below is the sequence.

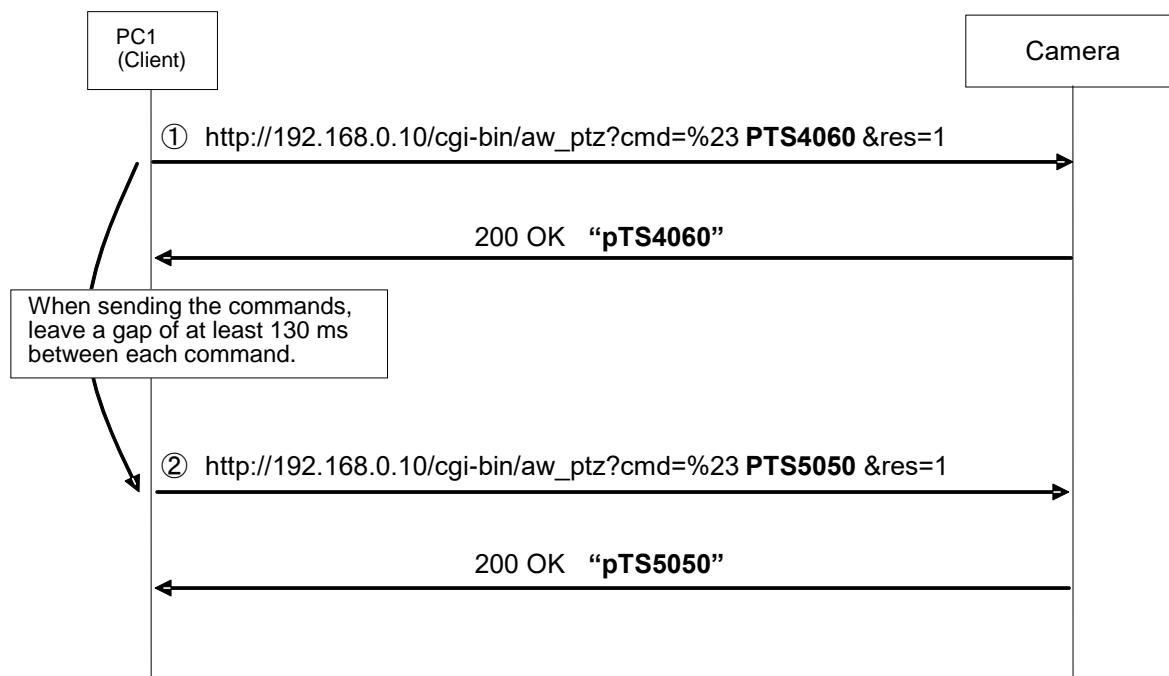


Fig.3.1-2 Restrictions

- The number of sessions during which the camera can be accessed simultaneously is as follows.
 - Maximum number of HTTP sessions: 72
 - Number of terminals which can receive update notifications at the same time: 5
When the AW-RP50 is connected, it is counted as one unit.
- Keep-Alive cannot be set with HTTP connections.
Connect and disconnect are performed each time a command is sent or received.
- Some settings and conditions may restrict the effects of other settings (※ including those with exclusive control conditions). See also the operating instructions which are provided with the products.
- Send the commands which change the settings only at the point in time when the changes are required. (Do not send them at regular intervals.)
※ The applicable models incorporate an EEPROM for storing the settings, and each time a command that changes the settings is received, data is written in the EEPROM. The number of times data can be written in the EEPROM is limited so if data is sent frequently, the model will cease to operate normally when the maximum number of times for writing the data has been reached.

3.1.1. Power On/Standy

These commands enable the power On/Standy of the camera to be controlled and the current power On/Standy statuses to be acquired.

Table 3.1.1. Power On/Standy

Command name	Category	Command	Data value	Setting	Remarks
Power On/ Standby control command	Control	#O[Data]	0 f 1 n	Standby Standby Power On Power On	※ Not supported by the AK-UB300.
	Response	p[Data]			
Power On/ Standby query command	Request	#O	None		
	Response	p[Data]	0 1	Standby Power On	※ Not supported by the AK-UB300.
			3	Transferring from Standby to ON	

Example of use) Power: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23O1&res=1

[Response] AW-HE50 → PC

200 OK "p1"

3.1.2. Installation and smart picture flip commands

These commands control the method used for the installation of the camera (stand-alone or suspended) and smart picture flip, and they enable the current installation and smart picture flip settings to be acquired.

Table 3.1.2. Installation position

Command name	Category	Command	Data value	Setting	Remarks
Installation position control command	Control	#INS[Data]	0 1	Desktop Hanging	※ Not supported by the AK-UB300.
	Response	iNS[Data]			
Installation position query command	Request	#INS	None	Desktop Hanging	※ Not supported by the AK-UB300.
	Response	iNS[Data]	0 1		
Smart picture flip Auto/Off control command	Control	#SPF[Data]	0 1	Off Auto	<ul style="list-style-type: none"> This command enables smart picture flip to be set to Auto or Off Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-UE150.
	Response	sPF[Data]			
Smart picture flip Auto/Off query command	Request	#SPF	None	Off Auto	Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-UE150.
	Response	sPF[Data]	0 1		
Smart picture flip angle setting control command	Control	#FDA[Data]	3Ch ` 78h	60degree ` 120degree	<ul style="list-style-type: none"> This command enables the angle of smart picture flip to be set. Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-UE150.
	Response	fDA[Data]			
Smart picture flip angle setting query command	Request	#FDA	None	60degree ` 120degree	Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-UE150.
	Response	fDA[Data]	3Ch ` 78h		

Example of use)

- Installation position: Desktop

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23INS0&res=1

[Response] AW-HE50 → PC

200 OK "iNS0"

- Smart picture flip: Auto

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23SPF1&res=1

[Response] AW-HE120 → PC

200 OK "sPF1"

- Smart picture flip angle: 60deg

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23FDA3C&res=1

[Response] AW-HE120 → PC

200 OK "fDA3C"

3.1.3. Pan/tilt

These commands enable the pan and tilt of the pan-tilt head of the camera to be controlled and the current position information and operating speed to be acquired.

Table 3.1.3. Pan/tilt

Command name	Category	Command	Data value	Setting	Remarks
Pan/tilt position control command (specify an absolute value)	Control	#APC[Data1][Data2]	[Data1] 0000h ↳ 8000h ↳ FFFFh [Data2] 0000h ↳ 8000h ↳ FFFFh	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit center downLimit	<ul style="list-style-type: none"> The pan-tilt head moved to the home position by #APC[8000][8000]. Pan(-175) – (+175)deg 2D09 – D2F5 In the case of the AW-HE50/AW-HE60/AW-HE40 /AW-UE70/AW-HE42. Tilt(-30) – (+90)deg 5555 – 8E38 In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150 Tilt(-30) – (+210)deg 1C71 – 8E38 The resolution is calculated to be 29.7 sec. <p>※ Not supported by the AK-UB300.</p>
		aPC[Data1][Data2]			
Pan/tilt position query command (specify an absolute value)	Request	#APC	None		※ Not supported by the AK-UB300.
	Response	aPC[Data1][Data2]	[Data1] 0000h ↳ 8000h ↳ FFFFh [Data2] 0000h ↳ 8000h ↳ FFFFh	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit center downLimit	
Pan/tilt position/speed control command (specify an absolute value)	Control	#APS[Data1][Data2] [Data3][Data4]	[Data1] 0000h ↳ 8000h ↳ FFFFh [Data2] 0000h ↳ 8000h ↳	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit center	<p>※ Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150.</p> <ul style="list-style-type: none"> The pan-tilt head is moved to the home position by #APC[8000][8000]. <p>For range, refer to #APC.</p>
	Response	aPS[Data1][Data2] [Data3][Data4]	FFFFh [Data3] 00h ↳ 1Dh [Data4] 0 2	downLimit [Data3]Pst Spd 1 ↳ 30 [Data4]Spd Tbl SLOW FAST	

Command name	Category	Command	Data value	Setting	Remarks
Pan/tilt position control command (specify an relative value)	Control	#RPC[Data1][Data2]	[Data1] 0000h ↳ 8000h ↳ FFFFh [Data2] 0000h ↳ 8000h ↳ FFFFh	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit center downLimit	※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150. • The pan-tilt head is moved to the current position by #RPC[8000][8000] For range, refer to #APC.
	Response	rPC[Data1][Data2]			
Pan/tilt position/speed control command (specify an relative value)	Control	#RPS[Data1][Data2] [Data3][Data4]	[Data1] 0000h ↳ 8000h ↳ FFFFh [Data2] 0000h ↳ 8000h ↳ FFFFh [Data3] 00h ↳ 1Dh [Data4] 0 1 2	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit center downLimit [Data3]Pst Spd 1 ↳ 30 [Data4]Spd Tbl SLOW MID FAST	※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150. • The pan-tilt head is moved to the current position by #RPS[8000][8000][0][0] For range, refer to #APC.
	Response	rPS[Data1][Data2] [Data3][Data4]			
Speed (pan/tilt) control command	Control	#P[Data]	01 ↳ 49 50 51 ↳ 99	Left Max. Speed ↳ Left Min. Speed Pan Stop Right Min. Speed ↳ Right Max. Speed	Pan speed to be controlled ※ Not supported by the AK-UB300.
	Response	pS[Data]			
	Control	#T[Data]	01 ↳ 49 50 51 ↳ 99	Down Max. Speed ↳ Down Min. Speed Tilt Stop UP Min. Speed ↳ UP Max. Speed	Tilt speed to be controlled ※ Not supported by the AK-UB300.
	Response	tS[Data]			

Command name	Category	Command	Data value	Setting	Remarks
Speed (pan/tilt) control command	Control	#PTS[Data1][Data2]	[Data1] 01 ` 49 50 51 ` 99 [Data2] 01 ` 49 50 51 ` 99	[Data1] Left Max. Speed ` Left Min. Speed Pan Stop Right Min. Speed ` Right Max. Speed [Data2] Down Max. Speed ` Down Min. Speed Tilt Stop UP Min. Speed ` UP Max. Speed	[Data1] Pan speed control [Data2] Tilt speed control
		pTS[Data1][Data2]			※ Not supported by the AK-UB300.

Example of use)

· Camera control: PAN= 8000, TILT= 8000 (Home position)

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23APC80008000&res=1

[Response] AW-HE50 → PC

200 OK "aPC80008000"

· Pan speed control: max. speed to the right

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23P99&res=1

[Response] AW-HE50 → PC

200 OK "pS99"

· Tilt speed control: max. speed downward

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23T01&res=1

[Response] AW-HE50 → PC

200 OK "tS01"

· Pan/tilt speed control: max. speed to the left, max. speed upward

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS0199&res=1

[Response] AW-HE50 → PC

200 OK "pTS0199"

3.1.4. Movement range limit On/Off

These commands enable the movement range settings (limiter settings) for the pan and tilt of the camera and the information of the current movement range limits to be acquired.

Up, down, left and right limits can be set.

Table 3.1.4. Movement range limit On/Off

Command name	Category	Command	Data value	Setting	Remarks
Movement range limit On/Off control command	Control	#LC[Data1] [Data2]	[Data1] 1 2 3 4 [Data2] 0 1	[Data1] Up Down Left Right [Data2] Release Set	The directions in which the movement range is to be limited are controlled, and limit set or release is controlled. [Data1] Control in the movement range limit direction [Data2] Limit set/release ※ Not supported by the AK-UB300.
		IC[Data1][Data2]			
	Control	#L[Data]	1 2 3 4	Up Down Left Right	The direction in which the movement range is to be limited is controlled. • Operation toggles between set and release. ※ Not supported by the AK-UB300.
	Response	I [Data]	0 1	Release Set	Limit set/release ※ Not supported by the AK-UB300.
Movement range limit On/Off query command	Request	#LC[Data]	1 2 3 4	Up Down Left Right	※ Not supported by the AK-UB300.
	Response	IC[Data1][Data2]	[Data1] 1 2 3 4 [Data2] 0 1	[Data1] Up Down Left Right [Data2] Release Set	[Data1] Control in the movement range limit direction [Data2] Limit set/release ※ Not supported by the AK-UB300.

Example of use)

• Setting the movement range limit in the upward direction

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LC11&res=1

[Response] AW-HE50 → PC

200 OK "IC11"

• Releasing the movement range limit in the upward direction

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LC10&res=1

[Response] AW-HE50 → PC

200 OK "IC10"

• Setting/releasing the movement range limit in the upward direction

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23L1&res=1

[Response] AW-HE50 → PC

200 OK "I1"

3.1.5. Lens operations

3.1.5.1. Zoom

These commands control the zooming (between Wide and Tele) of the camera lens and enable the current zoom position and zooming speed to be acquired.

Commands which control the zooming are also described in section “3.2.1.3.Zoom” of “3.2.Camera control”.

Table 3.1.5.1. Zoom

Command name	Category	Command	Data value	Setting	Remarks
Zoom (position control) control command	Control	#AXZ[Data]	555h ` FFFh	Wide ` Tele	※ Not supported by the AK-UB300.
	Response	axz[Data]			
Zoom (position control) query command	Request	#AXZ	None		
	Response	axz[Data]	555h ` FFFh	Wide ` Tele	
Zoom position query command	Request	#GZ	None		The “---” setting is supported only by the AW-HE50/AW-HE60/ AW-HE40/ AW-UE70/AW-HE42/AW-UE150. ※ Not supported by the AK-UB300.
	Response	gz[Data]	555h ` FFFh “---”	Wide ` Tele Standby	
Zoom (speed control) control command	Control	#Z[Data]	01 ` 49 50 51 ` 99	Wide Max. Speed ` Wide Min. Speed Zoom Stop Tele Min. Speed ` Tele Max. Speed	Zooming speed to be controlled
	Response	zS[Data]			※ Not supported by the AK-UB300.

Example of use)

• Zoom: Tele

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXZFFF&res=1

[Response] AW-HE50 → PC

200 OK “axzFFF”

• Speed control: zooming max. speed in Wide direction

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23Z01&res=1

[Response] AW-HE50 → PC

200 OK “zS01”

3.1.5.2. Focus

These commands control the focusing (between Near and Far) of the camera and enable the current focus position and focus adjustment speed to be acquired.

They also enable On/Off for the auto focus to be controlled and the current auto focus On/Off status to be acquired.

Commands which control the focusing are also described in section “3.2.1.1. Focus” of “3.2. Camera control”.

Table 3.1.5.2. Focus

Command name	Category	Command	Data value	Setting	Remarks
Focus (position control) control command	Control	#AXF[Data]	555h ` FFFh	Near ` Far	<ul style="list-style-type: none"> • Invalid when auto focus is On (ER3 is returned). ※ Not supported by the AK-UB300.
	Response	axf[Data]			
Focus (position control) query command	Request	#AXF	None		<ul style="list-style-type: none"> • Invalid when auto focus is On (ER3 is returned). ※ Not supported by the AK-UB300.
	Response	axf[Data]	555h ` FFFh	Near ` Far	
Focus position query command	Request	#GF	None		<ul style="list-style-type: none"> • Invalid when auto focus is On (ER3 is returned). ※ Not supported by the AK-UB300.
	Response	gf[Data]	555h ` FFFh ---	Near ` Far Standby	
Focus (speed control) control command	Control	#F[Data]	01 ` 49 50 51 ` 99	Near Max. Speed ` Near Min. Speed Focus Stop Far Min. Speed ` Far Max. Speed	<ul style="list-style-type: none"> • Focusing speed to be controlled • Invalid when auto focus is On (ER3 is returned).
	Response	fS[Data]			
Auto focus On/Off control command	Control	#D1[Data]	0 1	Off(Manual) On(Auto)	<ul style="list-style-type: none"> • In case of AW-HE130, auto focus cannot be set to On when FrameMix is set to 18 [dB] or higher. ※ Not supported by the AK-UB300.
	Response	d1[Data]			
Auto focus On/Off query command	Request	#D1	None		<ul style="list-style-type: none"> ※ Not supported by the AK-UB300.
	Response	d1[Data]	0 1	Off(Manual) On(Auto)	

Example of use)

·Focus: Near

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXF555&res=1

[Response] AW-HE50 → PC

200 OK “axf555”

·Speed control: max. focusing speed in Far direction

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23F99&res=1

[Response] AW-HE50 → PC

200 OK “fS99”

·Auto focus: auto focus start

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D11&res=1

[Response] AW-HE50 → PC
200 OK "d11"

3.1.5.3. Iris

These commands control the iris (between Close and Open) of the camera and enable the current iris position to be acquired.

In addition, they enable Auto/Manual control of the iris and the current iris Auto/Manual statuses to be acquired.

Commands which control the iris are also described in section “3.2.1.2. Iris” of “3.2. Camera control”.

Table 3.1.5.3. Iris

Command name	Category	Command	Data value	Setting	Remarks
Iris position control command	Control	#I [Data]	01 ` 99	Iris Close ` Iris Open	※ Not supported by the AK-UB300.
	Response	iC[Data]			
	Control	#AXI [Data]		Iris Close ` FFFh	
	Response	axi [Data]		Iris Open	
Iris position query command	Request	#AXI	None		※ Not supported by the AK-UB300.
	Response	axi [Data]	555h ` FFFh	Iris Close ` Iris Open	
Iris position Auto/Manual query command	Request	#GI	None		<ul style="list-style-type: none"> The “---” setting is supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42/AW-UE150. In case of AW-HE130/AW-HR140, auto focus cannot be set to On when FrameMix is set to 18 [dB] or higher.
	Response	gi [Data1] [Data2]	[Data1] 555h ` FFFh “---” [Data2] 0 1	Iris Close ` Iris Open Standby Manual Iris Auto Iris	
Auto Iris On/Off control command	Control	#D3[Data]	0 1	Manual Iris Auto Iris	※ Not supported by the AK-UB300.
	Response	d3[Data]			
Auto Iris On/Off query command	Request	#D3	None		※ Not supported by the AK-UB300.
	Response	d3[Data]	0 1	Manual Iris Auto Iris	

Example of use)

· Iris: Open

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23I99&res=1

[Response] AW-HE50 → PC

200 OK "iC99"

· Iris: Close

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXI555&res=1

[Response] AW-HE50 → PC

200 OK "axi555"

- Auto iris: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D31&res=1

[Response] AW-HE50 → PC

200 OK "d31"

3.1.6. Lens information notification

These commands enable On or Off to be set for the lens information notification of the camera and the current lens information notification On/Off status and lens information to be acquired.

Table 3.1.6. Lens information notification On/Off

Command name	Category	Command	Data value	Setting	Remarks
Lens information notification On/Off control command	Control	#LPC[Data]	0 1	Off On	Off: Information is not posted. On: Information is posted. ※ Not supported by the AK-UB300.
	Response	IPC[Data]			
Lens information notification On/Off query command	Request	#LPC	None		※ Not supported by the AK-UB300.
	Response	IPC[Data]	0 1	Off On	Off: Information is not posted. On: Information is posted.
Lens information query command	Request	#LPI	None		※ Not supported by the AK-UB300.
	Response	IPI [Data1] [Data2][Data3]	[Data1] 555h ` FFFh [Data2] 555h ` FFFh [Data3] 555h ` FFFh	[Data1] Zoom Position Wide ` Tele [Data2] Focus Position Near ` Far [Data3] Iris Position Close ` Open	[Data1] Same return as #GZ [Data2] Same return as #GF [Data3] Same return as #GI • The command is sent periodically (every 300 ms) to all the channels to which the command can be sent.

Example of use)

- Lens information notification: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LPC1&res=1

[Response] AW-HE50 → PC

200 OK "IPC1"

- Lens information acquisition

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LPI&res=1

[Response] AW-HE50 → PC

200 OK "IPI [Data1][Data2][Data3]"

3.1.7. Preset

These commands register and play back the presets of the camera and enable the preset number last played back to be acquired.

They also enable the preset speed to be registered and the current preset speed to be acquired.

Table 3.1.7. Preset

Command name	Category	Command	Data value	Setting	Remarks
Preset (register) control command	Control	#M[Data]	00 ↳ 99	Preset 001 ↳ Preset 100	※ Not supported by the AK-UB300.
	Response	s[Data]			
Preset (playback) control command	Control	#R[Data]	00 ↳ 99	Preset 001 ↳ Preset 100	※ Not supported by the AK-UB300.
	Response	s[Data]			
Preset (delete) control command	Control	#C[Data]	00 ↳ 99	Preset 001 ↳ Preset 100	※ Not supported by the AK-UB300
	Response	s[Data]			
Preset number query command	Request	#S	None		※ Not supported by the AK-UB300. Request for preset number last played back
	Response	s[Data]	00 ↳ 99	Preset 001 ↳ Preset 100	
Preset Speed control command	Request	#UPVS[Data]	In the case of the AW-HE40/AW-HE50/AW-HE60/AW-UE70/AW-HE42/AW-HE120/AW-HE130/AW-HR140		
	Response	uPVS[Data]	000 250 ↳ 999	30 : MaxSpeed 1 : Slow ↳ 30 : Fast	
Preset Speed query command	Request	#UPVS	In the case of the AW-UE150		
	Response	uPVS[Data]	000 250 ↳ 999 001 ↳ 063	Preset Speed Unit : Speed 30 : MaxSpeed 1 : Slow ↳ 30 : Fast Preset Speed Unit: Time 1sec ↳ 99sec	
	Request	#UPVS	None		※ Not supported by the AK-UB300.
	Response	uPVS[Data]	In the case of the AW-HE40/AW-HE50/AW-HE60/AW-UE70/AW-HE42/AW-HE120/AW-HE130/AW-HR140		
			250 ↳ 999	1 : Slow ↳ 30 : Fast	
			In the case of the AW-UE150.		
			250 ↳	Preset Speed Unit : Speed 1 : Slow ↳	

Command name	Category	Command	Data value	Setting	Remarks
			999 001 ` 063	30 : Fast Preset Speed Unit: Time 1sec ` 99sec	
Freeze during preset control command	Control	#PRF[Data]	0 1	OFF ON	※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150.
	Response	pRF[Data]	0 1	OFF ON	
Freeze during preset query command	Request	#PRF	None		※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150.
	Response	pRF[Data]	0 1	OFF ON	
Preset Speed Table control command	Control	#PST[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			0	SLOW	
			1	MID	
			In the case of the AW-HE130/AW-HR140/AW-UE150		
	Response	pST[Data]	0 2	SLOW HIGH	
Preset Speed Table query command	Request	#PST	None		
	Response	pST[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			0	SLOW	
			1	MID	
			In the case of the AW-HE130/AW-HR140/AW-UE150		
			0 2	SLOW HIGH	
Preset Entry query command	Request	#PE[Data1]	[Data1] 00h 01h 02h	[Data1] Preset 001~040 Preset 041~080 Preset 081~100	
	Response	pE[Data1][Data2]	[Data1] 00h 01h 02h [Data2] 00000000 00h - FFFFFF FFFh (bit0) 0 1 (bit1) 0 1 - (39bit) 0 1	[Data1] Preset 001~040 Preset 041~080 Preset 081~100 [Data2] PRESET No.(Data1*40 + 1) No Entry Entry PRESET No.(Data1*40 + 2) No Entry Entry - PRESET No.(Data1*40 + 40) No Entry Entry	※Max 100Preset

※After the presets have all been played back, the completion notification is sent in the “q**” format.
For details, refer to “4.4.4. Preset playback”.

Example of use)

•Preset: registering a setting in Preset 08

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23M07&res=1

[Response] AW-HE50 → PC

200 OK “s07”

•Preset: playing back Preset 12

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23R11&res=1

[Response] AW-HE50 → PC

200 OK “s11”

•Preset: Preset Speed Set to 1(Slow)

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23UPVS250&res=1

[Response] AW-HE50 → PC

200 OK “uPVS250”

3.1.8. Tally

These commands exercise enable/disable control over the tally input of the camera and enable the current tally input enable/disable statuses to be acquired.

In addition, they exercise tally On/Off control over the camera.

Table 3.1.8. Tally

Command name	Category	Command	Data value	Setting	Remarks
Tally input enable/disable control command	Control	#TAE[Data]	0 1	Disable Enable	※ Not supported by the AK-UB300/AW-HR140. ※ Effective for R-Tally, G-Tally
	Response	tAE[Data]			
Tally input enable/disable query command	Request	#TAE	None		※ Not supported by the AK-UB300/AW-HR140.
	Response	tAE[Data]	0 1	Disable Enable	
R-Tally On/Off control command	Control	#DA[Data]	0 1	R-Tally Off R-Tally On	※ Not supported by the AK-UB300.
	Response	dA[Data]			
R-Tally On/Off query command	Request	#DA	None		※ Not supported by the AK-UB300.
	Response	dA[Data]	0 1	R-Tally Off R-Tally On	
Tally Information query command	Request	#TAA	None		※ Only supported by the AW-UE150
	Response	tAA[Data1] [Data2] [Data3] [Data4] [Data5] [Data6] [Data7] [Data8] [Data9]	0(Off) 1(On)	[Data1] R-Tally On/Off [Data2] Wired R-Tally In On/Off [Data3] Command R-Tally In On/Off [Data4] G-Tally On/Off [Data5] Reserved [Data6] Command G-Tally In On/Off [Data7] Reserved [Data8] Reserved [Data9] Reserved	

Example of use)

- Tally input (enable/disable): Enable

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23TAE1&res=1

[Response] AW-HE50 → PC
200 OK "tAE1"

•R-Tally: On

[Control] PC → AW-HE50
http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23DA1&res=1

[Response] AW-HE50 → PC
200 OK "dA1"

3.1.9. Wireless remote controller setting

These commands make it possible for enable or disable to be set for the control which is exercised over the wireless remote controller of the camera and for the current enable/disable statuses to be acquired.

Table 3.1.9. Wireless remote controller enable/disable setting

Command name	Category	Command	Data value	Setting	Remarks
Wireless remote controller control enable/disable control command	Control	#WLC[Data]	0 1	Disable Enable	※ Not supported by the AK-UB300/AW-HR140.
	Response	wLC[Data]			
Wireless remote controller control enable/disable query command	Request	#WLC	None		※ Not supported by the AK-UB300/AW-HR140.
	Response	wLC[Data]	0 1	Disable Enable	
Wireless remote controller ID control command	Control	#RID[Data]	0 1 2 3	CAM1 CAM2 CAM3 CAM4	※ Only supported by the AW-HE40/ AW-UE70/AW-HE42.
	Response	rID[Data]			
Wireless remote controller ID query command	Request	#RID	None		※ Only supported by the AW-HE40/ AW-UE70/AW-HE42.
	Response	rID[Data]	0 1 2 3	CAM1 CAM2 CAM3 CAM4	

Example of use) Wireless remote controller: Disable

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23WLC0&res=1

[Response] AW-HE50 → PC

200 OK "wLC0"

3.1.10. Zoom position-linked pan/tilt speed adjustment On/Off

These commands exercise On/Off control over the zoom position-linked pan/tilt speed adjustments of the camera and enable the current On/Off statuses to be acquired.

When the lens is zoomed toward Tele, the pan/tilt movement is set to the low speed.

Table 3.1.10. Zoom position-linked pan/tilt speed adjustment On/Off

Command name	Category	Command	Data value	Setting	Remarks
Zoom position-linked pan/tilt speed adjustment On/Off control command	Control	#SWZ[Data]	0 1	Off On	※ Not supported by the AK-UB300.
	Response	sWZ[Data]			
Zoom position-linked pan/tilt speed adjustment On/Off query command	Request	#SWZ	None		※ Not supported by the AK-UB300.
	Response	sWZ[Data]	0 1	Off On	

Example of use)

- Zoom position-linked pan/tilt speed adjustment: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23SWZ1&res=1

[Response] AW-HE50 → PC

200 OK "sWZ1"

3.1.11. Software version information

This command enables the software version information to be acquired.

Table 3.1.11. Software version information

Command name	Category	Command	Data value	Setting	Remarks
Software version information query command	Request	#QSV[Data1]		In the case of the AW-HE50/AW-HE60	
			[Data1] 0 1 2 3 4 5 6 7 8	[Data1] Pan Tilt CPU Camera CPU Camera PLD Network CPU OUT PLD Reserve Reserve Reserve Camera EEPROM	※The Camera EEPROM setting is supported only by the AW-HE60.
				In the case of the AW-HE120	
			[Data1] 0 1 2 3 4 5 6 7 8	[Data1] Servo CPU CameraMain CPU Frontend FPGA Network CPU Backend FPGA Interface CPU Lens FPGA Interface EEPROM Camera EEPROM	
				In the case of the AW-HE130	
			[Data1] 0 1 2 3 4 5 6 7 8	[Data1] Servo CPU CameraMain CPU COM FPGA Network CPU AVIO FPGA Interface CPU Lens FPGA Interface EEPROM Reserved	
				In the case of the AW-HE40/AW-UE70/AW-HE42	
			[Data1] 0 1 2 3 4 5 6 7 8	[Data1] Servo CPU Cam CPU FPGA BE CPU reserve Interface CPU reserve Interface EEPROM Reserve	
				In the case of the AW-UE150	
			[Data1] 0 1	[Data1] Servo CPU Camera CPU	

Command name	Category	Command	Data value	Setting	Remarks
			2 3 4 5 6 7 8 9	COM FPGA Main/NetworkCPU AVIO FPGA Interface CPU Lens CPU Interface EEPROM reserve BE EEPROM	
	Response	qSV[Data1]V[Data2]. [Data3][Data4] [Data5][Data6]	[Data2] 00-99 [Data3] 00-99 [Data4] E L [Data5] 00-99 [Data6] 0 1 2	[Data2] MAJOR VERSION [Data3] MINOR VERSION [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [Data6] NTSC PAL Other	※ Not supported by the AK-UB300.

Example of use) Software version information acquisition: Camera CPU

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23QSV1&res=1

[Response] AW-HE50 → PC

200 OK "qSV[Data1]V[Data2].[Data3][Data4][Data5][Data6]"

3.1.12. Error information

This command enables the error information mainly of the pan-tilt head to be acquired.

Table 3.1.12. Error information

Command name	Category	Command	Data value	Setting	Remarks
Error information query command	Request	#RER	None		
	Response	rER[Data]			In the case of the AW-HE50/AW-HE60
			00h	Disable	Normal
			01h	Enable	-
			02h		-
			03h		Motor Driver Error
			04h		Pan Sensor Error
			05h		Tilt Sensor Error
			06h		Controller RX Over run Error
			07h		Controller RX Framing Error
			08h		Network RX Over run Error
			09h		Network RX Framing Error
			0Ah		-
			0Bh		-
			-		-
			17h		Controller RX Command Buffer Overflow
			-		-
			19h		Network RX Command Buffer Overflow
			-		-
			21h		System Error
			22h		Spec Limit Over
			23h		FPGA Config Error
			24h		Network communication Error
			25h		Lens Initialize Error
			-		-
			30h		Lvds_Adjustment_NG
			31h		Bar_Signal_Check_NG
			32h		H_Sync_Check_NG
			33h		HDMI_Check_NG
					※ Not supported by the AK-UB300.
					In the case of the AW-HE120/AW-HE130
			00h	Disable	Normal
			01h	Enable	-
			02h		-
			03h		Motor Driver Error
			04h		Pan Sensor Error
			05h		Tilt Sensor Error
			06h		Controller RX Over run Error
			07h		Controller RX Framing Error
			08h		Network RX Over run Error
			09h		Network RX Framing Error
			0Ah		-
			0Bh		-
			-		Controller RX Command Buffer Overflow
			17h		-
			-		Network RX Command Buffer Overflow
			19h		-
			-		-
			21h		System Error
			22h		Spec Limit Over
			-		-
			24h		Network communication Error

Command name	Category	Command	Data value	Setting	Remarks
			25h 26h 27h 28h		CAMERA communication Error CAMERA RX Over run Error CAMERA RX Framing Error CAMERA RX Command Buffer Overflow
In the case of the AW-HR140					
			00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 0Ah 0Bh - - 17h - 19h - 21h 22h - 24h 25h 26h 27h 28h - 31h 32h 33h - 36h - 39h 40h - 50h 51h 52h 53h	Disable Enable	Normal - - Motor Driver Error Pan Sensor Error Tilt Sensor Error Controller RX Over run Error Controller RX Framing Error Network RX Over run Error Network RX Framing Error - - - Controller RX Command Buffer Overflow - - Network RX Command Buffer Overflow - System Error Spec Limit Over - Network communication Error CAMERA communication Error CAMERA RX Over run Error CAMERA RX Framing Error CAMERA RX Command Buffer Overflow - - Fan1 error Fan2 error High Temp - Low Temp - Wiper Error Temp Sensor Error - MR Level Error GYRO Initial Error MR Offset Error Origin Offset Error
In the case of the AW-HE40/AW-UE70/AW-HE42					
			00h 03h 04h 05h 06h 07h 08h	Disable Enable	Normal(No Error) Motor Driver Error Pan Sensor Error Tilt Sensor Error IF/FPGA UART Over run Error IF/FPGA UART Framing Error IF/NET UART Over run Error

Command name	Category	Command	Data value	Setting	Remarks
			09h 17h 19h 21h 22h 24h 25h 26h 27h 28h 29h		IF/NET UART Framing Error IF/FPGA UART Buffer Overflow IF/NET UART Buffer Overflow System Error(IF/SERVO Error) PT Limit Over NET Life-monitoring Error BE Life-monitoring Error IF/BE UART Buffer Overflow IF/BE UART Framing Error IF/BE UART Buffer Overflow CAM Life-monitoring Error ※ Not supported by the AK-UB300.
In the case of the AW-UE150					
			00h 03h 04h 05h 06h 07h 08h 09h 17h 19h 21h 22h 23h 24h 25h 26h 27h 28h 29h 31h 32h 33h 36h 40h 41h 42h 50h 52h 53h 54h 55h 56h	Disable Enable	Normal Motor Driver Error Pan Sensor Error Tilt Sensor Error Controller RX Over run Error Controller RX Framing Error Network RX Over run Error Network RX Framing Error Controller RX Command Buffer Overflow Network RX Command Buffer Overflow System Error Spec Limit Over FPGA Config Error NET Life-monitoring Error BE Life-monitoring Error IF/BE UART Buffer Overflow IF/BE UART Framing Error IF/BE UART Buffer Overflow CAM Life-monitoring Error Fan1 error Fan2 error High Temp Low Temp Temp Sensor Error Lens Initialize Error PT. Initialize Error MR Level Error MR Offset Error Origin Offset Error Angle MR Sensor Error PT. Gear Error Motor Disconnect Error

Example of use) Error information acquisition

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23RER&res=1

[Response] AW-HE50 → PC

200 OK "rER[Data]"

3.1.13. Status Lamp

These commands exercise enable/disable control over the status lamp of the camera and enable the current tally input enable/disable statuses to be acquired.

Table 3.1.13. Status Lamp

Command name	Category	Command	Data value	Setting	Remarks
Status Lamp enable/disable control command	Control	#LMP[Data]	0 1	Disable Enable	※Only supported by the AW-HE130(V2.00 or a later) /AW-UE150
	Response	IMP[Data]			
Status Lamp enable/disable query command	Request	#LMP	None		※Only supported by the AW-HE130(V2.00 or a later) /AW-UE150
	Response	IMP[Data]	0 1	Disable Enable	

Example of use)

• Status Lamp (enable/disable): Enable

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LMP1&res=1

[Response] AW-HE130 → PC

200 OK "IMP1"

3.1.14. Housing

These commands enable the housing settings of the camera to be established and the current settings to be acquired..

Table 3.1.14. Housing

Command name	Category	Command	Data value	Setting	Remarks
Defroster Control control command	Control	#D7[Data]	0	Auto	※Only supported by the AW-HR140
	Response	d7[Data]	1	On	
Defroster Control query command	Request	#D7	None		※Only supported by the AW-HR140
	Response	d7[Data]	0 1	Auto On	
Wiper Control control command	Control	#D8[Data]	0	Off	※Only supported by the AW-HR140
	Response	d8[Data]	1	Fast	
Wiper Control query command	Request	#D8	None		※Only supported by the AW-HR140
	Response	d8[Data]	0 1	Off Fast	
Heater Control control command	Control	#D9[Data]	0	Auto	※Only supported by the AW-HR140
	Response	d9[Data]	1	On	
Heater Control query command	Request	#D9	None		※Only supported by the AW-HR140
	Response	d9[Data]	0 1	Auto On	
FAN control command	Control	#FAN[Data]	In the case of the AW-HR140		
	Response	fAN[Data]	0 1	Auto On	
FAN query command	Request	#FAN	None		
	Response	fAN[Data]	In the case of the AW-HR140 0 1	Auto On	
FAN2 control command	Control	#FA2[Data]	In the case of the AW-UE150		
	Response	fA2[Data]	0 1 2 3	Auto High Mid Low	
FAN2 query command	Request	#FA2	None		※Only supported by the AW-UE150
	Response	fA2[Data]	0 1 2 3	Auto High Mid Low	
Wiper control command	Control	#WIP[Data]	0	Off	※Only supported by the AW-HR140
	Response	wIP[Data]	1 2	Fast Slow	
Wiper query command	Request	#WIP	None		※Only supported by the AW-HR140
	Response	wIP[Data]	0 1 2	Off Fast Slow	
Washer control command	Control	#WAS[Data]	0	Off	※Only supported by the AW-HR140
	Response	wAS[Data]	1	On	

Command name	Category	Command	Data value	Setting	Remarks
Washer query command	Request	#WAS	None		※Only supported by the AW-HR140
	Response	wAS[Data]	0 1	Off On	
Fan Status1 query command	Request	#FS1	None		
	Response	fS1[Data]	In the case of the AW-HR140		
			0 1	Off On	
			In the case of the AW-UE150		
			0 1 2	Off On Fan Error	
Fan Status2 query command	Request	#FS2	None		
	Response	fS2[Data]	In the case of the AW-HR140		
			0 1	Off On	
			In the case of the AW-UE150		
			0 1 2	Off On Fan Error	
Heater Status query command	Request	#HS	None		※Only supported by the AW-HR140
	Response	hS[Data]	0 1	Off On	
Defroster Status query command	Request	#DS	None		※Only supported by the AW-HR140
	Response	dS[Data]	0 1	Off On	
Washer P/T Position control command	Control	#WPT	None		※Only supported by the AW-HR140
	Response	wPT			
Washer P/T Position Reset control command	Control	#WPR	None		※Only supported by the AW-HR140
	Response	wPR			

Example of use) Defroster Control: On

[Control] PC → AW-HR140

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D71&res=1

[Response] AW-HR140 → PC

200 OK "d71"

3.1.15. Option switch setting

These commands control the On/Off of the option functions.

Table 3.1.15. option switch

Command name	Category	Command	Data value	Setting	Remarks
Option SW control command	Control	#D6[Data]	0	OFF	※Only supported by the AW-HE60/AW-HE130 /AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150 OFF: Switching to Day mode. ON: Switching to Night mode.
	Response	d6[Data]	1	ON	
Option SW query command	Request	#D6	None		※Only supported by the AW-HE60/AW-HE130 /AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150 OFF: Day mode ON: Night mode
	Response	d6[Data]	0 1	OFF ON	

Example of use)

- Option SW: On

[Control] PC → AW-HE60

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D61&res=1

[Response] AW-HE60 → PC

200 OK "d61"

3.1.16. Resolution control

These commands control the resolution control functions.

Table 3.1.16. Status Lamp

Command name	Category	Command	Data value	Setting	Remarks	
Resolution control control command	Control	#RZL[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42			
	Response	rZL[Data]	0 1	640x360 320x180		
Resolution control query command	Request	#RZL	In the case of the AW-UE150			
			0 1 2 3	640x360 320x180 1280x720 1920x1080		
Resolution control query command	Response	rZL[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42			
			0 1	640x360 320x180		
Resolution control query command			In the case of the AW-UE150			
			0 1 2 3	640x360 320x180 1280x720 1920x1080		

Example of use)

· Resolution Control: 640x360

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23RZL0&res=1

[Response] AW-UE150→ PC

200 OK “RZL0”

3.1.17. Simultaneous query command

These query commands can get multiple parameters simultaneously.

Table 3.1.17. Simultaneous query command

Command name	Category	Command	Data value	Setting	Remarks
Get Gain/ ColorTemp/ Shutter/ND query command	Request	#PTG	None		※Only supported by the AW-UE150
	Response	pTG[Data1] [Data2][Data3][Data4][Data5][Data6]	[Data1] 08h ~ 11h ~ 1Ah ~ 32h 80h [Data2] 00000h ~ 3A98h [Data3] 0h 1h 2h 3h [Data4] 0001h ~ 2710 h [Data5] 00000h ~ 186A0h [Data6] 0 1 2 3	[Data1] (Gain) 0dB ~ 9dB ~ 18dB ~ 42dB AGC ON [Data2] 0K ~ 15000K [Data3] (Shutter Mode) Off Step Syncro ELC [Data4] (Shutter Step) 1/1 ~ 1/10000 [Data5](Shutter Synchro) 0.0 [Hz] ~ 10000.0[Hz] [Data6] (ND) Throgh 1/4 ND 1/16 ND 1/64 ND	
Get Pan/Tilt/Zoom/ Focus/Iris query command	Request	#PTV	None		※Only supported by the AW-UE150
	Response	pTV[Data1] [Data2][Data3][Data4][Data5]	[Data1] 0000h ~ 8000h ~ FFFFh [Data2] 0000h ~ 8000h ~ FFFFh [Data3] 555h ~ FFFh	[Data1] (Pan) ccwLimit ~ Center ~ cwLimit [Data2] (Tilt) UpLimit ~ Center ~ DownLimit [Data3] (Zoom) Wide ~ Tele	

Command name	Category	Command	Data value	Setting	Remarks
			[Data4] 555h ~ FFFh [Data5] 555h ~ FFFh	[Data4](Focus) Near ~ Far [Data5] (Iris) Close ~ Open	
Get Pan/Tilt/ Zoom/Focus/Iris query command	Request	#PTD	None		※Only supported by the AW-UE150
	Response	pTD[Data1] [Data2][Dat a3][Data4][Data5]	[Data1] 0000h ~ FFFFh [Data2] 0000h ~ FFFFh [Data3] 000h ~ 3E7h [Data4] 00h ~ 63h [Data5] 00h ~ FEh FFh	[Data1] (Pan) 0000h ~ FFFFh [Data2] (Tilt) 0000h ~ FFFFh [Data3] (Zoom) 0 ~ 999 [Data4] (Focus) 0 ~ 99 [Data5] (Iris) F0.0 ~ F25.4 CLOSE	

Example of use)

- Get Gain/ Color Temp/ Shutter/ND

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTG&res=1

[Response] AW-UE150 → PC

200 OK "PTG[Data1][Data2][Data3][Data4][Data5]"

3.2. Camera control

The camera control commands are based on the HTTP1.1 communication specifications.
Their format is given below. For details on the HTTP messages, refer to <Appendix>.

【Command format】

[Send]

http://[IP Address]/cgi-bin/aw_cam?cmd=[Command]&res=[Type]

※**IP Address**..... IP address of camera at connection destination

※**Command**..... Details given in “Command” column in the command tables below

※**Type**..... Normally “1” (but “0” for the AWB[OWS] and ABB[OAS] commands)

[Receive]

200 OK “**Command**”

※**Command**..... Response value of each command; described in the HTTP message body.

There is no response in the case of an AWB or ABB command whose Type is 0.

Refer to “4. Camera information update notification” in order to receive the AWB/ABB result notifications.

Example: Focus setting = Auto

[Send]

http://192.168.0.10/cgi-bin/aw_cam?cmd=OAF:0&res=1

[Receive] The response is the HTTP response.

200 OK “**OAF:0**”

Given below is the sequence used when communication has been performed in accordance with the command format described on the previous page.

For the sequence when errors have been generated in response to commands, refer to “6. Error return”.

【Sequence】

“PC1” is the control terminal in the sequence below.

Example: Focus setting = Auto

Camera IP Address = 192.168.0.10

Command = OAF:1

Auto focus control is performed from PC1, and [200 OK “OAF:1”] is returned as the response.

Both a control command and query command are available as the camera control commands.

Given below is the command sequence.

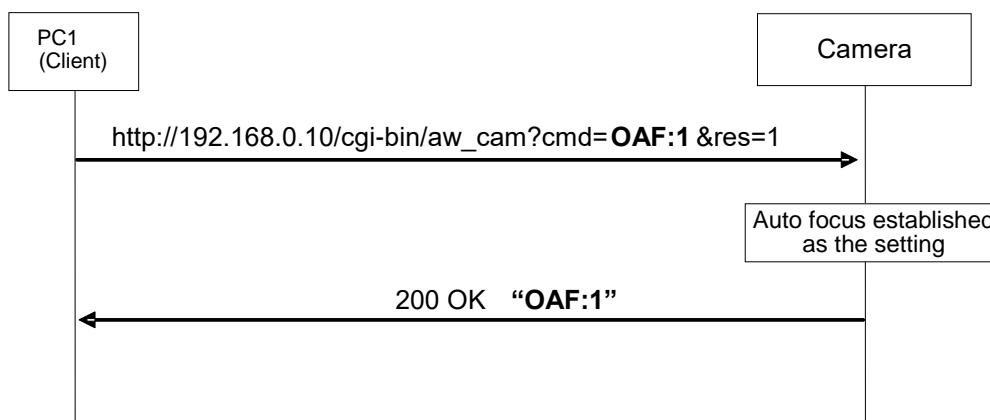


Fig.3.2-1 Camera control command sequence

The following restrictions should be noted when using these commands.

These restrictions are as follows.

【Restrictions】

- When sending the camera control commands, send the commands with a gap of 130 ms between each command.

Given below is the command sequence.

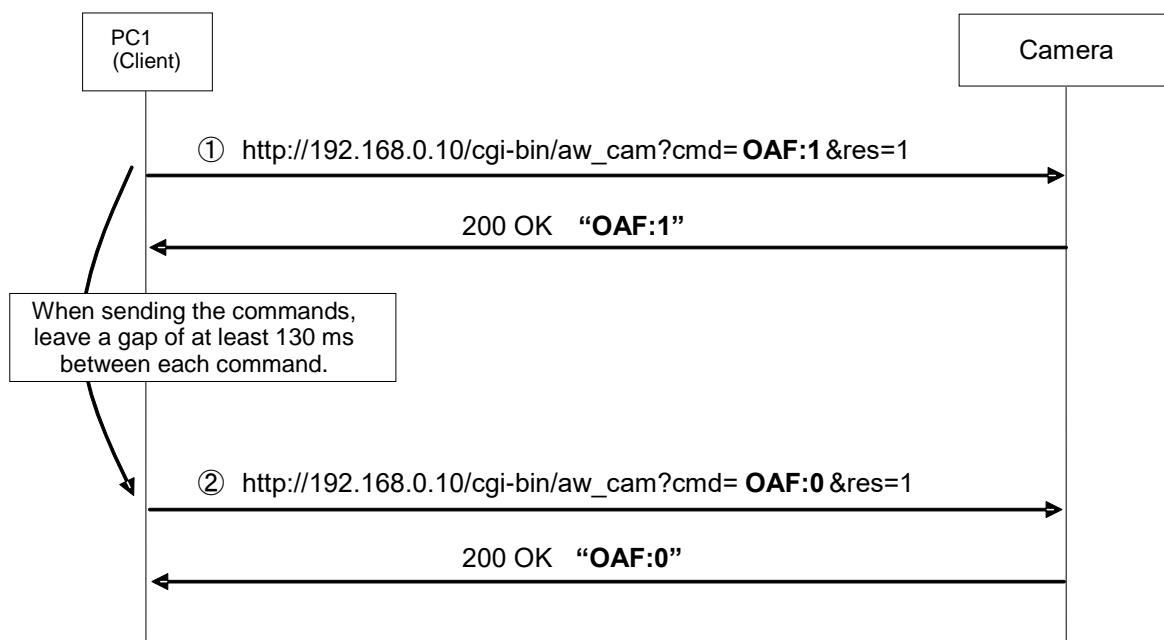


Fig.3.2-2 Restrictions

- Send the commands which change the settings only at the point in time when the changes are required. (Do not send them at regular intervals.)

※The applicable models incorporate an EEPROM for storing the settings, and each time a command that changes the settings is received, data is written in the EEPROM. The number of times data can be written in the EEPROM is limited so if data is sent frequently, the model will cease to operate normally when the maximum number of times for writing the data has been reached.

3.2.1. Lens operations

3.2.1.1. Focus

These commands exercise Auto/Manual control of the focusing and one-touch auto focus control of the camera.

Commands which control the focusing are also described in section “3.1.5.2. Focus” of “3.1. Pan-tilt head control”.

Table 3.2.1.1. Focus

Command name	Category	Command	Data value	Setting	Remarks
Focus Auto/Manual control command	Control	OAF:[Data]	0 1	Manual Auto	<ul style="list-style-type: none"> In case of AW-HE130/AW-HR140, focus cannot be set to Auto when FrameMix is set to 18 [dB] or higher. ※ Not supported by the AK-UB300.
	Response	OAF:[Data]			
Focus Auto/Manual query command	Request	QAF	None		<ul style="list-style-type: none"> ※ Not supported by the AK-UB300.
	Response	OAF:[Data]	0 1	Manual Auto	
One-touch focus control command	Control	OSE:69:[Data]	1	One Touch AF	<ul style="list-style-type: none"> One-touch focus On control ※ Not supported by the AK-UB300.
	Response	OSE:69:1			
Focus control (toward FAR end) control command	Control	HFF	None		<ul style="list-style-type: none"> ※ Only supported by the AK-UB300.
	Response	HFF			
Focus control (toward NEAR end) control command	Control	HFN	None		<ul style="list-style-type: none"> ※ Only supported by the AK-UB300.
	Response	HFN			
Focus control (STOP) control command	Control	HFS	None		<ul style="list-style-type: none"> ※ Only supported by the AK-UB300.
	Response	HFS			
Focus speed setting control command	Control	LFS:[Data]	0 ~ 9	Slow ~ Fast	<ul style="list-style-type: none"> ※ Only supported by the AK-UB300.
	Response	LFS:[Data]			
Touch AF	Control	OSJ:28:[Data 1]:[Data2]	[Data 1] 00h ~ 64h [Data 2] 00h ~ 64h	[Data1]H Pos. 0% ~ 100% [Data2]V Pos. 0% ~ 100%	<ul style="list-style-type: none"> ※ Only supported by the AW-UE150.
	Response	OSJ:28:[Data 1]:[Data2]			

Example of use)

- Focus (Auto/Manual): Auto
[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OAF:1&res=1

[Response] AW-HE50 → PC
200 OK "OAF:1"

- Execution of one-touch focus control

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:69:1&res=1

[Response] AW-HE50 → PC
200 OK "OSE:69:1"

3.2.1.2. Iris

These commands control the iris (between Close and Open) of the camera and enable the current iris position to be acquired.

They also enable iris Auto/Manual to be controlled, the iris Auto/Manual status to be checked and the 10 steps of the contrast level (AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42), the 20 steps of the picture level (AW-HE120) or the 100 steps of the picture level (AW-HE130) to be set and these settings to be checked.

Commands which control the iris are also described in section “3.1.5.3.Iris” of “3.1. Pan-tilt head control”.

Table 3.2.1.2. Iris

Command name	Category	Command	Data value	Setting	Remarks
Iris Auto/Manual control command	Control	ORS:[Data]	0 1	Manual Auto	<ul style="list-style-type: none"> This command restores the held manual iris setting when control is switched from Auto to Manual. In the case of AW-HE130/AW-HR140, Iris cannot be set to Auto when FrameMix is set to 18 [dB] or higher.
Iris Auto/Manual query command	Request	QRS	None		
	Response	ORS:[Data]	0 1	Manual Auto	
Contrast level Picture level Iris offset control command	Control	OSD:48:[Data]	In the case of the AW-HE50/AW-HE60		
			64h 5Ah~63h 50h~59h 46h~4Fh 3Ch~45h 32h~3Bh 28h~31h 1Bh~27h 14h~1Ah 0Ah~13h 00h~09h	+5 +4 +3 +2 +1 0 -1 -2 -3 -4 -5	<ul style="list-style-type: none"> While “----” is displayed for Contrast Level on the OSD menu, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when the “----” display is released. Contrast level control (Auto)

Command name	Category	Command	Data value	Setting	Remarks
In the case of the AW-HE120					
			64h	+10	
			63h~5Fh	+9	
			5Eh~5Ah	+8	
			59h~55h	+7	
			54h~50h	+6	
			4Fh~4Bh	+5	
			4Ah~46h	+4	
			45h~41h	+3	
			40h~3Ch	+2	
			3Bh~37h	+1	
			36h~32h	0	
			31h~2Dh	-1	
			2Ch~28h	-2	
			27h~23h	-3	
			22h~1Eh	-4	
			1Dh~19h	-5	
			18h~14h	-6	
			13h~0Fh	-7	
			0Eh~0Ah	-8	
			09h~05h	-9	
			04h~00h	-10	
In the case of the AW-HE130/AW-HR140/AW-UE150					
			64h~33h	+50~+1	
			32h	0	
			31h~00h	-1~-50	
In the case of the AW-HE40/AW-UE70/AW-HE42					
			64h~33h	+10~-+1	
			32h	0	
			31h~00h	-1~-10	
In the case of the AK-UB300					
Response	OSD:48:[Data]	00h	0		• Functions as iris offset.
		1	1		
		64h	+100		

Command name	Category	Command	Data value	Setting	Remarks
Contrast level Picture level query command	Request	QSD:48	None		
	Response	OSD:48:[Data]			In the case of the AW-HE50/AW-HE60
			64h	+5	• Contrast level
			5Ah~63h	+4	
			50h~59h	+3	
			46h~4Fh	+2	
			3Ch~45h	+1	
			32h~3Bh	0	
			28h~31h	-1	
			1Bh~27h	-2	
			14h~1Ah	-3	
			0Ah~13h	-4	
			00h~09h	-5	
					In the case of the AW-HE120
			64h	+10	• Picture level
			63h~5Fh	+9	• Valid when Gain AGC, Iris Auto and
			5Eh~5Ah	+8	Shutter ELC have been set.
			59h~55h	+7	
			54h~50h	+6	
			4Fh~4Bh	+5	
			4Ah~46h	+4	
			45h~41h	+3	
			40h~3Ch	+2	
			3Bh~37h	+1	
			36h~32h	0	
			31h~2Dh	-1	
			2Ch~28h	-2	
			27h~23h	-3	
			22h~1Eh	-4	
			1Dh~19h	-5	
			18h~14h	-6	
			13h~0Fh	-7	
			0Eh~0Ah	-8	
			09h~05h	-9	
			04h~00h	-10	
					In the case of the AW-HE130/AW-HR140/AW-UE150
			64h~33h	+50~+1	• Valid when Gain AGC, Iris Auto and
			32h	0	Shutter ELC have been set.
			31h~00h	-1~-50	
					In the case of the AW-HE40/AW-UE70/AW-HE42
			64h~33h	+10~-+1	• Contrast level
			32h	0	
			31h~00h	-1~-10	
					In the case of the AK-UB300
			00h	0	• Functions as iris offset.
			1	1	
			64h	+100	
Auto iris level control command	Control	OSI:1D:[Data]	00h	0	※ Only supported by the AK-UB300.
	Response	OSI:1D:[Data]	1	1	
			64h	+100	
Auto iris level query command	Request	QSI:1D	None		※ Only supported by the AK-UB300.
	Response	OSI:1D:[Data]	00h	0	
			1	1	
			64h	+100	

Command name	Category	Command	Data value	Setting	Remarks
Iris F value query command	Request	QIF	None		※ Only supported by the AK-UB300/AW-UE150.
	Response	OIF:[Data]	0Eh (=14) ` 1Ch (=28) ` 38h (=56) ` A0h (=160) FFh	F1.4 ` F2.8 ` F5.6 ` F16 CLOSE	
Iris volume control command	Control	ORV:[Data]	000h ` 3FFh	Close ` Open	Iris volume control (Manual)
	Response	ORV:[Data]			
Iris volume query command	Request	QRV	None		Iris volume status request (Manual)
	Response	ORV:[Data]	000h ` 3FFh	Close ` Open	
	Request	QSD:4F	None		※ Not supported by the AK-UB300. Iris volume status request
	Response	OSD:4F:[Data]	00h ` FFh	Close ` Open	
Auto iris speed control command	Control	OSJ:01:[Data]	0h 1h 2h	Slow Normal Fast	※ Only supported by the AW-UE150.
	Response	OSJ:01:[Data]			
Auto iris speed query command	Request	QSJ:01	None		※ Only supported by the AW-UE150
	Response	OSJ:01:[Data]	0h 1h 2h	Slow Normal Fast	
Auto iris window control command	Control	OSJ:02:[Data]	0h 1h 2h	Normal1 Normal2 Center	※ Only supported by the AW-UE150.
	Response	OSJ:02:[Data]			
Auto iris window query command	Request	QSJ:02	None		※ Only supported by the AW-UE150
	Response	OSJ:02:[Data]	0h 1h 2h	Normal1 Normal2 Center	

Example of use)

· Auto iris: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORS:1&res=1

[Response] AW-HE50 → PC

200 OK "ORS:1"

· Iris: Open

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORV:3FF&res=1

[Response] AW-HE50 → PC

200 OK "ORV:3FF"

· Contrast level: 0

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:48:32&res=1

[Response] AW-HE50 → PC
200 OK "OSD:48:32"

3.2.1.3. Zoom

These commands control the camera's zoom.

Commands that control the zoom are also described in section "3.1.5.1. Zoom" of "3.1. Pan-tilt head control".

Table 3.2.1.3. Zoom control

Command name	Category	Command	Data	Setting	Remarks
Zoom control (toward TELE end) control command	Control	HZT	None		※ Only supported by the AK-UB300.
	Response	HZT			
Zoom control (toward WIDE end) control command	Control	HZW	None		※ Only supported by the AK-UB300.
	Response	HZW			
Zoom control (STOP) control command	Control	HZS	None		※ Only supported by the AK-UB300.
	Response	HZS			
Zoom speed setting control command	Control	LZS:[Data]	0 1 9	Slow Fast	※ Only supported by the AK-UB300.
	Response	LZS:[Data]			

Example of use)

·Zoom control (toward TELE end)

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=HZT&res=1

[Response] AK-UB300 → PC

200 OK "HZT"

3.2.1.4. ND filter setting

These commands control the ND filter of the camera, and they enable the ND filter status to be acquired.

Table 3.2.1.4. ND filter setting

Command name	Category	Command	Data value	Setting	Remarks
ND filter control command	Control	OFT:[Data]	In the case of the AW-HE120 /AW-UE150		
			0	Through	ND filter switching is not possible in Night mode
			1	1/4	
			2	1/16	
			3	1/64	
			In the case of the AW-HE130/AW-HR140		
			0	Through	ND filter switching is not possible in Night mode
			3	1/64	
			4	1/8	
			In the case of the AW-UE70/AW-HE42		
			0	Through	
			1	1/4 ND	
			2	1/16 ND	
			3	1/64 ND	
			8	Auto ND	
			In the case of the AK-UB300		
			0	Clear	
			1	1/4	
			2	1/16	
			3	1/64	
			Response	OFT:[Data]	
ND filter query command	Request	QFT	None		
	Response	OFT:[Data]	In the case of the AW-HE120/AW-UE150		
			0	Through	
			1	1/4	
			2	1/16	
			3	1/64	
			In the case of the AW-HE130/AW-HR140		
			0	Through	
			3	1/64	
			4	1/8	
			In the case of the AW-UE70/AW-HE42		
			0	Through	
			1	1/4 ND	
			2	1/16 ND	
			3	1/64 ND	
			8	Auto ND	
			In the case of the AK-UB300		
			0	Clear	
			1	1/4	
			2	1/16	
			3	1/64	

Example of use) ND filter: 1/4

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OFT:1&res=1

[Response] AW-HE120 → PC

200 OK "OFT:1"

3.2.1.5. Lens information notification

These commands acquire lens information.

Commands that acquire lens information are also described in section "3.1.6. Lens information notification" of "3.1. Pan-tilt head control".

Table 3.2.1.5. Lens information notification

Command	Category	Command	Data value	Setting	Remarks
Lens information query command	Request	QSI:18	[Data1] 555h ` FFFh [Data2] 555h ` FFFh [Data3] 555h ` FFFh	[Data1] Zoom Position Wide ` Tele [Data2] Focus Position Near ` Far [Data3] Iris Position Close ` Open	※ Only supported by the AK-UB300.
	Response	OSI:18:[Data1]:[Data2]:[Data3]			

Example of use)

·Lens information notification

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=QSI:18&res=1

[Response] AK-UB300 → PC

200 OK "QSI:18:555:555:555"

3.2.2. Color Bars setting

These commands enable color bar/camera to be switched, the color bar setup to be set and the current settings to be acquired.

Table 3.2.2. Color Bars

Command name	Category	Command	Data value	Setting	Remarks
Color bar/Camera control command	Control	DCB:[Data]	0	Camera Color Bars	
	Response	DCB:[Data]	1		
Color bar/Camera query command	Request	QBR	None	Camera Color Bars	
	Response	OBR:[Data]	0 1		
Color bar setup level control command	Control	DCS:[Data]	0 1	Off On	※Only enabled for the AW-HE120/AW-HE130.
	Response	DCS:[Data]			
Color bar setup level query command	Request	QCS	None	Off On	※Only enabled for the AW-HE120/AW-HE130.
	Response	OCS:[Data]	0 1		
Color bar type control command	Control	OSD:BA:[Data]	0	TYPE2 TYPE1	※Only enabled for the AW-UE70/AW-HE42, AW-HE40/AW-UE150
	Response	OSD:BA:[Data]	1		
Color bar type query command	Request	QSD:BA	None	TYPE2 TYPE1	
	Response	OSD:BA:[Data]	0 1		
Color bar title control command	Control	OSD:BE:[Data]	0 1	Off On	※Only enabled for the AW-UE70/AW-HE42, AW-HE40
	Response	OSD:BE:[Data]			
Color bar title query command	Request	QSD:BE	None	Off On	
	Response	OSD:BE:[Data]	0 1		
Color bar tone control command	Control	OSJ:27:[Data]	0h 1h 2h	Off Low Normal	※Only enabled for the AW-UE150.
	Response	OSJ:27:[Data]			
Color bar tone query command	Request	QSJ:27	None	Off Low Normal	
	Response	OSJ:27:[Data]	0h 1h 2h		

Example of use)

• Color bar/Camera control: Color bar

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=DGB:1&res=1

[Response] AW-HE50 → PC

200 OK "DGB:1"

• Color bar setup level: Off

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=DCS:0&res=1

[Response] AW-HE120 → PC

200 OK "DCS:0"

3.2.3. Scene file setting

These commands specify the scene files of the camera and enable the settings of the currently selected scene file to be acquired.

Table 3.2.3. Scene file setting

Command name	Category	Command	Data value	Setting	Remarks
Scene file control command	Control	XSF:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.		
			1	Manual1	
			2	Manual2	
			3	Manual3	
			4	FullAuto	
			In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150		
			1	Scene1	
			2	Scene2	
			3	Scene3	
			4	Scene4	
	Response	XSF:[Data]	In the case of the AK-UB300		
			1	CURRENT	
			2	SCENE1	
			3	SCENE2	
			4	SCENE3	
			5	SCENE4	
			6	SCENE5	
			7	SCENE6	
			8	SCENE7	
			9	SCENE8	
Scene file query command	Request	QSF	None		
	Response	OSF:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.		
			0	Manual1	• The data value differs depending on the responses to the control command and query command.
			1	Manual2	
			2	Manual3	
			3	FullAuto	
			In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150		
			0	Scene1	• The data value differs depending on the responses to the control command and query command.
			1	Scene2	
			2	Scene3	
			3	Scene4	
			In the case of the AK-UB300		
			0	CURRENT	• The data value differs depending on the responses to the control command and query command.
			1	SCENE1	
			2	SCENE2	
			3	SCENE3	
			4	SCENE4	
			5	SCENE5	
			6	SCENE6	
			7	SCENE7	
			8	SCENE8	

Example of use) Scene file: Manual1

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=XSF:1&res=1

[Response] AW-HE50 → PC

200 OK "XSF:1"

3.2.4. Shutter mode setting

These commands control the shutter of the camera and enable the currently set shutter mode to be acquired.

Table 3.2.4. Shutter mode setting

Command name	Category	Command	Data value	Setting	Remarks	
Shutter control command	Control	OSH:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.			
			0h	Shutter Off	<ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). • When auto iris is On, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off. 	
			3h	1/100(59.94Hz) 1/120(50Hz)		
			5h	1/250		
			6h	1/500		
			7h	1/1000		
			8h	1/2000		
			9h	1/4000		
			Ah	1/10000		
			Bh	Synchro-Scan		
			Ch	ELC		
		In the case of the AW-HE120				
			0h	Shutter Off	<ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). • When auto iris is On, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off. 	
			3h	1/100(59.94Hz) 1/120(50Hz)		
			5h	1/250		
			6h	1/500		
			7h	1/1000		
			8h	1/2000		
			9h	1/4000		
			Ah	1/10000		
			Bh	Synchro-Scan		
			Ch	ELC		
		When the output format of AW-HE130/AW-HR140 is set to (1080/59.94i / 1080/59.94P / 720/59.94P / 480/59.94P)				
			0h	Shutter Off	<ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). • When auto iris is On, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off. 	
			3h	1/100		
			4h	1/120		
			5h	1/250		
			6h	1/500		
			7h	1/1000		
			8h	1/2000		
			9h	1/4000		
			Ah	1/10000		
			Bh	Synchro-Scan		
		When the output format of AW-HE130/AW-HR140 is set to (1080/29.97p)				
			0h	Shutter Off	<ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). • When auto iris is On, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off. 	
			2h	1/60		
			4h	1/120		
			5h	1/250		
			6h	1/500		
			7h	1/1000		
			8h	1/2000		
			9h	1/4000		
			Ah	1/10000		
			Bh	Synchro-Scan		
		When the output format of AW-HE130/AW-HR140 is set to (1080/23.98p)				
			Ch	ELC		
			Fh	1/30		

Command name	Category	Command	Data value	Setting	Remarks
			0h 2h 4h 5h 6h 7h 8h 9h Ah Bh Ch Dh	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC 1/24	
When the output format of AW-HE130/AW-HR140 is set to (1080/50i / 1080/50P / 720/50P / 480/50P)					
			0h 2h 3h 5h 6h 7h 8h 9h Ah Bh Ch	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC	
When the output format of AW-HE130/AW-HR140 is set to (1080/25p)					
			0h 2h 3h 5h 6h 7h 8h 9h Ah Bh Ch Eh	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC 1/25	
Shutter query command	Request	QSH	None		
	Response	OSH:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.		
			0h 3h 5h 6h 7h 8h 9h Ah Bh	Shutter Off 1/100(59.94Hz) 1/120(50Hz) 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan	
			In the case of the AW-HE120		
			0h 3h 5h 6h 7h 8h	Shutter Off 1/100(59.94Hz) 1/120(50Hz) 1/250 1/500 1/1000 1/2000	

Command name	Category	Command	Data value	Setting	Remarks
			9h Ah Bh Ch	1/4000 1/10000 Synchro-Scan ELC	
When the output format of AW-HE130/AW-HR140 is set to (1080/59.94i / 1080/59.94P / 720/59.94P / 480/59.94P)					
			0h 3h 4h 5h 6h 7h 8h 9h Ah Bh Ch	Shutter Off 1/100 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC	
When the output format of AW-HE130/AW-HR140 is set to (1080/29.97p)					
			0h 2h 4h 5h 6h 7h 8h 9h Ah Bh Ch Fh	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC 1/30	
When the output format of AW-HE130/AW-HR140 is set to (1080/23.98p)					
			0h 2h 4h 5h 6h 7h 8h 9h Ah Bh Ch Dh	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC 1/24	
When the output format of AW-HE130/AW-HR140 is set to (1080/50i / 1080/50P / 720/50P / 480/50P)					
			0h 2h 3h 5h 6h 7h 8h 9h Ah Bh Ch	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC	
When the output format of AW-HE130/AW-HR140 is set to (1080/25p)					

Command name	Category	Command	Data value	Setting	Remarks
			0h 2h 3h 5h 6h 7h 8h 9h Ah Bh Ch Eh	Shutter Off 1/60 1/120 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC 1/25	
Synchro scan control command	Control	OMS:[Data]		In the case of the AW-HE50/AW-HE60	
			001h { OFFh	60.24Hz(59.94Hz) 50.20Hz(50Hz) 646.21Hz(59.94Hz) 538.51Hz(50Hz)	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned). When auto iris is On, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off.
				In the case of the AW-HE120	
			001h { OFFh	60.17Hz(59.94Hz) 50.19Hz(50Hz) 644.26Hz(59.94Hz) 537.13Hz(50Hz)	<ul style="list-style-type: none"> While "----" is displayed for Step/Synchro on the OSD menu, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when the "----" display is released.
				In the case of the AW-HE130/AW-HR140	
			001h { OFFh	60.15Hz(59.94Hz) 50.15Hz(50Hz) 642.21Hz(59.94Hz) 535.71Hz(50Hz)	<ul style="list-style-type: none"> While "----" is displayed for Step/Synchro on the OSD menu, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when the "----" display is released.
				In the case of the AW-HE40/AW-UE70/AW-HE42.	
			001h { OFFh	59.94Hz(59.94Hz) 50.00Hz(50Hz) 660.09Hz(59.94Hz) 570.13Hz(50Hz)	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned). While "----" is displayed for Step/Synchro on the OSD menu, the setting is not accepted.
		Response	OMS:[Data]		
Synchro scan query command	Request	QMS	None		
	Response	OMS:[Data]		In the case of the AW-HE50/AW-HE60	
			001h { OFFh	60.24Hz(59.94Hz) 50.20Hz(50Hz) 646.21Hz(59.94Hz) 538.51Hz(50Hz)	
				In the case of the AW-HE120	
			001h {	60.17Hz(59.94Hz) 50.19Hz(50Hz)	

Command name	Category	Command	Data value	Setting	Remarks	
			0FFh	644.26Hz(59.94Hz) 537.13Hz(50Hz)		
In the case of the AW-HE130/AW-HR140						
			001h ` 0FFh	60.15Hz(59.94Hz) 50.15Hz(50Hz) ` 642.21Hz(59.94Hz) 535.71Hz(50Hz)		
In the case of the AW-HE40/AW-UE70/AW-HE42.						
			001h ` 0FFh	59.94Hz(59.94Hz) 50.00Hz(50Hz) ` 660.09Hz(59.94Hz) 570.13Hz(50Hz)		
Auto shutter limit control command	Control	OSD:BF:[Data]	In the case of the AW-UE70/AW-HE42			
			0	[59.94Hz] [50Hz] Off Off		
			1	1/60 1/50		
			2	1/100 1/100		
			3	1/120 1/125		
	Response	OSD:BF:[Data]	4	1/250 1/250		
			In the case of the AW-UE150			
			2	1/100		
			3	1/120		
			4	1/250		
Auto shutter limit query command	Request	QSD:BF	None			
	Response	OSD:BF:[Data]	In the case of the AW-UE70/AW-HE42			
			0	[59.94Hz] [50Hz] Off Off		
			1	1/60 1/50		
			2	1/100 1/100		
			3	1/120 1/125		
			4	1/250 1/250		
	In the case of the AW-UE150					
	2		1/100			
	3		1/120			
	4		1/250			
Shutter SW control command	Control	OSG:59:[Data]	0 1	Off On	※Only enabled for the AK-UB300.	
	Response	OSG:59:[Data]				
Shutter SW query command	Request	QSG:59	None		※Only enabled for the AK-UB300.	
	Response	OSG:59:[Data]	0 1	Off On		
Shutter mode control command	Control	OSG:5A:[Data]	0 1	Shutter Synchro	※Only enabled for the AK-UB300.	
	Response	OSG:5A:[Data]				
Shutter mode	Request	QSG:5A	None		※Only enabled for the AK-UB300.	

Command name	Category	Command	Data value	Setting	Remarks
query command	Response	OSG:5A:[Data]	0 1	Shutter Synchro	
Shutter speed control command	Control	OSG:5D:[Data]	When the output format of AK-UB300 is set to (59.94i / 59.94p)		
			04h 05h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh 0Fh 10h 11h	1/100 1/120 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg 120.0deg 90.0deg 45.0deg	
			When the output format of AK-UB300 is set to (50i / 50p)		
			02h 04h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh 0Fh 10h 11h	1/60 1/100 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg 120.0deg 90.0deg 45.0deg	
		When the output format of AK-UB300 is set to (29.97p / 23.98p)			

Command name	Category	Command	Data value	Setting	Remarks
			00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh 0Fh 10h 11h	1/48 1/50 1/60 1/96 1/100 1/120 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg 120.0deg 90.0deg 45.0deg	
When the output format of AK-UB300 is set to (25p)					
			00h 01h 02h 03h 04h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh 0Fh 10h 11h	1/48 1/50 1/60 1/96 1/100 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg 120.0deg 90.0deg 45.0deg	
Response OSG:5D:[Data]					
Shutter speed query command	Request	QSG:5D	None		※Only enabled for the AK-UB300.
	Response	OSG:5D:[Data]	When the output format of AK-UB300 is set to (59.94i / 59.94p)		
			00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh	1/48 1/50 1/60 1/96 1/100 1/120 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg	

Command name	Category	Command	Data value	Setting	Remarks
			0Eh 0Fh 10h 11h	144.0deg 120.0deg 90.0deg 45.0deg	
When the output format of AK-UB300 is set to (50i / 50p)					
			02h 04h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh 0Fh 10h 11h	1/60 1/100 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg 120.0deg 90.0deg 45.0deg	
When the output format of AK-UB300 is set to (29.97p / 23.98p)					
			00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh 0Fh 10h 11h	1/48 1/50 1/60 1/96 1/100 1/120 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg 120.0deg 90.0deg 45.0deg	
When the output format of AK-UB300 is set to (25p)					
			00h 01h 02h 03h 04h 06h 07h 08h 09h 0Ah 0Bh 0Ch 0Dh 0Eh	1/48 1/50 1/60 1/96 1/100 1/125 1/250 1/500 1/1000 1/1500 1/2000 180.0deg 172.8deg 144.0deg	

Command name	Category	Command	Data value	Setting	Remarks
			0Fh 10h 11h	120.0deg 90.0deg 45.0deg	
Shutter mode control command	Control	OSJ:03:[Data]	0h 1h 2h 3h	Off Step Synchro ELC	※Only enabled for the AW-UE150.
	Response	OSJ:03:[Data]			
Shutter mode query command	Request	QSJ:03	None		※Only enabled for the AW-UE150.
	Response	OSJ:03:[Data]	0h 1h 2h 3h	Off Step Synchro ELC	
Shutter step control command	Control	OSJ:04:[Data]	01h ` 64h	1 ` 100	※Only enabled for the AW-UE150
	Response	OSJ:04:[Data]			
Shutter step control command	Control	OSJ:05:[Data]	01h ` 64h	1 ` 100	※Only enabled for the AW-UE150
	Response	OSJ:05:[Data]			
Shutter step control command	Control	OSJ:06:[Data]	0001h - 2710 h	1/1 - 1/10000	※Only enabled for the AW-UE150 • When the output format of is set to (59.94p / 59.94i) 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (29.97p) 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (23.98p / 24p) 1/24, 1/48, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (50p / 50i) 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (25p) 1/25, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000
	Response	OSJ:06:[Data]			
Shutter step query command	Request	QSJ:06	None		※Only enabled for the AW-UE150
	Response	OSJ:06:[Data]	0001h - 2710 h	1/1 - 1/10000	• When the output format of is set to (59.94p / 59.94i) 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000

Command name	Category	Command	Data value	Setting	Remarks
					<ul style="list-style-type: none"> • When the output format of is set to (29.97p) 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (23.98p / 24p) 1/24, 1/48, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (50p / 50i) 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 • When the output format of is set to (25p) 1/25, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000
Shutter synchro control command	Control	OSJ:07:[Data]	01h ` 64h	1 ` 100	※ Only enabled for the AW-UE150
	Response	OSJ:07:[Data]			
Shutter synchro control command	Control	OSJ:08:[Data]	01h ` 64h	1 ` 100	※ Only enabled for the AW-UE150
	Response	OSJ:08:[Data]			
Shutter synchro control command	Control	OSJ:09:[Data]	00000h - 186A0h	0.0 [Hz] - 10000.0[Hz]	<ul style="list-style-type: none"> ※ Only enabled for the AW-UE150 • When the output format of is set to (59.94p / 59.94i) 60.0Hz~7200Hz • When the output format of is set to (29.97p) 30.0Hz~7200Hz • When the output format of is set to (23.98p / 24p) 24.0Hz~7200Hz • When the output format of is set to (50p / 50i) 50.0Hz~7200Hz • When the output format of is set to (25p) 25.0Hz~7200Hz
	Response	OSJ:09:[Data]			
Shutter synchro query command	Request	QSJ:09	None		<ul style="list-style-type: none"> ※ Only enabled for the AW-UE150.
	Response	OSJ:09:[Data]	00000h - 186A0h	0.0 [Hz] - 10000.0[Hz]	<ul style="list-style-type: none"> • When the output format of is set to (59.94p / 59.94i) 60.0Hz~7200Hz • When the output format of is set to (29.97p) 30.0Hz~7200Hz • When the output format of is

Command name	Category	Command	Data value	Setting	Remarks
					<p>set to (23.98p / 24p) 24.0Hz～7200Hz</p> <ul style="list-style-type: none"> ▪ When the output format of is set to (50p / 50i) 50.0Hz～7200Hz ▪ When the output format of is set to (25p) 25.0Hz～7200Hz 50.0Hz～7200Hz ▪ 25p モード 25.0Hz～7200Hz

Example of use)

• Shutter: 1/500

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSH:6&res=1

[Response] AW-HE50 → PC

200 OK "OSH:6"

• Synchro scan (when 59.94Hz has been set as the frequency): 60.24Hz

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OMS:001&res=1

[Response] AW-HE50 → PC

200 OK "OMS:001"

3.2.5. Frame mix setting

These commands enable the frame mixing of camera to be set and the current settings to be acquired.

Table 3.2.5. Frame mix setting

Command name	Category	Command	Data value	Setting	Remarks	
Frame mix control command	Control	OSA:65:[Data]	In the case of the AW-HE50/AW-HE60			
			00h	Off	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned). When auto iris is On, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off. 	
			06h	6dB		
			0Ch	12dB		
			12h	18dB		
			80h	Auto		
			In the case of the AW-HE120/AW-HE130/AK-UB300/AW-HR140/AW-UE150			
			00h	Off	<ul style="list-style-type: none"> In the case of AW-HE120, when the format is 1050/59.94i and 1080/50i, or the shutter is set to other than OFF, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when the above restrictions are released. In the case of AW-HE130, FrameMix cannot be set to 18 [dB] or higher when either Iris, Gain, or Focus is set to Auto. 	
			06h	6dB		
			0Ch	12dB		
			12h	18dB		
			18h	24dB		
			In the case of the AW-HE40/AW-UE70/AW-HE42			
			00h	Off	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned). When auto iris is On, the setting is not accepted 	
			06h	6dB		
			0Ch	12dB		
			12h	18dB		
			18h	24dB		
			80h	Auto		
Frame mix query command	Request	QSA:65	None			
	Response	OSA:65:[Data]	In the case of the AW-HE50/AW-HE60			
			00h	Off		
			06h	6dB		
			0Ch	12dB		
			12h	18dB		
			80h	Auto		
			In the case of the AW-HE120/AW-HE130/AK-UB300/AW-HR140/AW-UE150			
			00h	Off		
			06h	6dB		
			0Ch	12dB		
			12h	18dB		
			18h	24dB		
			In the case of the AW-HE40/AW-UE70/AW-HE42			
			00h	Off		
			06h	6dB		
			0Ch	12dB		
			12h	18dB		
			18h	24dB		
			80h	Auto		

Command name	Category	Command	Data value	Setting	Remarks
Maximum frame mix value control command	Control	OSE:74:[Data]	00	0dB	<ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). • Maximum frame mix value control (Auto) ※Supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.
			01 02 03	6dB 12dB 18dB	
Maximum frame mix value query command	Request	QSE:74	None		※Supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.
	Response	OSE:74:[Data]	00 01 02 03	0dB 6dB 12dB 18dB	

Example of use)

· Frame mix: 12dB

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:65:0C&res=1

[Response] AW-HE50 → PC

200 OK "OSA:65:0C"

· Maximum frame mix value: 18dB

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:74:03&res=1

[Response] AW-HE50 → PC

200 OK "OSE:74:03"

3.2.6. Gain setting

These commands enable the gain settings of the camera to be established and the current settings to be acquired.

Table 3.2.6. Gain setting

Command name	Category	Command	Data value	Setting	Remarks	
Gain control command	Control	OGU:[Data]	In the case of the AW-HE50/AW-HE60			
			08h	0dB	• Disabled at the FullAuto setting (ER3 is returned).	
			0Bh	3dB		
			0Eh	6dB		
			11h	9dB		
			14h	12dB		
			17h	15dB		
			1Ah	18dB		
			80h	Auto		
			In the case of the AW-HE120			
			08h	0dB	• Value can be set in increments of 1dB.	
			11h	9dB		
			1Ah	18dB		
			80h	Auto		
			In the case of the AW-HE130			
			08h	0db	• Value can be set in increments of 1dB.	
			11h	9db		
			1Ah	18db		
			2Ch	36db		
			80h	Auto		
			In the case of the AW-HR140/AW-UE150			
			08h	0db	• Value can be set in increments of 1dB.	
			11h	9db		
			1Ah	18db		
			2Ch	36db		
			32h	42db		
			80h	Auto		
			In the case of the AW-HE40/AW-UE70/AW-HE42			
			08h	0dB		
			0Bh	3dB	• Disabled at the FullAuto setting (ER3 is returned). • Value can be set in increments of 3dB.	
			0Eh	6dB		
			11h	9dB		
			14h	12dB		
			17h	15dB		
			1Ah	18dB		
Gain query command	Request	QGU	None			
	Response	OGU:[Data]	In the case of the AW-HE50/AW-HE60			
	08h	0dB				
	0Bh	3dB				
	0Eh	6dB				
	11h	9dB				
	14h	12dB				
	17h	15dB				
	1Ah	18dB				

Command name	Category	Command	Data value	Setting	Remarks
			80h	Auto	
In the case of the AW-HE120					
			08h	0dB	
			11h	9dB	
			1Ah	18dB	
			80h	Auto	
In the case of the AW-HE130					
			08h	0db	
			11h	9db	
			1Ah	18db	
			2Ch	36db	
			80h	Auto	
In the case of the AW-HR140/AW-UE150					
			08h	0db	
			11h	9db	
			1Ah	18db	
			2Ch	36db	
			32h	42db	
			80h	Auto	
In the case of the AW-HE40/AW-UE70/AW-HE42					
			08h	0dB	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned).
			0Bh	3dB	
			0Eh	6dB	
			11h	9db	
			38h	48dB	<ul style="list-style-type: none"> Value can be set in increments of 3dB.
			80h	Auto	
In the case of the AW-HE50/AW-HE60					
AGC maximum gain value control command	Control	OSD:69:[Data]	01	6dB	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned).
			02	12dB	
			03	18dB	
In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150					
			01	6dB	
			02	12dB	
			03	18dB	
			04	24dB	
			05	30dB	
			06	36dB	
			07	42dB	
			08	48dB	
In the case of the AW-HE40/AW-UE70/AW-HE42					
AGC maximum gain value	Request	QSD:69	None		
	Response	OSD:69:[Data]	In the case of the AW-HE50/AW-HE60		

Command name	Category	Command	Data value	Setting	Remarks
query command			01 02 03	6dB 12dB 18dB	• Disabled at the FullAuto setting (ER3 is returned). In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150
			01 02 03	6dB 12dB 18dB	
			01 02 03 04 05 06 07 08	24dB 30dB 36dB 42dB 48dB	In the case of the AW-HE40/AW-UE70/AW-HE42
Gain select control command	Control	OGS:[Data]	01h	LOW	※Only enabled for the AK-UB300.
	Response	OGS:[Data]	04h	MID	
			08h	HIGH	
			06h	S.GAIN1	
			0Ch	S.GAIN2	
			0Eh	S.GAIN3	
Gain select query command	Request	QGS	None		※Only enabled for the AK-UB300.
	Response	OGS:[Data]	01h 04h 08h 06h 0Ch 0Eh	LOW MID HIGH S.GAIN1 S.GAIN2 S.GAIN3	
LOW gain control command	Control	OSA:50:[Data]	7Ah ` 7Ch ` 88h	-6dB ` 0dB ` 36dB	※Only enabled for the AK-UB300.
	Response	OSA:50:[Data]			
LOW gain query command	Request	QSA:50	None		
	Response	OSA:50:[Data]	7Ah ` 7Ch ` 88h	-6dB ` 0dB ` 36dB	
MID gain control command	Control	OSA:51:[Data]	7Ah ` 7Ch ` 88h	-6dB ` 0dB ` 36dB	※Only enabled for the AK-UB300.
	Response	OSA:51:[Data]			
MID gain query command	Request	QSA:51	None		※Only enabled for the AK-UB300.
	Response	OSA:51:[Data]	7Ah ` 7Ch ` 88h	-6dB ` 0dB ` 36dB	
HIGH gain	Control	OSA:52:[Data]	7Ah	-6dB	

Command name	Category	Command	Data value	Setting	Remarks
control command	Response	OSA:52:[Data]	\7Ch \88h	\0dB \36dB	
HIGH gain query command	Request	QSA:52	None		※Only enabled for the AK-UB300.
	Response	OSA:52:[Data]	7Ah \7Ch \88h	-6dB \0dB \36dB	
Super gain mode control command	Control	OSA:60:[Data]	0 1 2	S.GAIN1 S.GAIN2 S.GAIN3	※Only enabled for the AK-UB300.
	Response	OSA:60:[Data]	0 1 2	S.GAIN1 S.GAIN2 S.GAIN3	
Super gain mode query command	Request	QSA:60	None		※Only enabled for the AK-UB300.
	Response	OSA:60:[Data]	0 1 2	S.GAIN1 S.GAIN2 S.GAIN3	
Super gain control command	Control	OSI:28:[Data]	0 1	Off On	※Only enabled for the AW-HR140/AW-UE150.
	Response	OSI:28:[Data]	0 1	Off On	
Super gain query command	Request	QSI:28	None		※Only enabled for the AW-HR140/AW-UE150
	Response	OSI:28:[Data]	0 1	Off On	

Example of use)

· Gain: 3dB

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OGU:0B&res=1

[Response] AW-HE50 → PC

200 OK "OGU:0B"

· AGC maximum gain value: 18dB

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:69:03&res=1

[Response] AW-HE50 → PC

200 OK "OSD:69:03"

3.2.7. Color settings

3.2.7.1. R/B gain settings

These commands control the R/B gain levels of the camera, and they enable the current settings to be acquired.

Table 3.2.7.1. R/B gain settings

Command name	Category	Command	Data value	Setting	Remarks
R gain control command	Control	ORI:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			000h	-30	※The AW-HE50 is supported by Ver.2 or a later version.
			1Eh	0	• Setting (menu display value) = (Data value - 0x96) / 5
			096h	0	• Cleared to zero at AWB OK completion.
			3Ch	+30	
			In the case of the AW-HE120/AW-HE130/AW-HR140		
			000h	-150	• Setting (menu display value) = (Data value - 0x96)
			1Eh	0	• Cleared to zero at AWB OK completion.
			096h	0	
			3Ch	+150	
	Control	ORG:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			00h	-30	※The AW-HE50 is supported by Ver.2 or a later version.
			1Eh	0	• Setting (menu display value) = (Data value - 0x1E)
			096h	0	• Cleared to zero at AWB OK completion.
			3Ch	+30	
			In the case of the AW-HE120/AW-HE130/AW-HR140		
			00h	-150	• Setting (menu display value) = (Data value - 0x1E) x 5
			1Eh	0	• Cleared to zero at AWB OK completion.
			096h	0	
			3Ch	+150	
	Response	ORG[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			000h	-30	※The AW-HE50 is supported by Ver.2 or a later version.
			1Eh	0	• Data value of response = (Setting x 5 + 0x96)
			096h	0	
			3Ch	+30	
R gain query command	Request	QRI	None		• The AW-HE50 is supported by Ver.2 or a later version.
	Response	ORI:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			000h	-30	※The AW-HE50 is supported by Ver.2 or a later version.
			1Eh	0	• Data value of response = (Setting + 0x96)
			096h	0	
R gain query command	Request	QGR	None		• The AW-HE50 is supported by Ver.2 or a later version.
			In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			00h	-30	※The AW-HE50 is supported by Ver.2 or a later version.
			1Eh	0	• Data value of response = (Setting + 0x1E)
			096h	0	
	Response	OGR:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			00h	-30	※The AW-HE50 is supported by Ver.2 or a later version.
			1Eh	0	• Data value of response = (Setting + 0x1E)
			096h	0	
			3Ch	+30	

Command name	Category	Command	Data value	Setting	Remarks		
			In the case of the AW-HE120/AW-HE130/AW-HR140				
			00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	• Data value of response = (Setting / 5 + 0x1E)		
R gain control command	Control	OSG:39:[Data]	In the case of the AK-UB300				
			418h ` 800h ` BE8h	-1000 ` 0 ` +1000	.		
	Response	OSG:39:[Data]	In the case of the AW-UE150				
			738H ~ 800h ~ 8C8h	-200 ~ 0 ~ 200			
R gain query command	Request	QSG:39	None				
	Response	OSG:39:[Data]	In the case of the AK-UB300				
			418h ` 800h ` BE8h	-1000 ` 0 ` +1000			
			In the case of the AW-UE150				
			738H ~ 800h ~ 8C8h	-200 ~ 0 ~ 200			
B gain control command	Control	OBI:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/ AW-UE70/AW-HE42				
			000h ` 096h ` 12Ch	-30 ` 0 ` +30	• The AW-HE50 is supported by Ver.2 or a later version. • Setting (menu display value) = (Data value - 0x96) / 5 • Cleared to zero at AWB OK completion.		
			In the case of the AW-HE120/AW-HE130/AW-HR140				
			000h ` 096h ` 12Ch	-150 ` 0 ` +150	• Setting (menu display value) = (Data value - 0x96) • Cleared to zero at AWB OK completion.		
			In the case of the AW-HE50/AW-HE60/AW-HE40/ AW-UE70/AW-HE42				
	Response	OBI:[Data]	00h ` 1Eh ` 3Ch	-30 ` 0 ` +30	• The AW-HE50 is supported by Ver.2 or a later version. • Setting (menu display value) = (Data value - 0x1E) • Cleared to zero at AWB OK completion.		
			In the case of the AW-HE120/AW-HE130/AW-HR140				
			00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	• Setting (menu display value) = (Data value - 0x1E) x 5 • Cleared to zero at AWB OK completion.		
			In the case of the AW-HE50/AW-HE60/AW-HE40/ AW-UE70/AW-HE42				
			00h ` 1Eh ` 3Ch	-30 ` 0 ` +30	• The AW-HE50 is supported by Ver.2 or a later version. • Setting (menu display value) = (Data value - 0x1E) • Cleared to zero at AWB OK completion.		

Command name	Category	Command	Data value	Setting	Remarks	
B gain query command	Request	QBI	None		• The AW-HE50 is supported by Ver.2 or a later version.	
					In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42	
	Response	OBI:[Data]	000h	-30	※The AW-HE50 is supported by Ver.2 or a later version.	
			096h	0	• Data value of response = (Setting x 5 + 0x96)	
			12Ch	+30		
			In the case of the AW-HE120/AW-HE130/AW-HR140			
			000h	-150	• Data value of response = (Setting + 0x96)	
	Request	QGB	096h	0		
			12Ch	+150		
			In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42			
			00h	-30	※The AW-HE50 is supported by Ver.2 or a later version.	
			1Eh	0	• Data value of response = (Setting + 0x1E)	
	Response	OGB:[Data]	3Ch	+30		
			In the case of the AW-HE120/AW-HE130/AW-HR140			
			00h	-150	• Data value of response = (Setting / 5 + 0x1E)	
			1Eh	0		
			3Ch	+150		
B gain control command	Control	OSG:3A:[Data]	In the case of the AK-UB300			
			418h	-1000		
			800h	0		
			~	~		
			BE8h	+1000		
	Response	OSG:3A:[Data]	In the case of the AW-UE150			
			738H	-200		
			~	~		
			800h	0		
			~	~		
B gain query command	Request	QSG:3A	None			
			In the case of the AK-UB300			
			418h	-1000		
			800h	0		
	Response	OSG:3A:[Data]	~	~		
			BE8h	+1000		
			In the case of the AW-UE150			
			738H	-200		
			~	~		

Example of use)

• R gain: -30

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORG:00&res=1

[Response] AW-HE50 → PC

200 OK "ORG:00"

• R gain: +150

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORI:12C&res=1

[Response] AW-HE120 → PC

200 OK "ORI:12C"

• B gain: -30

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OBG:00&res=1

[Response] AW-HE50 → PC

200 OK "OBG:00"

• B gain: +150

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OBI:12C&res=1

[Response] AW-HE120 → PC

200 OK "OBI:12C"

3.2.7.2. R/B pedestal settings

These commands control the R/B pedestal values of the camera, and they enable the current settings to be acquired.

Table 3.2.7.2. R/B pedestal settings

Command name	Category	Command	Data value	Setting	Remarks
R pedestal control command	Control	ORP:[Data]	In the case of the AW-HE120		
			000h	-150	• Setting (menu display value) = (Data value - 0x96)
			096h	0	• Cleared to zero at ABB OK completion.
	Response	ORP:[Data]	12Ch	+150	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			032h	-100	• Setting (menu display value) = (Data value - 0x96)
	Control	ORD:[Data]	096h	0	• Cleared to zero at ABB OK completion.
			0Fah	+100	
			In the case of the AW-HE120		
R pedestal query command	Request	QRP	00h	-150	• Setting (menu display value) =(Data value - 0x1E) x 5
	Response	ORP:[Data]	1Eh	0	• Cleared to zero at ABB OK completion.
			3Ch	+150	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			0Ah	-100	• Setting (menu display value) = (Data value - 0x1E) x 5
	Request	QRD	1Eh	0	• Cleared to zero at ABB OK completion.
			32h	+100	
			In the case of the AW-HE120		
			000h	-150	• Data value of response = (Setting + 0x96)
			096h	0	
	Response	ORD:[Data]	12Ch	+150	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			032h	-100	
			096h	0	
			0Fah	+100	
	Request	QRD	None		※Only supported by the AW-HE120/ AW-HE130.
	Response	ORD:[Data]	In the case of the AW-HE120		
			00h	-150	• Data value of response = (Setting / 5 + 0x1E)
			1Eh	0	
			3Ch	+150	
			In the case of the AW-HE130/AW-HR140		
	Response	ORD:[Data]	0Ah	-100	• Data value of response = (Setting / 5 + 0x1E)
			1Eh	0	
			32h	+100	

Command name	Category	Command	Data value	Setting	Remarks
R pedestal control command	Control	OSG:4C:[Data]	4E0h ` 800h ` B20h	-800 ` 0 ` +800	※Only enabled for the AK-UB300.
	Response	OSG:4C:[Data]			
R pedestal query command	Request	QSG:4C	None		※Only enabled for the AK-UB300.
	Response	OSG:4C:[Data]	4E0h ` 800h ` B20h	-800 ` 0 ` +800	
B pedestal control command	Control	OBP:[Data]	In the case of the AW-HE120		
			000h ` 096h ` 12Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> Setting (menu display value) = (Data value - 0x96) Cleared to zero at ABB OK completion.
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			032h ` 096h ` 0Fah	-100 ` 0 ` +100	<ul style="list-style-type: none"> Setting (menu display value) = (Data value - 0x96) Cleared to zero at ABB OK completion.
			In the case of the AW-HE120		
	Control	OBD:[Data]	00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> Setting (menu display value) = (Data value - 0x1E) x 5 Cleared to zero at ABB OK completion. The value displayed on the menu is the command setting multiplied by 5.
			In the case of the AW-HE130/AW-HR140		
			0Ah ` 1Eh ` 32h	-100 ` 0 ` +100	<ul style="list-style-type: none"> Setting (menu display value) = (Data value - 0x1E) x 5 Cleared to zero at ABB OK completion. The value displayed on the menu is the command setting multiplied by 5.
			In the case of the AW-HE120		
			000h ` 096h ` 12Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> Data value of response = (Setting + 0x96)
B pedestal query command	Request	QBP	In the case of the AW-HE130/AW-HR140 /AW-UE150		
			032h ` 096h ` 0Fah	-100 ` 0 ` +100	<ul style="list-style-type: none"> Data value of response = (Setting + 0x96)
			In the case of the AW-HE120		
			00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> Data value of response = (Setting / 5 + 0x1E)
	Response	OBD:[Data]	In the case of the AW-HE120		
			00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> Data value of response = (Setting / 5 + 0x1E)
			• In the case of the AW-HE130/AW-HR140		
			0Ah	-100	• Data value of response

Command name	Category	Command	Data value	Setting	Remarks
			\ 1Eh \ 32h	\ 0 \ +100	= (Setting / 5 + 0x1E)
B pedestal control command	Control	OSG:4E:[Data]	4E0h \ 800h \	-800 \ 0 \	※Only enabled for the AK-UB300.
	Response	OSG:4E:[Data]	B20h	+800	
B pedestal query command	Request	QSG:4E	None		※Only enabled for the AK-UB300.
	Response	OSG:4E:[Data]	4E0h \ 800h \ B20h	-800 \ 0 \ +800	
Master pedestal control command	Control	OSJ:0F:[Data]	738h ~ 800h ~	-200 ~ 0 ~	※Only enabled for the AW-UE150..
	Response	OSJ:0F:[Data]	8C8h	+200	
Master pedestal query command	Request	QSJ:0F	None		※Only enabled for the AW-UE150..
	Response	OSJ:0F:[Data]	738h ~ 800h ~ 8C8h	-200 ~ 0 ~ +200	
G pedestal control command	Control	OSJ:10:[Data]	032h ~ 096h ~	-100 ~ 0 ~	※Only enabled for the AW-UE150..
	Response	OSJ:10:[Data]	0FAh	+100	
G pedestal query command	Request	QSJ:10	None		※Only enabled for the AW-UE150..
	Response	OSJ:10:[Data]	032h ~ 096h ~ 0FAh	-100 ~ 0 ~ +100	
Pedestal Offset control command	Control	OSJ:11:[Data]	0 1	Off On	※Only enabled for the AW-UE150..
	Response	OSJ:11:[Data]			
Pedestal Offset query command	Request	QSJ:11	None		※Only enabled for the AW-UE150..
	Response	OSJ:11:[Data]	0 1	Off On	

Example of use)

•R pedestal: -150

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORP:000&res=1

[Response] AW-HE120 → PC

200 OK "ORP:000"

•R pedestal: +150

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORD:3C&res=1

[Response] AW-HE120 → PC

200 OK "ORD:3C"

•B pedestal: +150

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OBP:12C&res=1

[Response] AW-HE120 → PC

200 OK "OBP:12C"

•B pedestal: -150

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OBD:00&res=1

[Response] AW-HE120 → PC

200 OK "OBD:00"

3.2.7.3. Color matrix settings

These commands control the color matrix of the camera, and they enable the current settings to be acquired.

Table 3.2.7.3. Color matrix settings

Command name	Category	Command	Data value	Setting	Remarks
Color matrix control command	Control	OSE:31:[Data]	0 1 2 3	Normal EBU NTSC User	<ul style="list-style-type: none"> The linear matrix and color correction settings can be selected only at the User setting. ※Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150.
	Response	OSE:31:[Data]			
Color matrix query command	Request	QSE:31	None		<ul style="list-style-type: none"> ※Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150.
	Response	OSE:31:[Data]	0 1 2 3	Normal EBU NTSC User	
Color matrix control command	Control	OSG:A0:[Data]	0 1	Off On	※Only enabled for the AK-UB300.
	Response	OSG:A0:[Data]			
Color matrix query command	Request	QSG:A0	None		※Only enabled for the AK-UB300.
	Response	OSG:A0:[Data]	0 1	Off On	
Matrix table control command	Control	OSA:00:[Data]	0 1	TABLE A TABLE B	※Only enabled for the AK-UB300.
	Response	OSA:00:[Data]			
Matrix table query command	Request	QSA:00	None		※Only enabled for the AK-UB300.
	Response	OSA:00:[Data]	0 1	TABLE A TABLE B	
Linear matrix control command	Control	OSA:84:[Data]	0 1 2	Off On On	※Only enabled for the AK-UB300.
	Response	OSA:84:[Data]			
Linear matrix query command	Request	QSA:84	None		※Only enabled for the AK-UB300.
	Response	OSA:84:[Data]	0 1 2	Off On On	
Linear matrix R-G control command	Control	OSD:2F:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:2F:[Data]			
	Control	OSD:A4:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:A4:[Data]			

Command name	Category	Command	Data value	Setting	Remarks
Linear matrix R-G query command	Request	QSD:2F	None		※Only supported by the AW-HE120.
	Response	OSD:2F:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
	Request	QSD:A4	None		※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A4:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Linear matrix R-G(N) control command	Control	OSG:A5:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A5:N:[Data]			
Linear matrix R-G(N) query command	Request	QSG:A5:N	None		※Only enabled for the AK-UB300.
	Response	OSG:A5:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix R-G(P) control command	Control	OSG:A5:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A5:P:[Data]			
Linear matrix R-G(P) query command	Request	QSG:A5:P	None		※Only enabled for the AK-UB300.
	Response	OSG:A5:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix R-B control command	Control	OSD:30:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
	Response	OSD:30:[Data]			
	Control	OSD:A5:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A5:[Data]			
Linear matrix R-B query command	Request	QSD:30	None		※Only supported by the AW-HE120.
	Response	OSD:30:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
	Request	QSD:A5	None		※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A5:[Data]	41h `	-63 `	

Command name	Category	Command	Data value	Setting	Remarks
			80h ` BFh	0 ` +63	
Linear matrix R-B(N) control command	Control	OSG:A6:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A6:N:[Data]			
Linear matrix R-B(N) query command	Request	QSG:A6:N	None		※Only enabled for the AK-UB300.
	Response	OSG:A6:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix R-B(P) control command	Control	OSG:A6:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A6:P:[Data]			
Linear matrix R-B(P) query command	Request	QSG:A6:P	None		※Only enabled for the AK-UB300.
	Response	OSG:A6:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix G-R control command	Control	OSD:31:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
	Response	OSD:31:[Data]			
	Control	OSD:A6:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A6:[Data]			
	Request	QSD:31	None		※Only supported by the AW-HE120.
Linear matrix G-R query command	Response	OSD:31:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
	Request	QSD:A6	None		※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A6:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Linear matrix G-R(N) control command	Control	OSG:A7:N:[Data]	00h ` 1Fh `	-31 ` 0 `	※Only enabled for the AK-UB300.

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSG:A7:N:[Data]	3Eh	+31	
Linear matrix G-R(N) query command	Request	QSG:A7:N	None		※Only enabled for the AK-UB300.
	Response	OSG:A7:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix G-R(P) control command	Control	OSG:A7:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A7:P:[Data]			
Linear matrix G-R(P) query command	Request	QSG:A7:P	None		※Only enabled for the AK-UB300.
	Response	OSG:A7:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix G-B control command	Control	OSD:32:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
	Response	OSD:32:[Data]			
	Control	OSD:A7:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
Linear matrix G-B query command	Request	QSD:32	None		※Only supported by the AW-HE120.
	Response	OSD:32:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
	Request	QSD:A7	None		※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A7:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Linear matrix G-B(N) control command	Control	OSG:A8:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A8:N:[Data]			
Linear matrix	Request	QSG:A8:N	None		※Only enabled for the AK-UB300.

Command name	Category	Command	Data value	Setting	Remarks
G-B(N) query command	Response	OSG:A8:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix G-B(P) control command	Control	OSG:A8:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A8:P:[Data]			
Linear matrix G-B(P) query command	Request	QSG:A8:P	None		※Only enabled for the AK-UB300.
	Response	OSG:A8:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix B-R control command	Control	OSD:33:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
	Response	OSD:33:[Data]			
	Control	OSD:A8:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A8:[Data]			
Linear matrix B-R query command	Request	QSD:33	None		※Only supported by the AW-HE120.
	Response	OSD:33:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
	Request	QSD:A8	None		※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A8:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Linear matrix B-R(N) control command	Control	OSG:A9:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:A9:N:[Data]			
Linear matrix B-R(N) query command	Request	QSG:A9:N	None		※Only enabled for the AK-UB300.
	Response	OSG:A9:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix B-R(P) control command	Control	OSG:A9:P:[Data]	00h ` 1Fh `	-31 ` 0 `	※Only enabled for the AK-UB300.

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSG:A9:P:[Data]	3Eh	+31	
Linear matrix B-R(P) query command	Request	QSG:A9:P	None		※Only enabled for the AK-UB300.
	Response	OSG:A9:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix B-G control command	Control	OSD:34:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
	Response	OSD:34:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
Linear matrix B-G query command	Request	QSD:34	None		※Only supported by the AW-HE120.
	Response	OSD:34:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
	Request	QSD:A9	None		※Only supported by the AW-HE130/AW-HR140 /AW-UE150.
	Response	OSD:A9:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Linear matrix B-G(N) control command	Control	OSG:AA:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:AA:N:[Data]			
Linear matrix B-G(N) query command	Request	QSG:AA:N	None		※Only enabled for the AK-UB300.
	Response	OSG:AA:N:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Linear matrix B-G(P) control command	Control	OSG:AA:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	※Only enabled for the AK-UB300.
	Response	OSG:AA:P:[Data]			
Linear matrix B-G(P) query command	Request	QSG:AA:P	None		※Only enabled for the AK-UB300.
	Response	OSG:AA:P:[Data]	00h ` 1Fh ` 3Eh	-31 ` 0 ` +31	
Color correction control command	Control	OSA:85:[Data]	0	Off	※Only enabled for the AK-UB300.
	Response	OSA:85:[Data]	1	On	

Command name	Category	Command	Data value	Setting	Remarks
Color correction query command	Request	QSA:85	None		※Only enabled for the AK-UB300.
	Response	OSA:85:[Data]	0 1	Off On	
Color correct table control command	Control	OSG:A4:[Data]	0	A	※Only enabled for the AK-UB300.
	Response	OSG:A4:[Data]	1	B	
Color correct table query command	Request	QSG:A4	None		※Only enabled for the AK-UB300.
	Response	OSG:A4:[Data]	0 1	A B	
Color correction R GAIN/SATURATION control command	Control	OSD:86:[Data]	In the case of the AW-HE120		
			01h	-127	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			1h	-127	
			80h	0	
			1h	-127	
			FFh	+127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h	-63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			1h	-63	
			80h	0	
			1h	-63	
			BFh	+63	
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h	-31	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			1h	-31	
			80h	0	
			1h	-31	
			9Fh	+31	
			In the case of the AK-UB300		
			01h	-127	
			1h	-127	
			80h	0	
			1h	-127	
			FEh	+126	
	Response	OSD:86:[Data]			
Color correction R GAIN/SATURATION query command	Request	QSD:86	None		
	Response	OSD:86:[Data]	In the case of the AW-HE120		
			01h	-127	
			1h	-127	
			80h	0	
			1h	-127	
			FFh	+127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h	-63	
			1h	-63	
			80h	0	
			1h	-63	
			BFh	+63	
			In the case of the AW-HE40/AW-UE70/AW-HE42		

Command name	Category	Command	Data value	Setting	Remarks	
			61h ` 80h ` 9Fh	-31 ` 0 ` +31		
			In the case of the AK-UB300			
			01h ` 80h ` FEh	-127 ` 0 ` +126		
Color correction R PHASE control command	Control	OSD:87:[Data]	In the case of the AW-HE120/AK-UB300			
			01h ` 80h ` FFh	-127 ` 0 ` +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 	
			In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150			
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 	
	Response	OSD:87:[Data]				
Color correction R PHASE query command	Request	QSD:87	None			
	Response	OSD:87:[Data]	In the case of the AW-HE120/AK-UB300			
			01h ` 80h ` FFh	-127 ` 0 ` +127		
			In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150			
			41h ` 80h ` BFh	-63 ` 0 ` +63		
Color correction R_R_YI GAIN/ SATURATION control command	Control	OSD:9C:[Data]	In the case of the AW-HE130/AW-HR140 /AW-UE150			
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 	
			In the case of the AW-HE40/AW-UE70/AW-HE42			
			61h ` 80h	-31 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 	

Command name	Category	Command	Data value	Setting	Remarks
			l 9Fh	0 l +31	• Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:9C:[Data]			
Color correction R_R_YI GAIN/ SATURATION query command	Request	QSD:9C	None		
	Response	OSD:9C:[Data]	41h l 80h l BFh	-63 l 0 l +63	In the case of the AW-HE130/AW-HR140 /AW-UE150
			61h l 80h l 9Fh	-31 l 0 l +31	In the case of the AW-HE40/AW-UE70/AW-HE42
Color correction R_R_YI PHASE control command	Control	OSD:9D:[Data]	41h l 80h l BFh	-63 l 0 l +63	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150
	Response	OSD:9D:[Data]			• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
Color correction R_R_YI PHASE query command	Request	QSD:9D	None		
	Response	OSD:9D:[Data]	41h l 80h l BFh	-63 l 0 l +63	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150
Color correction R_YI GAIN/ SATURATION control command	Control	OSD:88:[Data]	01h l 80h l FFh	-127 l 0 l +127	In the case of the AW-HE120
			41h l 80h l BFh	-63 l 0 l +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			01h l 80h l FEh	-127 l 0 l +126	In the case of the AW-HE130/AW-HR140 /AW-UE150
Color correction R_YI GAIN/ SATURATION	Request	QSD:88	None		
	Response	OSD:88:[Data]	01h	-127	In the case of the AW-HE120

Command name	Category	Command	Data value	Setting	Remarks
query command			\r 80h \r FFh	\r 0 \r +127	
In the case of the AW-HE130/AW-HR140 /AW-UE150					
			41h \r 80h \r BFh	-63 \r 0 \r +63	
In the case of the AK-UB300					
			01h \r 80h \r FEh	-127 \r 0 \r +126	
In the case of the AW-HE120/AK-UB300					
Color correction R_YI PHASE control command	Control	OSD:89:[Data]	01h \r 80h \r FFh	-127 \r 0 \r +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			41h \r 80h \r BFh	-63 \r 0 \r +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. <p>※Only supported by the AW-HE120/AW-HE130.</p>
Color correction R_YI PHASE query command	Request	QSD:89	None		
	Response	OSD:89:[Data]	01h \r 80h \r FFh	-127 \r 0 \r +127	In the case of the AW-HE120/AK-UB300
In the case of the AW-HE130/AW-HR140 /AW-UE150					
Color correction R_YI_YI GAIN/ SATURATION control command	Control	OSD:9E:[Data]	41h \r 80h \r BFh	-63 \r 0 \r +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			61h \r 80h \r 9Fh	-31 \r 0 \r +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
Color correction R_YI_YI GAIN/	Request	QSD:9E	None		
	Response	OSD:9E:[Data]	In the case of the AW-HE130/AW-HR140 /AW-UE150		

Command name	Category	Command	Data value	Setting	Remarks
SATURATION query command			41h ` 80h ` BFh	-63 ` 0 ` +63	
In the case of the AW-HE40/AW-UE70/AW-HE42					
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	
Color correction R_YI_YI PHASE control command	Control	OSD:9F:[Data]	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
Color correction R_YI PHASE query command	Request	QSD:9F	None		
	Response	OSD:9F:[Data]	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	
Color correction YI GAIN/ SATURATION control command	Control	OSD:8A:[Data]	In the case of the AW-HE120		
			01h ` 80h ` FFh	-127 ` 0 ` +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AK-UB300		
			01h ` 80h ` FEh	-127 ` 0 ` +126	
Color correction YI GAIN/ SATURATION query command	Request	QSD:8A	None		
	Response	OSD:8A:[Data]	In the case of the AW-HE120		
			01h ` 80h ` FFh	-127 ` 0 ` +127	

Command name	Category	Command	Data value	Setting	Remarks
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	
			In the case of the AK-UB300		
			01h ` 80h ` FEh	-127 ` 0 ` +126	
Color correction YI PHASE control command	Control	OSD:8B:[Data]	In the case of the AW-HE120/AK-UB300		
			01h ` 80h ` FFh	-127 ` 0 ` +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE130/AW-HR140/AW-HE40/ AW-UE70/AW-HE42 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. <p>※Only supported by the AW-HE120/ AW-HE130.</p>
Color correction YI PHASE query command	Request	QSD:8B	None		
	Response	OSD:8B:[Data]	In the case of the AW-HE120/AK-UB300		
			01h ` 80h ` FFh	-127 ` 0 ` +127	
			In the case of the AW-HE130/AW-HR140/AW-HE40/ AW-UE70/AW-HE42 /AW-UE150		
Color correction YI_G GAIN/ SATURATION control command	Control	OSD:8C:[Data]	In the case of the AW-HE120		
			01h ` 80h ` FFh	-127 ` 0 ` +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h ` 80h	-63 ` 0	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks
			l BFh	l +63	• Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AK-UB300		
			01h l 80h l FEh	-127 l 0 l +126	
	Response	OSD:8C:[Data]			
Color correction YI_G GAIN/ SATURATION query command	Request	QSD:8C	None		
	Response	OSD:8C:[Data]	In the case of the AW-HE120		
			01h l 80h l FFh	-127 l 0 l +127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h l 80h l BFh	-63 l 0 l +63	
			In the case of the AK-UB300		
			01h l 80h l FEh	-127 l 0 l +126	
			In the case of the AW-HE120/AK-UB300		
			01h l 80h l FFh	-127 l 0 l +127	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
Color correction YI_G PHASE control command	Control	OSD:8D:[Data]	41h l 80h l BFh	-63 l 0 l +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120/ AW-HE130.
Color correction YI_G PHASE query command	Request	QSD:8D	None		
	Response	OSD:8D:[Data]	In the case of the AW-HE120/AK-UB300		
			01h l 80h l FFh	-127 l 0 l +127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h l 80h l BFh	-63 l 0 l +63	
			In the case of the AW-HE120/AK-UB300		
			01h l 80h l FFh	-127 l 0 l +127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h l 80h l BFh	-63 l 0 l +63	
			In the case of the AW-HE120		
Color correction G GAIN/ SATURATION control command	Control	OSD:8E:[Data]	01h l 80h l FFh	-127 l 0 l +127	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks
			41h ` 80h ` BFh	-63 ` 0 ` +63	In the case of the AW-HE130/AW-HR140 /AW-UE150 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	In the case of the AW-HE40/AW-UE70/AW-HE42 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			01h ` 80h ` FEh	-127 ` 0 ` +126	In the case of the AK-UB300
Color correction G GAIN/SATURATION query command	Request	QSD:8E	None		
	Response	OSD:8E:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	In the case of the AW-HE120
			41h ` 80h ` BFh	-63 ` 0 ` +63	In the case of the AW-HE130/AW-HR140 /AW-UE150
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	In the case of the AW-HE40/AW-UE70/AW-HE42
			01h ` 80h ` FEh	-127 ` 0 ` +126	In the case of the AK-UB300
			01h ` 80h ` FFh	-127 ` 0 ` +127	In the case of the AW-HE120/AK-UB300
Color correction G PHASE control command	Control	OSD:8F:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			41h ` 80h	-63 ` 0	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.
			80h	0	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks
			l BFh	l +63	• Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:8F:[Data]			
Color correction G PHASE query command	Request	QSD:8F	None		
	Response	OSD:8F:[Data]	In the case of the AW-HE120/AK-UB300		
			01h l 80h l FFh	-127 l 0 l +127	
			In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150		
			41h l 80h l BFh	-63 l 0 l +63	
Color correction G_Cy GAIN/SATURATION control command	Control	OSD:90:[Data]	In the case of the AW-HE120		
			01h l 80h l FFh	-127 l 0 l +127	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h l 80h l BFh	-63 l 0 l +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h l 80h l 9Fh	-31 l 0 l +31	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AK-UB300		
			01h l 80h l FEh	-127 l 0 l +126	
Color correction G_Cy GAIN/SATURATION query command	Request	QSD:90	None		
	Response	OSD:90:[Data]	In the case of the AW-HE120		
			01h l 80h l FFh	-127 l 0 l +127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h	-63	

Command name	Category	Command	Data value	Setting	Remarks
			\ 80h \ BFh	\ 0 \ +63	
In the case of the AW-HE40/AW-UE70/AW-HE42					
			61h \ 80h \ 9Fh	-31 \ 0 \ +31	
In the case of the AK-UB300					
			01h \ 80h \ FEh	-127 \ 0 \ +126	
Color correction G_Cy PHASE control command					
	Control	OSD:91:[Data]	In the case of the AW-HE120/AK-UB300		
			01h \ 80h \ FFh	-127 \ 0 \ +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150					
			41h \ 80h \ BFh	-63 \ 0 \ +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			Response	OSD:91:[Data]	
Color correction G_Cy PHASE query command					
	Request	QSD:91	In the case of the AW-HE120/AK-UB300		
			01h \ 80h \ FFh	-127 \ 0 \ +127	
In the case of the AW-HE130/AW-HE40/AW-UE70/AW-HE42 /AW-UE150					
	Response	OSD:91:[Data]	41h \ 80h \ BFh	-63 \ 0 \ +63	
			Color correction Cy GAIN/SATURATION control command	OSD:92:[Data]	In the case of the AW-HE120
	Control		01h \ 80h \ FFh	-127 \ 0 \ +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks		
			In the case of the AW-HE130/AW-HR140/AW-UE150				
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			In the case of the AW-HE40/AW-UE70/AW-HE42				
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			In the case of the AK-UB300				
			01h ` 80h ` FEh	-127 ` 0 ` +126			
Color correction Cy GAIN/ SATURATION query command	Request	QSD:92	None				
	Response	OSD:92:[Data]	In the case of the AW-HE120				
			01h ` 80h ` FFh	-127 ` 0 ` +127			
			In the case of the AW-HE130/AW-HR140 /AW-UE150				
			41h ` 80h ` BFh	-63 ` 0 ` +63			
			In the case of the AW-HE40/AW-UE70/AW-HE42				
Color correction Cy PHASE control command	Control	OSD:93:[Data]	In the case of the AK-UB300				
			01h ` 80h ` FEh	-127 ` 0 ` +126			
			In the case of the AW-HE120/AK-UB300				
			01h ` 80h ` FFh	-127 ` 0 ` +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150				
			41h `	-63 `	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the 		

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSD:93:[Data]	80h ` BFh	0 ` +63	MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
Color correction Cy PHASE query command	Request	QSD:93	None		
	Response	OSD:93:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	In the case of the AW-HE120/AK-UB300
Color correction Cy_B GAIN/ SATURATION control command	Control	OSD:94:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150
Color correction Cy_B GAIN/ SATURATION query command	Request	QSD:94	01h ` 80h ` FEh	-127 ` 0 ` +126	In the case of the AW-HE120 <ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HR140 /AW-UE150 <ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. In the case of the AK-UB300

Command name	Category	Command	Data value	Setting	Remarks
			\ 80h \ FEh	\ 0 \ +126	
Color correction Cy_B PHASE control command	Control	OSD:95:[Data]	In the case of the AW-HE120/AK-UB300		
			01h \ 80h \ FFh	-127 \ 0 \ +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
Color correction Cy_B PHASE query command		OSD:95:[Data]	41h \ 80h \ BFh	-63 \ 0 \ +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120/ AW-HE130.
			Request QSD:95		
			In the case of the AW-HE120/AK-UB300		
Color correction B GAIN/ SATURATION control command	Control	OSD:96:[Data]	01h \ 80h \ FFh	-127 \ 0 \ +127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h \ 80h \ BFh	-63 \ 0 \ +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
In the case of the AW-HE120					
			61h \ 80h \ 9Fh	-31 \ 0 \ +31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case of the AK-UB300		

Command name	Category	Command	Data value	Setting	Remarks
			01h ` 80h ` FEh	-127 ` 0 ` +126	
			Response	OSD:96:[Data]	
Color correction B GAIN/SATURATION query command	Request	QSD:96	None		
		OSD:96:[Data]	In the case of the AW-HE120		
			01h ` 80h ` FFh	-127 ` 0 ` +127	
			In the case of the AW-HE130/AW-HR140 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	
			In the case of the AK-UB300		
			01h ` 80h ` FEh	-127 ` 0 ` +126	
			In the case of the AW-HE120/AK-UB300		
			01h ` 80h ` FFh	-127 ` 0 ` +127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Control	OSD:97:[Data]	In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150		
			41h ` 80h ` BFh	-63 ` 0 ` +63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			Response	OSD:97:[Data]	
	Request	QSD:97	None		
			In the case of the AW-HE120/AK-UB300		
	Response	OSD:97:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	
			In the case of the AW-HE130/AW-HR140/AW-HE40/AW-UE70/AW-HE42 /AW-UE150		

Command name	Category	Command	Data value	Setting	Remarks
			41h ` 80h ` BFh	-63 ` 0 ` +63	
Color correction B_Mg GAIN/ SATURATION control command	Control	OSD:80:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	In the case of the AW-HE120 <ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			41h ` 80h ` BFh	-63 ` 0 ` +63	In the case of the AW-HE130/AW-HR140 /AW-UE150 <ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			01h ` 80h ` FEh	-127 ` 0 ` +126	In the case of the AK-UB300
Color correction B_Mg GAIN/ SATURATION query command	Request	QSD:80	None		
	Response	OSD:80:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	In the case of the AW-HE120
			41h ` 80h ` BFh	-63 ` 0 ` +63	In the case of the AW-HE130/AW-HR140 /AW-UE150
			01h ` 80h ` FEh	-127 ` 0 ` +126	In the case of the AK-UB300
Color correction B_Mg PHASE control command	Control	OSD:81:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	In the case of the AW-HE120/AK-UB300 <ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
			41h ` 80h ` BFh	-63 ` 0 ` +63	In the case of the AW-HE130/AW-HR140 /AW-UE150 <ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSD:81:[Data]			※Only supported by the AW-HE120/AW-HE130.
Color correction B_Mg PHASE query command	Request	QSD:81	None		
	Response	OSD:81:[Data]		In the case of the AW-HE120/AK-UB300	
			01h	-127	
			1	1	
			80h	0	
			1	1	
			FFh	+127	
				In the case of the AW-HE130/AW-HR140 /AW-UE150	
			41h	-63	
			1	1	
			80h	0	
			1	1	
			Bfh	+63	
Color correction Mg GAIN/ SATURATION control command	Control	OSD:82:[Data]		In the case of the AW-HE120	
			01h	-127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			1	1	
			80h	0	
			1	1	
			FFh	+127	
				In the case of the AW-HE130/AW-HR140 /AW-UE150	
			41h	-63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			1	1	
			80h	0	
			1	1	
			Bfh	+63	
				In the case of the AW-HE40/AW-UE70/AW-HE42	
			61h	-31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			1	1	
			80h	0	
			1	1	
			9fh	+31	
				In the case of the AK-UB300	
			01h	-127	
			1	1	
			80h	0	
			1	1	
			FEh	+126	
Color correction Mg GAIN/ SATURATION query command	Response	OSD:82:[Data]			
	Request	QSD:82	None		
	Response	OSD:82:[Data]		In the case of the AW-HE120	
			01h	-127	
			1	1	
			80h	0	
			1	1	
			FFh	+127	
				In the case of the AW-HE130/AW-HR140 /AW-UE150	
			41h	-63	
			1	1	
			80h	0	
			1	1	
			Bfh	+63	
				In the case of the AW-HE40/AW-UE70/AW-HE42	
			61h	-31	
			1	1	
			80h	0	
			1	1	
			9fh	+31	

Command name	Category	Command	Data value	Setting	Remarks		
			In the case of the AK-UB300				
			01h	-127			
			1	1			
			80h	0			
			1	1			
			FEh	+126			
Color correction Mg PHASE control command	Control	OSD:83:[Data]	In the case of the AW-HE120/AK-UB300				
			01h	-127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			1	1			
			80h	0			
			1	1			
			FFh	+127			
			In the case of the AW-HE130/AW-HR140/AW-HE40/ AW-UE70/AW-HE42 /AW-UE150				
			41h	-63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			1	1			
			80h	0			
			1	1			
			BFh	+63			
	Response	OSD:83:[Data]	※Only supported by the AW-HE120/ AW-HE130.				
Color correction Mg PHASE query command	Request	QSD:83	None				
	Response	OSD:83:[Data]	In the case of the AW-HE120/AK-UB300				
			01h	-127			
			1	1			
			80h	0			
			1	1			
			FFh	+127			
			In the case of the AW-HE130/AW-HE40/ AW-UE70/AW-HE42 /AW-UE150				
			41h	-63			
			1	1			
			80h	0			
			1	1			
			BFh	+63			
Color correction Mg_R GAIN/ SATURATION control command	Control	OSD:84:[Data]	In the case of the AW-HE120				
			01h	-127	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			1	1			
			80h	0			
			1	1			
			FFh	+127			
			In the case of the AW-HE130/AW-HR140 /AW-UE150				
			41h	-63	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			1	1			
			80h	0			
			1	1			
			BFh	+63			
			In the case of the AW-HE40/AW-UE70/AW-HE42				
			61h	-31	<ul style="list-style-type: none"> Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 		
			1	1			
			80h	0			
			1	1			
			9Fh	+31			
			In the case of the AK-UB300				
			01h	-127			
			1	1			
			80h	0			
			1	1			
			FEh	+126			
	Response	OSD:84:[Data]					

Command name	Category	Command	Data value	Setting	Remarks
Color correction Mg_R GAIN/ SATURATION query command	Request	QSD:84	None		
	Response	OSD:84:[Data]		In the case of the AW-HE120	
			01h	-127	
			1	1	
			80h	0	
			1	1	
			FFh	+127	
				In the case of the AW-HE130/AW-HR140 /AW-UE150	
			41h	-63	
			1	1	
			80h	0	
			1	1	
			Bfh	+63	
				In the case of the AW-HE40/AW-UE70/AW-HE42	
			61h	-31	
			1	1	
			80h	0	
			1	1	
			9Fh	+31	
				In the case of the AK-UB300	
			01h	-127	
			1	1	
			80h	0	
			1	1	
			FEh	+126	
Color correction Mg_R PHASE control command	Control	OSD:85:[Data]		In the case of the AW-HE120/AK-UB300	
			01h	-127	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.
			1	1	• Setting is possible when User has been selected as the MatrixType setting.
			80h	0	
			1	1	
			FFh	+127	
				In the case of the AW-HE130/AW-HR140/AW-HE40/ AW-UE70/AW-HE42 /AW-UE150	
			41h	-63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.
			1	1	• Setting is possible when User has been selected as the MatrixType setting.
			80h	0	
			1	1	
			Bfh	+63	
	Response	OSD:85:[Data]			
Color correction Mg_R PHASE query command	Request	QSD:85	None		
	Response	OSD:85:[Data]		In the case of the AW-HE120/AK-UB300	
			01h	-127	
			1	1	
			80h	0	
			1	1	
			FFh	+127	
				In the case of the AW-HE130/AW-HR140/AW-HE40/ AW-UE70/AW-HE42 /AW-UE150	
			41h	-63	
			1	1	
			80h	0	
			1	1	
			Bfh	+63	
Color correction Mg_R R GAIN/	Control	OSD:9A:[Data]		In the case of the AW-HE130/AW-HR140 /AW-UE150	
			41h	-63	• Settings cannot be changed if Normal,

Command name	Category	Command	Data value	Setting	Remarks
SATURATION control command			1 80h 1 BFh	1 0 1 +63	EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130.
			Response	OSD:9A:[Data]	
Color correction Mg_R_R PHASE control command	Request	QSD:9A	None		
	Response	OSD:9A:[Data]	41h 1 80h 1 BFh	-63 1 0 1 +63	In the case of the AW-HE130/AW-HR140 /AW-UE150
Color correction Mg_R_R PHASE control command	Control	OSD:9B:[Data]	41h 1 80h 1 BFh	-63 1 0 1 +63	In the case of the AW-HE130/AW-HR140 /AW-UE150 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130.
	Response	OSD:9B:[Data]			
Color correction Mg_R_R PHASE query command	Request	QSD:9B	None		
	Response	OSD:9B:[Data]	41h 1 80h 1 BFh	-63 1 0 1 +63	In the case of the AW-HE130/AW-HR140 /AW-UE150
Color correction Cy_Cy_B GAIN/ SATURATION control command	Control	OSD:AA:[Data]	61h 1 80h 1 9Fh	-31 1 0 1 +31	In the case of the AW-HE40/AW-UE70/AW-HE42 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:AA:[Data]			
Color correction Cy_Cy_B GAIN/ SATURATION query command	Request	QSD:AA	None		
	Response	OSD:AA:[Data]	61h 1 80h 1 9Fh	-31 1 0 1 +31	In the case of the AW-HE40/AW-UE70/AW-HE42
Color correction Cy_Cy_B PHASE control command	Control	OSD:AB:[Data]	41h 1 80h 1 BFh	-63 1 0 1 +63	In the case of the AW-HE40/AW-UE70/AW-HE42 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:AB:[Data]			
Color correction Cy_Cy_B PHASE query command	Request	QSD:AB	None		
	Response	OSD:AB:[Data]	41h 1 80h 1 BFh	-63 1 0 1 +63	In the case of the AW-HE40/AW-UE70/AW-HE42
Color correction Cy_B_B GAIN/	Control	OSD:AC:[Data]	61h 1	-31 1	In the case of the AW-HE40/AW-UE70/AW-HE42 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the

Command name	Category	Command	Data value	Setting	Remarks
SATURATION control command			80h ` 9Fh	` 0 ` +31	MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
Color correction Cy_B_B GAIN/ SATURATION query command	Request	QSD:AC	None		
	Response	OSD:AC:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction Cy_B_B PHASE control command	Control	OSD:AD:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			41h ` 80h ` BFh	-63 ` 0 ` +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:AD:[Data]			
Color correction Cy_B_B PHASE query command	Request	QSD:AD	None		
	Response	OSD:AD:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction B_B_Mg GAIN/ SATURATION control command	Control	OSD:C0:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:C0:[Data]			
Color correction B_B_Mg GAIN/ SATURATION query command	Request	QSD:C0	None		
	Response	OSD:C0:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction B_B_Mg PHASE control command	Control	OSD:C1:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			41h ` 80h ` BFh	-63 ` 0 ` +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:C1:[Data]			
Color correction B_B_Mg PHASE query command	Request	QSD:C1	None		
	Response	OSD:C1:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction B_Mg_Mg GAIN/	Control	OSD:C2:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h `	-31 `	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the

Command name	Category	Command	Data value	Setting	Remarks
SATURATION control command			80h ` 9Fh	` 0 ` +31	MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
Color correction B_Mg_Mg GAIN/ SATURATION query command	Request	QSD:C2	None		
	Response	OSD:C2:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction B_Mg_Mg PHASE control command	Control	OSD:C3:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			41h ` 80h ` BFh	-63 ` 0 ` +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:C3:[Data]			
Color correction B_Mg_Mg PHASE query command	Request	QSD:C3	None		
	Response	OSD:C3:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction YI_YI_G GAIN/ SATURATION control command	Control	OSD:C4:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:C4:[Data]			
Color correction YI_YI_G GAIN/ SATURATION query command	Request	QSD:C4	None		
	Response	OSD:C4:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction YI_YI_G PHASE control command	Control	OSD:C5:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			41h ` 80h ` BFh	-63 ` 0 ` +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:C5:[Data]			
Color correction YI_YI_G PHASE query command	Request	QSD:C5	None		
	Response	OSD:C5:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
Color correction YI_G_G GAIN/	Control	OSD:C6:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			61h `	-31 `	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the

Command name	Category	Command	Data value	Setting	Remarks
SATURATION control command			80h ` 9Fh	` 0 ` +31	MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
Color correction YI_G_G GAIN/ SATURATION query command	Request	QSD:C6	None		
	Response	OSD:C6:[Data]		In the case of the AW-HE40/AW-UE70/AW-HE42	
Color correction YI_G_G PHASE control command	Control	OSD:C7:[Data]		In the case of the AW-HE40/AW-UE70/AW-HE42	
			41h ` 80h ` BFh	-63 ` 0 ` +63	• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
			Response	OSD:C7:[Data]	
Color correction YI_G_G PHASE query command	Request	QSD:C7	None		
	Response	OSD:C7:[Data]		In the case of the AW-HE40/AW-UE70/AW-HE42	
Color correction YI_YI_G GAIN/ SATURATION control command	Control	OSJ:1C:[Data]		In the case of the AW-UE150	
	Response	OSJ:1C:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Color correction YI_YI_G GAIN/ SATURATION query command	Request	QSJ:1C	None		
	Response	OSJ:1C:[Data]		In the case of the AW-UE150	
Color correction YI_YI_G PHASE control command	Control	OSJ:1D:[Data]		In the case of the AW-UE150	
	Response	OSJ:1D:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
Color correction YI_YI_G PHASE query command	Request	QSJ:1D	None		
	Response	OSJ:1D:[Data]		In the case of the AW-UE150	
Adaptive Matrix control command	Control	OSJ:4F:[Data]	0 1	OFF ON	※Only supported by the AW-UE150
	Response	OSJ:4F:[Data]			
Adaptive Matrix query command	Request	QSJ:4F	None		
	Response	OSJ:4F:[Data]	0 1	OFF ON	

Example of use)

• Color matrix: User

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:31:3&res=1

[Response] AW-HE120 → PC

200 OK "OSE:31:3"

• Linear matrix R-G: +31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:2F:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:2F:3E"

• Linear matrix R-B: +31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:30:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:30:3E"

• Linear matrix G-R: +31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:31:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:31:3E"

• Linear matrix G-B: +31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:32:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:32:3E"

• Linear matrix B-R: +31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:33:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:33:3E"

• Linear matrix B-G: +31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:34:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:34:3E"

• Color correction R GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:86:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:86:FF"

• Color correction R PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:87:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:87:FF"

- Color correction R_YI GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:88:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:88:FF"

- Color correction R_YI PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:89:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:89:FF"

- Color correction YI GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8A:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8A:FF"

- Color correction YI PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8B:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8B:FF"

- Color correction YI_G GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8C:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8C:FF"

- Color correction YI_G PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8D:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8D:FF"

- Color correction G GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8E:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8E:FF"

- Color correction G PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8F:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8F:FF"

• Color correction G_Cy GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:90:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:90:FF"

• Color correction G_Cy PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:91:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:91:FF"

• Color correction Cy GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:92:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:92:FF"

• Color correction Cy PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:93:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:93:FF"

• Color correction Cy_B GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:94:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:94:FF"

• Color correction Cy_B PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:95:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:95:FF"

• Color correction B GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:96:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:96:FF"

• Color correction B PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:97:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:97:FF"

· Color correction B_Mg GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:80:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:80:FF"

· Color correction B_Mg PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:81:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:81:FF"

· Color correction Mg GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:82:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:82:FF"

· Color correction Mg PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:83:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:83:FF"

· Color correction Mg_R GAIN/SATURATION: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:84:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:84:FF"

· Color correction Mg_R PHASE: +127

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:85:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:85:FF"

3.2.7.4. Skin correction setting

These commands control the camera's skin correction and acquire the current setting values.

Table 3.2.7.4. Skin correction setting

Command name	Category	Command	Data	Setting	Remarks
Skin area SW control command	Control	OSG:B0:[Data]	0	Off	※Only enabled for the AK-UB300.
	Response	OSG:B0:[Data]	1	On	
Skin area SW query command	Request	QSG:B0	None		※Only enabled for the AK-UB300.
	Response	OSG:B0:[Data]	0 1	Off On	
Skin area table control command	Control	OSG:B1:[Data]	0	A	※Only enabled for the AK-UB300.
	Response	OSG:B1:[Data]	1	B	
Skin area table query command	Request	QSG:B1	None		※Only enabled for the AK-UB300.
	Response	OSG:B1:[Data]	0 1	A B	
Skin area HUE control command	Control	OSG:B2:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	※Only enabled for the AK-UB300.
	Response	OSG:B2:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	
Skin area HUE query command	Request	QSG:B2	None		※Only enabled for the AK-UB300.
	Response	OSG:B2:[Data]	01h ` 80h ` FFh	-127 ` 0 ` +127	
Skin area TONE control command	Control	OSG:B3:[Data]	01h ` 80h ` FEh	-127 ` 0 ` +126	※Only enabled for the AK-UB300.
	Response	OSG:B3:[Data]	01h ` 80h ` FEh	-127 ` 0 ` +126	
Skin area TONE query command	Request	QSG:B3	None		※Only enabled for the AK-UB300.
	Response	OSG:B3:[Data]	01h ` 80h ` FEh	-127 ` 0 ` +126	

Example of use)

• Skin area SW : Off

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSG:B0:0&res=1

[Response] AK-UB300 → PC

200 OK "OSG:B0:0"

3.2.8. Chroma level setting

These commands enable the chroma level of the camera to be set and the current settings to be acquired.

Table 3.2.8. Chroma level setting

Command name	Category	Command	Data value	Setting	Remarks	
Chroma level SW control command	Control	OSG:93:[Data]	0	Off	※Only enabled for the AK-UB300.	
	Response	OSG:93:[Data]	1	On		
Chroma level SW query command	Request	QSG:93	None		※Only enabled for the AK-UB300.	
	Response	OSG:93:[Data]	0 1	Off On		
Chroma level control command	Control	OCG:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/AW-UE70/AW-HE42			
			00	-3	■ In the case of the AW-HE50/AW-HE60 • Disabled at the FullAuto setting (ER3 is returned).	
			01	-2		
			02	-1		
			03	0		
			04	+1		
			05	+2		
	Response	OCG:[Data]	06	+3		
			In the case of the AW-HE130/AW-HR140			
			00h	OFF		
Chroma level query command	Control	OSD:B0:[Data]	1Dh	-99%		
			~	~		
			80h	0		
			~	~		
			A8h	40%		
			In the case of the AK-UB300			
			00h	-100%		
			1Dh	-99%		
			~	~		
			80h	0		
	Response	OSD:B0:[Data]	~	~		
			A8h	40%		
			In the case of the AW-UE150			
			00h	OFF		
			1Dh	-99%		
	Request	QCG	~	~		
			80h	0		
			~	~		
			E3h	99%		
			In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/AW-UE70/AW-HE42			
			None			
Response	OCG:[Data]	00	-3			
		01	-2			
		02	-1			
		03	0			
		04	+1			
		05	+2			
		06	+3			
	Request	QSD:B0	In the case of the AW-HE130/AK-UB300/AW-HR140			
			None			
	Response	OSD:B0:[Data]	In the case of the AW-HE130/AW-HR140			

Command name	Category	Command	Data value	Setting	Remarks
			00h 1Dh ` 80h ` A8h	OFF -99% ` 0 ` 40%	
In the case of the AK-UB300					
			00h 1Dh ` 80h ` A8h	-100% -99% ` 0 ` 40%	
In the case of the AW-UE150					
			00h 1Dh ~ 80h ~ E3h	OFF -99% ~ 0 ~ 99%	
Chroma Phase control command	Control	OSJ:0B:[Data]	61h ` 80h ` 9Fh	-31 ` 0 ` +31	※Only supported by the AW-UE150
	Response	OSJ:0B:[Data]			
Chroma Phase query command	Request	QSJ:0B	None		※Only supported by the AW-UE150
	Response	OSJ:0B:[Data]	61h ` 80h ` 9Fh	-31 ` 0 ` +31	

Example of use)

· Chroma level: 0

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OCG:03&res=1

[Response] AW-HE50 → PC

200 OK "OCG:03"

3.2.9. AWB/ABB setting

These commands select the AWB mode of the camera, execute AWB/ABB and enable the current AWB mode status to be acquired.

Table 3.2.9. AWB/ABB setting

Command name	Category	Command	Data value	Setting	Remarks	
AWB (AWC) execution control command	Control	OWS	None		AWB (AWC) is executed.	
	Notification	OWS ER3:OWS ER2:OWS		AWC/AWB OK AWC/AWB NG AWC/AWB NG (Busy)	<ul style="list-style-type: none"> There is no response which supports this control command. Notification is given by the separate update notification function. For details, refer to "4. Camera information update notification". 	
AWB execution underway status display On/Off control command	Control	OSA:88:[Data]	0 1	Off On	<ul style="list-style-type: none"> On or Off for screen display of AWB OK/NG. The status is fixed at Off when TALLY signals are present. <p>※The AK-UB300 is supported by V7.20 or a later version.</p>	
	Response	OSA:88:[Data]				
AWB execution underway status display On/Off query command	Request	QSA:88	None		※The AK-UB300 is supported by V7.20 or a later version..	
	Response	OSA:88:[Data]	0 1	Off On		
AWB (AWC) Mode control command	Control	OAW:[Data]	In the case of the AW-HE50/AW-HE60			
			0	ATW	• Disabled at the FullAuto setting (ER3 is returned).	
			1	AWB A		
			2	AWB B		
			3	ATW		
			In the case of the AW-HE120			
			0	ATW		
			1	AWB A		
			2	AWB B		
			3	ATW		
			4	PRESET 3200K		
			5	PRESET 5600K		
			In the case of the AW-HE130/AW-HR140/AW-HE40/ AW-UE70/AW-HE42/AW-UE150			
			0	ATW		
			1	AWB A		
			2	AWB B		
			3	ATW		
			4	PRESET 3200K		
			5	PRESET 5600K		
			9	VAR		
			Response OAW:[Data]			

Command name	Category	Command	Data value	Setting	Remarks
AWB (AWC) Mode query command	Request	QAW	None		
	Response	OAW:[Data]		In the case of the AW-HE50/AW-HE60 0 ATW 2 AWB A 3 AWB B	• The data value differs depending on the responses to the control command and query command.
				In the case of the AW-HE120 0 ATW 2 AWB A 3 AWB B 4 PRESET 3200K 5 PRESET 5600K	• The data value differs depending on the responses to the control command and query command.
				In the case of the AW-HE130/AW-HR140/AW-UE150 0 ATW 2 AWB A 3 AWB B 4 PRESET 3200K 5 PRESET 5600K 9 VAR	
				In the case of the AW-HE40/AW-UE70/AW-HE42 0 ATW 1 AWB A 2 AWB B 3 ATW 4 PRESET 3200K 5 PRESET 5600K 9 VAR	
ABB (ABC) execution control command	Control	OAS	None		ABB (ABC) is executed.
	Notification	OAS ER3:OAS ER2:OAS		ABB(ABC) OK ABB(ABC) NG ABB(ABC) NG (Busy)	※Only supported by the AW-HE120/AW-HE130/AW-HE40/AW-UE70/AW-HE42/AK-UB300/AW-HR140/AW-UE150 • There is no response which supports this control command. Notification is given by the separate update notification function. For details, refer to "4. Camera information update notification".
Color Temperature control command	Control	OSD:B1:[Data]		In the case of the AW-HE130/AW-HR140 000h 2000K 001h 2010K 002h 2020K 003h 2040K 004h 2050K 005h 2070K 006h 2080K 007h 2090K 008h 2110K 009h 2120K 00Ah 2140K 00Bh 2150K 00Ch 2170K 00Dh 2180K 00Eh 2200K 00Fh 2210K	

Command name	Category	Command	Data value	Setting	Remarks
			010h	2230K	
			011h	2240K	
			012h	2260K	
			013h	2280K	
			014h	2300K	
			015h	2310K	
			016h	2330K	
			017h	2340K	
			018h	2360K	
			019h	2380K	
			01Ah	2400K	
			01Bh	2420K	
			01Ch	2440K	
			01Dh	2460K	
			01Eh	2480K	
			01Fh	2500K	
			020h	2520K	
			021h	2540K	
			022h	2560K	
			023h	2600K	
			024h	2620K	
			025h	2640K	
			026h	2680K	
			027h	2700K	
			028h	2720K	
			029h	2740K	
			02Ah	2780K	
			02Bh	2800K	
			02Ch	2820K	
			02Dh	2850K	
			02Eh	2870K	
			02Fh	2920K	
			030h	2950K	
			031h	2970K	
			032h	3000K	
			033h	3020K	
			034h	3070K	
			035h	3100K	
			036h	3120K	
			037h	3150K	
			038h	3200K	
			039h	3250K	
			03Ah	3270K	
			03Bh	3330K	
			03Ch	3360K	
			03Dh	3420K	
			03Eh	3450K	
			03Fh	3510K	
			040h	3570K	
			041h	3600K	
			042h	3660K	
			043h	3720K	
			044h	3780K	
			045h	3840K	
			046h	3870K	

Command name	Category	Command	Data value	Setting	Remarks
			047h	3930K	
			048h	3990K	
			049h	4050K	
			04Ah	4110K	
			04Bh	4170K	
			04Ch	4240K	
			04Dh	4320K	
			04Eh	4360K	
			04Fh	4440K	
			050h	4520K	
			051h	4600K	
			052h	4680K	
			053h	4760K	
			054h	4840K	
			055h	4920K	
			056h	5000K	
			057h	5100K	
			058h	5200K	
			059h	5300K	
			05Ah	5400K	
			05Bh	5500K	
			05Ch	5600K	
			05Dh	5750K	
			05Eh	5850K	
			05Fh	6000K	
			060h	6150K	
			061h	6300K	
			062h	6450K	
			063h	6650K	
			064h	6800K	
			065h	7000K	
			066h	7150K	
			067h	7400K	
			068h	7600K	
			069h	7800K	
			06Ah	8100K	
			06Bh	8300K	
			06Ch	8600K	
			06Dh	8900K	
			06Eh	9200K	
			06Fh	9600K	
			070h	10000K	
			071h	10500K	
			072h	11000K	
			073h	11500K	
			074h	12000K	
			075h	12500K	
			076h	13000K	
			077h	14000K	
			078h	15000K	

Command name	Category	Command	Data value	Setting	Remarks
In the case of the AW-HE40/AW-UE70/AW-HE42					
	Response	OSD:B1:[Data]	000h	2400K	
			001h	2500K	
			002h	2600K	
			003h	2700K	
			004h	2800K	
			005h	2900K	
			006h	3000K	
			007h	3100K	
			008h	3200K	
			009h	3300K	
			00Ah	3400K	
			00Bh	3500K	
			00Ch	3600K	
			00Dh	3700K	
			00Eh	3800K	
			00Fh	3900K	
			010h	4000K	
			011h	4100K	
			012h	4200K	
			013h	4300K	
			014h	4400K	
			015h	4500K	
			016h	4600K	
			017h	4700K	
			018h	4800K	
			019h	4900K	
			01Ah	5000K	
			01Bh	5100K	
			01Ch	5200K	
			01Dh	5300K	
			01Eh	5400K	
			01Fh	5500K	
			020h	5600K	
			021h	5700K	
			022h	5800K	
			023h	5900K	
			024h	6000K	
			025h	6100K	
			026h	6200K	
			027h	6300K	
			028h	6400K	
			029h	6500K	
			02Ah	6600K	
			02Bh	6700K	
			02Ch	6800K	
			02Dh	6900K	
			02Eh	7000K	
			02Fh	7100K	
			030h	7200K	
			031h	7300K	
			032h	7400K	
			033h	7500K	
			034h	7600K	

Command name	Category	Command	Data value	Setting	Remarks	
			035h 036h 037h 038h 039h 03Ah 03Bh 03Ch 03Dh 03Eh 03Fh 040h 041h 042h 043h 044h 045h 046h 047h 048h 049h 04Ah 04Bh	7700K 7800K 7900K 8000K 8100K 8200K 8300K 8400K 8500K 8600K 8700K 8800K 8900K 9000K 9100K 9200K 9300K 9400K 9500K 9600K 9700K 9800K 9900K		
Color Temperature query command	Request	QSD:B1	None			
	Response	OSD:B1:[Data]	In the case of the AW-HE130/AW-HR140			
			000h ~ 078h	2000K ~ 15000K	• Refer to the Data/Setting values of the control command.	
Color temperature (increment) control command	Control	OSI:1E:[Data]	In the case of the AK-UB300			
	Response		1		• Increment from the current color temperature value.	
Color temperature (decrement) control command	Control	OSI:1F:[Data]	In the case of the AW-UE150			
	Response		1h ~ Ah		• Decrement from the current color temperature value.	
Color temperature control command	Control	OSI:20:[Data1][Data2]	[Data1]] 0 K		※ Only supported by the AW-UE150.	

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSI:20:[Data1][Data2]	00000h ~FFFFFh [Data2] 0h	~1048575 K Valid	<ul style="list-style-type: none"> The range is 2000K~15000K [Data2] is fixed at 0
Color temperature query command	Request	QSI:20	None		
	Response	OSI:20:[Data1]:[Data2]	In the case of the AK-UB300		<ul style="list-style-type: none"> Returns the current color temperature value in [Data1]. If the color temperature value is within the device specifications range, "0h:Valid" is returned in [Data2]. If the color temperature value is outside the device specifications range, "1h:Under" or "2h:Over" is returned in [Data2].
	In the case of the AW-UE150		[Data1] 00000h ~FFFFFh [Data2] 0h 1h 2h	0 K ~1048575 K Valid Under Over	<ul style="list-style-type: none"> The range is 2000K~15000K [Data2] is fixed at 0
	ATW Speed control command	Control	OSI:25:[Data]	0 1 2	Normal Slow Fast
ATW Speed query command	Response	OSI:25:[Data]			※ Only supported by the AW-HR140/AW-UE150
	Request	QSI:25	None		※ Only supported by the AW-HR140/AW-UE150
ATW Width control command	Control	OSI:26:[Data]	1 2 3 4 5	1 2 3 4 5	※ Only supported by the AW-HR140
	Response	OSI:26:[Data]			
ATW Width query command	Request	QSI:26	None		※ Only supported by the AW-HR140
	Response	OSI:26:[Data]	1 2 3 4 5	1 2 3 4 5	
AWB gain offset control command	Control	OSJ:0C:[Data]	0h	Off	※ Only supported by the AW-UE150
	Response	OSJ:0C:[Data]	1h	On	

Command name	Category	Command	Data value	Setting	Remarks
AWB gain offset query command	Request	QSJ:0C	None		※Only supported by the AW-UE150
	Response	OSJ:0C:[Data]	0h 1h	Off On	
ATW Target R control command	Control	OSJ:0D:[Data]	76h ` 80h ` 8Ah	-10 ` 0 ` +10	※Only supported by the AW-UE150
	Response	OSJ:0D:[Data]	76h ` 80h ` 8Ah	-10 ` 0 ` +10	
ATW Target R query command	Request	QSJ:0D	None		※Only supported by the AW-UE150
	Response	OSJ:0D:[Data]	76h ` 80h ` 8Ah	-10 ` 0 ` +10	
ATW Target B control command	Control	OSJ:0E:[Data]	76h ` 80h ` 8Ah	-10 ` 0 ` +10	※Only supported by the AW-UE150
	Response	OSJ:0E:[Data]	76h ` 80h ` 8Ah	-10 ` 0 ` +10	
ATW Target B query command	Request	QSJ:0E	None		※Only supported by the AW-UE150
	Response	OSJ:0E:[Data]	76h ` 80h ` 8Ah	-10 ` 0 ` +10	
AWB COLOR TEMPERATURE INC control command	Control	OSJ:48:[Data]	1h ` Ah	1 ` 10	※Only supported by the AW-UE150
	Response	OSJ:48:[Data]	1h ` Ah	1 ` 10	
AWB COLOR TEMPERATURE DEC control command	Control	OSJ:49:[Data]	1h ` Ah	1 ` 10	※Only supported by the AW-UE150
	Response	OSJ:49:[Data]	1h ` Ah	1 ` 10	
AWB COLOR TEMPERATURE query command	Control	OSJ:4A:[Data 1]:[Data2]	[Data 1] 007D 0h ` 03A9 8h [Data 2] 0h 1h 2h	2000 K ` 15000 K Valid Under Over	※Only supported by the AW-UE150 -[Data2] is fixed at 0
	Response	OSJ:4A:[Data 1]:[Data2]	[Data 1] 007D 0h ` 03A9 8h [Data 2]	2000 K ` 15000 K	
	Request	QSJ:4A	None		※Only supported by the AW-UE150
	Response	OSJ:4A:[Data 1]:[Data2]	[Data 1] 007D 0h ` 03A9 8h [Data 2]	2000 K ` 15000 K	

Command name	Category	Command	Data value	Setting	Remarks
			0h 1h 2h	Valid Under Over	
AWB R Gain control command	Control	OSJ:4B:[Data]	670h ` 800h ` 990h	-400 ` 0 ` 400	※Only supported by the AW-UE150
	Response	OSJ:4B:[Data]			
AWB R Gain query command	Request	QSJ:4B	None		
	Response	OSJ:4B:[Data]	670h ` 800h ` 990h	-400 ` 0 ` 400	
AWB B Gain control command	Control	OSJ:4C:[Data]	670h ` 800h ` 990h	-400 ` 0 ` 400	※Only supported by the AW-UE150
	Response	OSJ:4C:[Data]			
AWB B Gain query command	Request	QSJ:4C	None		
	Response	OSJ:4C:[Data]	670h ` 800h ` 990h	-400 ` 0 ` 400	
AWB G Axis control command	Control	OSJ:4D:[Data]	670h ` 800h ` 990h	-400 ` 0 ` 400	※Only supported by the AW-UE150
	Response	OSJ:4D:[Data]			
AWB G Axis query command	Request	QSJ:4D	None		
	Response	OSJ:4D:[Data]	670h ` 800h ` 990h	-400 ` 0 ` 400	

Example of use)

· AWB (AWC) execution

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OWS&res=0

[Response] AW-HE50 → PC

None

· AWB (AWC), ABB execution underway status display: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:88:1&res=1

[Response] AW-HE50 → PC

200 OK "OSA:88:1"

· AWB (AWC) mode: ATW

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OAW:0&res=1

[Response] AW-HE50 → PC

200 OK "OAW:0"

· ABB execution

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OAS&res=0

[Response] AW-HE120 → PC

200 OK "OAS"

3.2.10. Detail setting

These commands control the detail of the camera and enable the current settings to be acquired.

Table 3.2.10. Detail setting

Command name	Category	Command	Data value	Setting	Remarks
Detail control command	Control	ODT:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/AW-UE70/AW-HE42		
			0	Off	Disabled at the FullAuto setting (ER3 is returned).
			1	Low	
			2	High	
	Response	ODT:[Data]	In the case of the AW-HE130/AK-UB300/AW-HR140/AW-UE150		
			0	Off	
			1	On	
Detail query command	Request	QDT	None		
	Response	ODT:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/AW-UE70/AW-HE42		
			0	Off	Disabled at the FullAuto setting (ER3 is returned).
			1	Low	
			2	High	
			In the case of the AW-HE130/AK-UB300/AW-HR140/AW-UE150		
H.DTL LEVEL H control command	Control	OSD:0A:[Data]	02h ` 3Fh	2 ` 63	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The setting can never be lower than the H.DTL LEVEL L. ※Only supported by the AW-HE120.
	Response				
	Request	QSD:0A	None		
		Response	OSD:0A:[Data]	02h ` 3Fh	
H.DTL LEVEL L control command	Control	OSD:12:[Data]	01h ` 3Eh	1 ` 62	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The level is set to less than the H.DTL LEVEL H setting. ※Only supported by the AW-HE120.
	Response				
	Request	QSD:12	None		
		Response	OSD:12:[Data]	01h ` 3Eh	
H.DTL LEVEL control command	Control	OSA:31:[Data]	00h ` 3Fh	0 ` 63	※Only supported by the AK-UB300.
	Response				
	Request	QSA:31	None		
		Response	OSA:31:[Data]	00h ` 3Fh	

Command name	Category	Command	Data value	Setting	Remarks
V DTL LEVEL H control command	Control	OSD:0E:[Data]	02h ` 1Fh	2 ` 31	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The setting can never be lower than the V DTL LEVEL L. ※Only supported by the AW-HE120.
	Response	OSD:0E:[Data]			
V DTL LEVEL H query command	Request	QSD:0E	None		※Only supported by the AW-HE120.
	Response	OSD:0E:[Data]	02h ` 1Fh	2 ` 31	
V DTL LEVEL L control command	Control	OSD:16:[Data]	01h ` 1Eh	1 ` 30	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The level is set to less than the V DTL LEVEL H setting. ※Only supported by the AW-HE120.
	Response	OSD:16:[Data]			
V DTL LEVEL L query command	Request	QSD:16	None		※Only supported by the AW-HE120.
	Response	OSD:16:[Data]	01h ` 1Eh	1 ` 30	
V DTL LEVEL control command	Control	OSD:A1:[Data]	79h ` 80h ` 87h	-7 ` 0 ` 7	※Only supported by the AW-HE130/AW-HR140/AW-UE150.
	Response	OSD:A1:[Data]			
V DTL LEVEL query command	Request	QSD:A1	None		※Only supported by the AW-HE130/AW-HR140/AW-UE150.
	Response	OSD:A1:[Data]	79h ` 80h ` 87h	-7 ` 0 ` 7	
V.DTL LEVEL control command	Control	OSG:32:[Data]	00h ` 3Fh	0 ` 63	※Only supported by the AK-UB300.
	Response	OSG:32:[Data]			
V.DTL LEVEL query command	Request	QSG:32	None		※Only supported by the AK-UB300.
	Response	OSG:32:[Data]	00h ` 3Fh	0 ` 63	
DETAIL BAND control command	Control	OSD:1E:[Data]	01 ` 05	1 ` 5	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The detail boost frequency can be controlled and the settings can be acquired. If a high frequency is set, smaller subjects can be provided with the detail effect. ※Only supported by the AW-HE120.
	Response	OSD:1E:[Data]			
	Control	OSD:A2:[Data]	79h ` 80h `	-7 ` 0 `	

Command name	Category	Command	Data value	Setting	Remarks	
	Response	OSD:A2:[Data]	87h	7		
DETAIL BAND query command	Request	QSD:1E	None		※Only supported by the AW-HE120. ※Only supported by the AW-HE130/AW-HR140/AW-UE150.	
	Response	OSD:1E:[Data]	01 ` 05	1 ` 5		
	Request	QSD:A2	None			
	Response	OSD:A2:[Data]	79h ` 80h ` 87h	-7 ` 0 ` 7		
PEAK FREQUENCY control command	Control	OSG:30:[Data]	00h ` 04h ` 1Fh	0 ` 4 ` 31	※Only supported by the AK-UB300. • During 4K format: Only 00h(0)~04h(4) supported • During HD format: 00h(0)~1Fh(31) supported	
	Response	OSG:30:[Data]				
PEAK FREQUENCY query command	Request	QSG:30	None		※Only supported by the AK-UB300. • During 4K format: Only 00h(0)~04h(4) supported • During HD format: 00h(0)~1Fh(31) supported	
	Response	OSG:30:[Data]	00h ` 04h ` 1Fh	0 ` 4 ` 31		
V DETAIL FREQUENCY control command	Control	OSG:35:[Data]	00h ` 04h ` 1Fh	0 ` 4 ` 31	※Only supported by the AK-UB300. • During 4K format: Only 00h(0)~04h(4) supported • During HD format: 00h(0)~1Fh(31) supported	
	Response	OSG:35:[Data]				
V DETAIL FREQUENCY query command	Request	QSG:35	None		※Only supported by the AK-UB300. • During 4K format: Only 00h(0)~04h(4) supported • During HD format: 00h(0)~1Fh(31) supported	
	Response	OSG:35:[Data]	00h ` 04h ` 1Fh	0 ` 4 ` 31		
NOISE SUPPRESS/CRISP control command	Control	OSD:22:[Data]	In the case of the AW-HE120			
			00h ` 07h	0 ` 7	• Even when Off is selected as the detail setting, this command is received, and its setting is reflected. • The screen noise produced by the detail is reduced. • The higher the value, the lower the noise.	
			In the case of the AW-HE130/AW-HR140			
			00h ` 3Ch	0 ` 60		
			In the case of the AW-UB300			

Command name	Category	Command	Data value	Setting	Remarks	
			00h ` 3Fh	0 ` 63		
			Response	OSD:22:[Data]		
NOISE SUPPRESS/CRISP query command	Request	QSD:22	None			
	Response	OSD:22:[Data]	In the case of the AW-HE120			
			00h ` 07h	0 ` 7		
			In the case of the AW-HE130/AW-HR140			
			00h ` 3Ch	0 ` 60		
	In the case of the AW-UB300					
	00h ` 3Fh			0 ` 63		
FLESH TONE NOISE SUPPRESS control command	Control	OSD:4B:[Data]	00 01 02	Off Low High	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The amount of detail can be reduced for scenes having flesh tones in accordance with the settings. ※Only supported by the AW-HE120.	
	Response	OSD:4B:[Data]	80h ` 9Fh	0 ` 31	※Only supported by the AW-HE130/AW-HR140/AW-UE150.	
	Control	OSD:A3:[Data]				
	Response	OSD:A3:[Data]				
FLESH TONE NOISE SUPPRESS query command	Request	QSD:4B	None		※Only supported by the AW-HE120.	
	Response	OSD:4B:[Data]	00 01 02	Off Low High		
	Request	QSD:A3	None		※Only supported by the AW-HE130/AW-HR140/AW-UE150.	
	Response	OSD:A3:[Data]	80h ` 9Fh	0 ` 31		
TOTAL DTL LEVEL control command	Control	OSA:30:[Data]	In the case of the AW-HE60			
			81h ` 92h	1 ` 18	<ul style="list-style-type: none"> Even when Off is selected as the detail setting, this command is received, and its setting is reflected. In the case of the AW-HE60 The level is set to less than the TOTAL DTL LEVEL HIGH. ※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.	
			In the case of the AW-HE130/AW-HR140			
			61h ` 9Fh	0 ` 62		
			In the case of the AW-HE40/AW-UE70/AW-HE42			
			81h ` 91h	1 ` 17	<ul style="list-style-type: none"> The level is set to less than the TOTAL DTL LEVEL HIGH. 	

Command name	Category	Command	Data value	Setting	Remarks
			In the case of the AW-UB300/AW-UE150		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	
	Response	OSA:30:[Data]			
TOTAL DTL LEVEL query command	Request	QSA:30	None		※AW-HE60 CameraMain V3.05 or subsequent versions. ※Only supported by the AW-HE130/AW-HR140.
	Response	OSA:30:[Data]	In the case of the AW-HE60		
			81h ` 92h	1 ` 18	CameraMain V3.05 or subsequent versions.
			In the case of the AW-HE130/AW-HR140		
			61h ` 9Fh	0 ` 62	
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			81h ` 91h	1 ` 17	
			In the case of the AW-UB300/AW-UE150		
			61h ` 80h ` 9Fh	-31 ` 0 ` +31	
TOTAL DTL LEVEL HIGH control command	Control	OSA:B1:[Data]	In the case of the AW-HE60		
			82h ` 92h	2 ` 18	• Even when Off is selected as the detail setting, this command is received, and its setting is reflected. • A level below the TOTAL DTL LEVEL setting cannot be set. ※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			82h ` 92h	2 ` 18	• A level below the TOTAL DTL LEVEL setting cannot be set.
Response	OSA:B1:[Data]				
TOTAL DTL LEVEL HIGH query command	Request	QSA:B1	None		※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
	Response	OSA:B1:[Data]	In the case of the AW-HE60		
			82h ` 92h	2 ` 18	※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
			In the case of the AW-HE40/AW-UE70/AW-HE42		
			82h ` 92h	2 ` 18	
DETAIL (+) control command	Control	OSA:38:[Data]	61h ` 80h ` 9Fh	-31 ` 0 ` +31	※ Only supported by the AK-UB300/AW-UE150.
	Response	OSA:38:[Data]			
DETAIL (+)	Request	QSA:38	None		※ Only supported by the

Command name	Category	Command	Data value	Setting	Remarks
query command					AK-UB300/AW-UE150.
	Response	OSA:38:[Data]	61h ` 80h ` 9Fh	-31 ` 0 ` +31	
DETAIL (-) control command	Control	OSA:39:[Data]	61h ` 80h ` 9Fh	-31 ` 0 ` +31	※ Only supported by the AK-UB300/AW-UE150.
	Response	OSA:39:[Data]			
DETAIL (-) query command	Request	QSA:39	None		※ Only supported by the AK-UB300/AW-UE150.
	Response	OSA:39:[Data]	61h ` 80h ` 9Fh	-31 ` 0 ` +31	
DETAIL +CLIP control command	Control	OSG:40:[Data]	00h ` 3Fh	0 ` 63	※ Only supported by the AK-UB300.
	Response	OSG:40:[Data]			
DETAIL +CLIP query command	Request	QSG:40	None		※ Only supported by the AK-UB300.
	Response	OSG:40:[Data]	00h ` 3Fh	0 ` 63	
DETAIL -CLIP control command	Control	OSG:41:[Data]	00h ` 3Fh	0 ` 63	※ Only supported by the AK-UB300.
	Response	OSG:41:[Data]			
DETAIL -CLIP query command	Request	QSG:41	None		※ Only supported by the AK-UB300.
	Response	OSG:41:[Data]	00h ` 3Fh	0 ` 63	
DETAIL SOURCE control command	Control	OSA:3B:[Data]	0 1 2 3 4 5	(G+R)/2 (G+B)/2 (2G+B+R)/4 (3G+R)/4 R G	※ Only supported by the AK-UB300.
	Response	OSA:3B:[Data]			
DETAIL SOURCE query command	Request	QSA:3B	None		※ Only supported by the AK-UB300.
	Response	OSA:3B:[Data]	0 1 2 3 4 5	(G+R)/2 (G+B)/2 (2G+B+R)/4 (3G+R)/4 R G	
KNEE APERTURE LEVEL control command	Control	OSG:3F:[Data]	In the case of the AW- UB300		
			00h ` 27h	0 ` 39	
	Response	OSG:3F:[Data]	In the case of the AW-UE150		
			00h ~ 05h	0 ~ 5	
KNEE APERTURE LEVEL	Request	QSG:3F	None		
	Response	OSG:3F:[Data]	In the case of the AW- UB300		

Command name	Category	Command	Data value	Setting	Remarks
query command			00h ~ 27h	0 ~ 39	
In the case of the AW-UE150					
			00h ~ 05h	0 ~ 5	
LEVEL DEPENDENT SW control command	Control	OSG:3E:[Data]	0 1	Off On	※ Only supported by the AK-UB300.
	Response	OSG:3E:[Data]			
LEVEL DEPENDENT SW query command	Request	QSG:3E	None		※ Only supported by the AK-UB300.
	Response	OSG:3E:[Data]	0 1	Off On	
LEVEL DEPENDENT control command	Control	OSD:26:[Data]	00h ~ 0Fh	00 ~ 15	※ Only supported by the AK-UB300.
	Response	OSD:26:[Data]			
LEVEL DEPENDENT query command	Request	QSD:26	None		※ Only supported by the AK-UB300.
	Response	OSD:26:[Data]	00h ~ 0Fh	00 ~ 15	
Detail coring control command	Control	OSJ:12:[Data]	00h ~ 3Ch	0 ~ 60	※ Only supported by the AW-UE150
	Response	OSJ:12:[Data]			
Detail coring query command	Request	QSJ:12	None		※ Only supported by the AW-UE150
	Response	OSJ:12:[Data]	00h ~ 3Ch	0 ~ 60	
Level depend control command	Control	OSJ:13:[Data]	79h ~ 80h ~ 87h	-7 ~ 0 ~ 7	※ Only supported by the AW-UE150
	Response	OSJ:13:[Data]			
Level depend query command	Request	QSJ:13	None		※ Only supported by the AW-UE150
	Response	OSJ:13:[Data]	79h ~ 80h ~ 87h	-7 ~ 0 ~ 7	

Example of use)

· Detail: Low

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=ODT:1&res=1

[Response] AW-HE50 → PC

200 OK "ODT:1"

· H.DTL LEVEL: H 63

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:0A:3F&res=1

[Response] AW-HE120 → PC

200 OK "OSD:0A:3F"

· V DTL LEVEL: H 31

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:0E:1F&res=1

[Response] AW-HE120 → PC

200 OK "OSD:0E:1F"

· H.DTL LEVEL: L 62

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:12:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:12:3E"

· V DTL LEVEL: L 30

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:16:1E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:16:1E"

· DETAIL BAND: 1

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:1E:01&res=1

[Response] AW-HE120 → PC

200 OK "OSD:1E:01"

· NOISE SUPPRESS/CRISP: 7

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:22:07&res=1

[Response] AW-HE120 → PC

200 OK "OSD:22:07"

· FLESH TONE NOISE SUPPRESS: Low

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:4B:01&res=1

[Response] AW-HE120 → PC

200 OK "OSD:4B:01"

· TOTAL DTL LEVEL: 12

[Control] PC → AW-HE60

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:30:8C&res=1

[Response] AW-HE60 → PC

200 OK "OSA:30:8C"

· TOTAL DTL LEVEL HIGH: 18

[Control] PC → AW-HE60

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:B1:92&res=1

[Response] AW-HE60 → PC

200 OK "OSA:B1:92"

3.2.11. Down convert detail

These commands set details of video down-converted from 4K to HD.

Table 3.2.11. Down convert detail

Command name	Category	Command	Data value	Setting	Remarks
Down convert detail control command	Control	OSJ:14:[Data]	0 1	Off On	※Only supported by the AW-UE150
	Response	OSJ:14:[Data]			
Down convert detail query command	Request	QSJ:14	None		
	Response	OSJ:14:[Data]	0 1	Off On	
DC. Master Detail control command	Control	OSJ:15:[Data]	61h ~ 80h ~ 9Fh	-31 ~ 0 ~ +31	※Only supported by the AW-UE150
	Response	OSJ:15:[Data]			
DC. Master Detail query command	Request	QSJ:15	None		
	Response	OSJ:15:[Data]	61h ~ 80h ~ 9Fh	-31 ~ 0 ~ +31	
DC. Detail Coring control command	Control	OSJ:16:[Data]	00h ~ 3Ch	0 ~ 60	※Only supported by the AW-UE150
	Response	OSJ:16:[Data]			
DC. Detail Coring query command	Request	QSJ:16	None		
	Response	OSJ:16:[Data]	00h ~ 3Ch	0 ~ 60	
DC. V Detail Level control command	Control	OSJ:17:[Data]	79h ~ 80h ~ 87h	-7 ~ 0 ~ +7	※Only supported by the AW-UE150
	Response	OSJ:17:[Data]			
DC. V Detail Level query command	Request	QSJ:17	None		
	Response	OSJ:17:[Data]	79h ~ 80h ~ 87h	-7 ~ 0 ~ +7	
DC. Detail Frequency control command	Control	OSJ:18:[Data]	7Eh ~ 80h ~ 82h	-2 ~ 0 ~ +2	※Only supported by the AW-UE150
	Response	OSJ:18:[Data]			
DC. Detail Frequency query command	Request	QSJ:18	None		
	Response	OSJ:18:[Data]	7Eh ~ 80h ~ 82h	-2 ~ 0 ~ +2	
DC. Level Depend control command	Control	OSJ:19:[Data]	79h ~ 80h	-7 ~ 0	※Only supported by the AW-UE150
	Response	OSJ:19:[Data]			

Command name	Category	Command	Data value	Setting	Remarks
			~ 87h	~ +7	
DC. Level Depend query command	Request	QSJ:19	None		
	Response	OSJ:19:[Data]	79h ~ 80h ~ 87h	-7 ~ 0 ~ +7	
DC. Knee Ape Level control command	Control	OSJ:1A:[Data]	00h 01h 02h 03h 04h 05h	0 1 2 3 4 5	※Only supported by the AW-UE150
DC. Knee Ape Level query command	Request	QSJ:1A	None		
	Response	OSJ:1A:[Data]	00h 01h 02h 03h 04h 05h	0 1 2 3 4 5	

Example of use) Down convert detail: On

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:14:1&res=1

[Response] AW-UE150 → PC

200 OK "OSJ:14:1"

3.2.12. Flesh Tone Mode setting

These commands control the flesh tone mode of the camera and enable the current settings to be acquired.

Table 3.2.12. Flesh Tone Mode setting

Command name	Category	Command	Data value	Setting	Remarks
Flesh Tone Mode control command	Control	OSE:32:[Data]	0 1 3	Off Low High	<ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). <p>※Supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.</p>
	Response	OSE:32:[Data]			
Flesh Tone Mode query command	Request	QSE:32	None		<p>※Supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.</p>
	Response	OSE:32:[Data]	0 1 3	Off Low High	

Example of use) Flesh Tone Mode: High

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:32:3&res=1

[Response] AW-HE50 → PC

200 OK "OSE:32:3"

3.2.13. Digital noise reduction (DNR) setting

These commands control the digital noise reduction (DNR) of the camera and enable the current settings to be acquired.

Table 3.2.13. Digital noise reduction (DNR) setting

Command name	Category	Command	Data value	Setting	Remarks
Digital noise reduction (DNR) control command	Control	OSD:3A:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42/AW-UE150		
			00	Off	• Disabled at the FullAuto setting (ER3 is returned).
			01	Low	
			02	High	
	Response	OSD:3A:[Data]	In the case of the AK-UB300		
			00	Off	
			01	On	
Digital noise reduction (DNR) query command	Request	QSD:3A	None		
	Response	OSD:3A:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42/AW-UE150		
			00	Off	
			01	Low	
			02	High	
	Response	OSD:3A:[Data]	In the case of the AK-UB300		
			00	Off	
			01	On	
DNR LEVEL control command	Control	OSG:B5:[Data]	1 2 5	1 2 5	※Only supported by the AK-UB300.
	Response	OSG:B5:[Data]			
DNR LEVEL query command	Request	QSG:B5	None		
	Response	OSG:B5:[Data]	1 2 5	1 2 5	

Example of use) Digital noise reduction (DNR): High

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:3A:02&res=1

[Response] AW-HE50 → PC

200 OK "OSD:3A:02"

3.2.14. Pedestal setting

These commands control the pedestal of the camera and enable the current settings to be acquired.

Table 3.2.14. Pedestal setting

Command name	Category	Command	Data value	Setting	Remarks
Pedestal control command	Control	OTP:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			000h ` 096h ` 12Ch	-10 ` 0 ` +10	<ul style="list-style-type: none"> • Setting (menu display value) = (Data value - 0x96) / 15 • Disabled at the FullAuto setting (ER3 is returned).
			In the case of the AW-HE120/AW-HE130/AW-HR140		
			000h ` 096h ` 12Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> • Setting (menu display value) = (Data value - 0x96)
			In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
	Control	OTD:[Data]	00h ` 1Eh ` 3Ch	-10 ` 0 ` +10	<ul style="list-style-type: none"> • Setting (menu display value) = (Data value - 0x96) / 3 • Disabled at the FullAuto setting (ER3 is returned).
			In the case of the AW-HE120/AW-HE130/AW-HR140		
			00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> • Setting (menu display value) = (Data value - 0x1E) x 5
			In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			000h ` 096h ` 12Ch	-10 ` 0 ` +10	<ul style="list-style-type: none"> • Data value of response = (Setting x 15 + 0x96)
Pedestal query command	Request	QTP	None		
	Response	OTP:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			000h ` 096h ` 12Ch	-10 ` 0 ` +10	<ul style="list-style-type: none"> • Data value of response = (Setting x 15 + 0x96)
			In the case of the AW-HE120/AW-HE130/AW-HR140		
			000h ` 096h ` 12Ch	-150 ` 0 ` +150	<ul style="list-style-type: none"> • Data value of response = (Setting + 0x96)

Command name	Category	Command	Data value	Setting	Remarks
Pedestal query command	Request	QTD	None		
	Response	OTD:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			00h ` 1Eh ` 3Ch	-10 ` 0 ` +10	• Data value of response = (Setting x 3 + 0x1E)
			In the case of the AW-HE120/AW-HE130/AW-HR140		
			00h ` 1Eh ` 3Ch	-150 ` 0 ` +150	• Data value of response = (Setting / 5 + 0x1E)
Pedestal control command	Control	OSG:4A:[Data]	1Dh ` 80h ` E3h	-99 ` 0 ` +99	※Only enabled for the AK-UB300.
	Response	OSG:4A:[Data]			
Pedestal query command	Request	QSG:4A	None		※Only enabled for the AK-UB300.
	Response	OSG:4A:[Data]	1Dh ` 80h ` E3h	-99 ` 0 ` +99	

Example of use)

• Pedestal: -10

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OTP:000&res=1

[Response] AW-HE50 → PC

200 OK "OTP:000"

• Pedestal: +10

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OTD:3C&res=1

[Response] AW-HE50 → PC

200 OK "OTD:3C"

3.2.15. Gamma/DRS setting

These commands control the Gamma or DRS of the camera and enable the current settings to be acquired.

There are three setting items: DRS, gamma type and gamma level.

Table 3.2.15. Gamma/DRS setting

Command name	Category	Command	Data value	Setting	Remarks
DRS control command	Control	OSE:33:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42		
			0	Off	• Disabled at the FullAuto setting (ER3 is returned).
			1	Low	
			3	High	
DRS query command	Request	QSE:33	In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150		
			0	Off	• When any setting except Off is used for DRS and any setting except Normal is used for the gamma type or when digital zooming is valid, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when the above restrictions are released.
			1	Low	
			2	Mid	
Gamma type control command	Control	OSE:72:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/AW-UE70/AW-HE42		
			0	Off	■ In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42
			1	Normal	• Disabled at the FullAuto setting (ER3 is returned).
			2	Cinema	When the DRS is in any mode except Off, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when DRS is changed from the mode which is not Off to Off.
			In the case of the AW-HE130		
			0	HD	
			1	SD	
			2	FILMLIKE1	
			3	FILMLIKE2	
			4	FILMLIKE3	
			In the case of the AW-HR140		

Command name	Category	Command	Data value	Setting	Remarks
			0 2 3 4	HD FILMLIKE1 FILMLIKE2 FILMLIKE3	
	Response	OSE:72:[Data]		In the case of the AW-UE150	
			0 2 3 4 5 6 7	HD FILMLIKE1 FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC HLG	
Gamma type query command	Request	QSE:72	None		
	Response	OSE:72:[Data]		In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/ AW-UE70/AW-HE42	
			0 1 2	Off Normal Cinema	<ul style="list-style-type: none"> ■ In the case of the AW-HE50/ AW-HE60/AW-HE40/AW-UE70/AW- HE42 • Disabled at the FullAuto setting (ER3 is returned).
			In the case of the AW-HE130		
			0 1 2 3 4	HD SD FILMLIKE1 FILMLIKE2 FILMLIKE3	
			In the case of the AW-HR140		
			0 2 3 4	HD FILMLIKE1 FILMLIKE2 FILMLIKE3	
			In the case of the AW-UE150		
			0 2 3 4 5 6 7	HD FILMLIKE1 FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC HLG	
Gamma level control command	Control	OSD:50:[Data]	00 01 02	Low Mid High	<ul style="list-style-type: none"> ■ In the case of the AW-HE50/ AW-HE60/AW-HE40/AW-UE70/AW- HE42 <ul style="list-style-type: none"> • Disabled at the FullAuto setting (ER3 is returned). ■ In the case of the AW-HE50/ AW-HE60 <ul style="list-style-type: none"> • When the DRS is in any mode except Off, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when DRS is changed from the mode which is not Off to Off. • When the DRS is in any mode except Off and any setting except Normal is established for the

Command name	Category	Command	Data value	Setting	Remarks		
					gamma type, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when DRS is changed to Off and the gamma type is changed to Normal.		
					<p>■ In the case of the AW-HE120</p> <ul style="list-style-type: none"> When any setting except Normal is used for the gamma type, the setting is accepted but it is not reflected in the images. <p>The setting is reflected in the images when the above restrictions are released.</p> <p>※ Only supported by the AK-UB300.</p>		
Gamma level query command	Request	QSD:50	None	00 01 02	Low Mid High		
	Response	OSD:50:[Data]					
Gamma	Control	OSA:6A:[Data]	67h ~ 6Ch ~ 80h ~ 94h	0.30 ~ 0.35 ~ 0.55 ~ 0.75	※ Only supported by the AW-HE130/AW-HR140/AW-UE150.		
	Response	OSA:6A:[Data]			0.30 ~ 0.35 ~ 0.55 ~ 0.75		
	Request	QSA:6A	None				
	Response	OSA:6A:[Data]	67h ~ 6Ch ~ 80h ~ 94h	0.30 ~ 0.35 ~ 0.55 ~ 0.75	0.30 ~ 0.35 ~ 0.55 ~ 0.75		
	Control	OSD:C8:[Data]	0 1 3	Off Low High	※ In the case of the AW-HE40/AW-UE70/AW-HE42		
	Response	OSD:C8:[Data]					
Extended DRS query command	Request	QSD:C8	None	0 1 3	Off Low High		
	Response	OSD:C8:[Data]					
MASTER BLACK GAMMA control command	Control	OSA:07:[Data]	In the case of the AK-UB300 50h ~ 80h ~ B0h -48 ~ 0 ~ +48				
	In the case of the AW-UE150 78h						
	-8						

Command name	Category	Command	Data value	Setting	Remarks
			~ 80h ~ 88h	~ 0 ~ +8	
MASTER BLACK GAMMA query command	Request	QSA:07	None		
	Response	OSA:07:[Data]	In the case of the AK-UB300 50h ~ 80h ~ B0h	-48 ~ 0 ~ +48	
			In the case of the AW-UE150 78h ~ 80h ~ 88h	-8 ~ 0 ~ +8	
Black gamma range control command	Control	OSJ:1B:[Data]	1h 2h 3h	1 2 3	※Only supported by the AW-UE150
	Response	OSJ:1B:[Data]			
Black gamma range query command	Request	QSJ:1B	None		
	Response	OSJ:1B:[Data]	1h 2h 3h	1 2 3	
F-REC dynamic LVL control command	Control	OSA:10:[Data]	In the case of the AK-UB300 0 1 2 3	200% 300% 400% 500%	
			In the case of the AW-UE150 0 1 2 3 4	200% 300% 400% 500% 600%	
F-REC dynamic LVL query command	Request	QSA:10	None		
	Response	OSA:10:[Data]	In the case of the AK-UB300 0 1 2 3	200% 300% 400% 500%	
			In the case of the AW-UE150 0 1 2 3 4	200% 300% 400% 500% 600%	
F-REC black STR LVL control command	Control	OSA:0F:[Data]	00h ` 1Eh	0 ` 30	※Only supported by the AW-UE150
	Response	OSA:0F:[Data]			
F-REC black STR LVL query command	Request	QSA:0F	None		
	Response	OSA:0F:[Data]	00h ` 1Eh	0 ` 30	
V-REC Knee slope	Control	OSA:25:[Data]	In the case of the AK-UB300		

Command name	Category	Command	Data value	Setting	Remarks
control command			7Ch ` 80h ` 85h	150% ` 350% ` 600%	(1step=50%)
In the case of the AW-UE150					
	Response	OSA:25:[Data]	7Ch ` 80h ` 83h	150% ` 350% ` 500%	(1step=50%)
V-REC Knee slope query command	Request	QSA:25	None		
In the case of the AK-UB300					
	Response	OSA:25:[Data]	7Ch ` 80h ` 85h	150% ` 350% ` 600%	(1step=50%)
In the case of the AW-UE150					
			7Ch ` 80h ` 83h	150% ` 350% ` 500%	(1step=50%)
V-REC Knee point control command	Control	OSA:21:[Data]	In the case of the AK-UB300		
			62h ` 80h ` 9Eh	30% ` 60% ` 90%	
In the case of the AW-UE150					
	Response	OSA:21:[Data]	62h ` 80h ` 9Eh ` AFh	30% ` 60% ` 90% ` 107%	
V-REC Knee point query command	Request	QSA:21	None		
In the case of the AK-UB300					
	Response	OSA:21:[Data]	62h ` 80h ` 9Eh	30% ` 60% ` 90%	
In the case of the AW-UE150					
			62h ` 80h ` 9Eh ` AFh	30% ` 60% ` 90% ` 107%	
GAMMA MODE SELECT	Control	OSG:86:[Data]	0 1	HD FILMLIKE1	※Only supported by the AK-UB300

Command name	Category	Command	Data value	Setting	Remarks
control command	Response	OSG:86:[Data]	2 3 4 5	FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC	
GAMMA MODE SELECT query command	Request	QSG:86	None		
	Response	OSG:86:[Data]	0 1 2 3 4 5	HD FILMLIKE1 FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC	
MASTER GAMMA INC control command	Control	OSI:37:[Data]	1	INC	※Only supported by the AK-UB300
	Response	OSI:37:[Data]			
MASTER GAMMA DEC control command	Control	OSI:38:[Data]	1	DEC	※Only supported by the AK-UB300
	Response	OSI:38:[Data]			
MASTER GAMMA query command	Request	QSI:34	None		※Only supported by the AK-UB300
	Response	OSI:34:[Data]	05DCh ` 1194h ` 1D4Ch	0.1500 ` 0.4500 ` 0.7500	
R GAMMA control command	Control	OSI:35:[Data]	35h ` 80h ` CBh	-75 ` 0 ` +75	※Only supported by the AK-UB300
	Response	OSI:35:[Data]			
R GAMMA query command	Request	QSI:35	None		
	Response	OSI:35:[Data]	35h ` 80h ` CBh	-75 ` 0 ` +75	
B GAMMA control command	Control	OSI:36:[Data]	35h ` 80h ` CBh	-75 ` 0 ` +75	※Only supported by the AK-UB300
	Response	OSI:36:[Data]			
B GAMMA query command	Request	QSI:36	None		
	Response	OSI:36:[Data]	35h ` 80h ` CBh	-75 ` 0 ` +75	
BLACK GAMMA SW control command	Control	OSA:0B:[Data]	0 1	OFF ON	※Only supported by the AK-UB300
	Response	OSA:0B:[Data]			
BLACK GAMMA SW query command	Request	QSA:0B	None		
	Response	OSA:0B:[Data]	0 1	OFF ON	
R BLACK GAMMA	Control	OSA:08:[Data]	6Ch	-20	※Only supported by the AK-UB300

Command name	Category	Command	Data value	Setting	Remarks
control command		a]	\	\	
	Response	OSA:08:[Dat a]	80h \ 94h	0 \ +20	
R BLACK GAMMA query command	Request	QSA:08	None		
	Response	OSA:08:[Dat a]	6Ch \ 80h \ 94h	-20 \ 0 \ +20	
B BLACK GAMMA control command	Control	OSA:09:[Dat a]	6Ch \	-20 \	※Only supported by the AK-UB300
	Response	OSA:09:[Dat a]	80h \ 94h	0 \ +20	
B BLACK GAMMA query command	Request	QSA:09	None		
	Response	OSA:09:[Dat a]	6Ch \ 80h \ 94h	-20 \ 0 \ +20	
GAMMA SW control command	Control	OSA:0A:[Dat a]	0 1	OFF ON	※Only supported by the AK-UB300
	Response	OSA:0A:[Dat a]			
GAMMA SW query command	Request	QSA:0A	None		
	Response	OSA:0A:[Dat a]	0 1	OFF ON	
DRS SW control command	Control	OSA:0D:[Dat a]	0 1	OFF ON	※Only supported by the AK-UB300
	Response	OSA:0D:[Dat a]			
DRS SW query command	Request	QSA:0D	None		
	Response	OSA:0D:[Dat a]	0 1	OFF ON	

Example of use)

·DRS: Off

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:33:0&res=1

[Response] AW-HE50 → PC

200 OK "OSE:33:0"

·Gamma type: Normal

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:72:1&res=1

[Response] AW-HE50 → PC

200 OK "OSE:72:1"

·Gamma level: Mid

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:50:01&res=1

[Response] AW-HE50 → PC
200 OK "OSD:50:01"

3.2.16. Backlight compensation setting

These commands exercise On/Off control over the backlight compensation of the camera and enable the current settings to be acquired.

Table 3.2.16. Backlight compensation setting

Command name	Category	Command	Data value	Setting	Remarks
Backlight compensation control command	Control	OSE:73:[Data]	0 1	Off On	<ul style="list-style-type: none"> Disabled at the FullAuto setting (ER3 is returned). <p>■ In the case of the AW-HE50/AW-HE60</p> <ul style="list-style-type: none"> When On is set for auto iris, or Auto is set for Frame Mix or Gain, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off, or Frame Mix or Gain is changed to Manual. <p>※ Supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.</p>
	Response	OSE:73:[Data]			
Backlight compensation query command	Request	QSE:73	None		※ Supported only by the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42.
	Response	OSE:73:[Data]	0 1	Off On	

Example of use)

- Backlight compensation: Off

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:73:0&res=1

[Response] AW-HE50 → PC

200 OK "OSE:73:0"

3.2.17. Genlock setting

These commands exercise genlock control over the camera and enable the current settings to be acquired.

The setting items include horizontal sync phase, subcarrier sync phase (coarse) and subcarrier sync phase (fine).

Table 3.2.17. Genlock setting

Command name	Category	Command	Data value	Setting	Remarks
Horizontal sync phase control command	Control	OHP:[Data]	000h ` 338h ` 3FFh	-206 ` 0 ` +49	※This command has no effect with the AW-HE50H/AW-HE60H. • Setting (menu display value) = (Data value/ 4 — 206)
	Response	OHP:[Data]			
Horizontal sync phase query command	Request	QHP	None		※This command has no effect with the AW-HE50H/AW-HE60H.
	Response	OHP:[Data]	000h ` 338h ` 3FCh	-206 ` 0 ` +49	• Data value = (Setting + 206) x 4
Subcarrier sync phase (coarse) control command	Control	OSC:[Data]	0 1 2	90° 180° 270°	※Supported only by the AW-HE50S/AW-HE60S.
	Response	OSC:[Data]	3	0°	
Subcarrier sync phase (coarse) query command	Request	QSC	None		※Supported only by the AW-HE50S/AW-HE60S.
	Response	OSC:[Data]	0 1 2 3 5 6 7 8	90° 180° 270° 0° 45° 135° 225° 315°	• The data value differs depending on the responses to the control command and query command.
Subcarrier sync phase (fine) control command	Control	OSN:[Data]	000h ` 007h 008h ` 200h ` 3FBh 3FCh ` 3FFh	-127 ` -127 -126 ` 0 ` +126 +127 ` +127	※Supported only by the AW-HE50S/AW-HE60S.
	Response	OSN:[Data]			
Subcarrier sync phase (fine) query command	Request	QSN	None		※Supported only by the AW-HE50S/AW-HE60S.
	Response	OSN:[Data]	000h ` 007h 008h ` 200h ` 3FBh 3FCh ` 3FFh	-127 ` -127 -126 ` 0 ` +126 +127 ` +127	

Command name	Category	Command	Data value	Setting	Remarks
GEN-LOCK INPUT control command	Control	OSG:CA:[Data]	0	BNC	※Only supported by the AK-UB300.
	Response	OSG:CA:[Data]	1	DSUB	
GEN-LOCK INPUT query command	Request	QSG:CA	None		※Only supported by the AK-UB300.
	Response	OSG:CA:[Data]	0 1	BNC DSUB	
H PHASE-COARSE control command	Control	OSG:CB:[Data]	3h ` 8h ` Dh	-5 ` 0 ` +5	※Only supported by the AK-UB300.
	Response	OSG:CB:[Data]			
H PHASE-COARSE query command	Request	QSG:CB	None		※Only supported by the AK-UB300.
	Response	OSG:CB:[Data]	3h ` 8h ` Dh	-5 ` 0 ` +5	
H PHASE-FINE control command	Control	OSG:CC:[Data]	1Ch ` 80h ` E4h	-100 ` 0 ` +100	※Only supported by the AK-UB300.
	Response	OSG:CC:[Data]			
H PHASE-FINE query command	Request	QSG:CC	None		※Only supported by the AK-UB300.
	Response	OSG:CC:[Data]	1Ch ` 80h ` E4h	-100 ` 0 ` +100	

Example of use)

- Horizontal sync phase: +49

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OHP:3FF&res=1

[Response] AW-HE50 → PC

200 OK "OHP:3FF"

- Subcarrier sync phase (coarse): 90°

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSC:0&res=1

[Response] AW-HE50 → PC

200 OK "OSC:0"

- Subcarrier sync phase (fine): +127

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSN:3FF&res=1

[Response] AW-HE50 → PC

200 OK "OSN:3FF"

3.2.18. Output setting

These commands control the output settings of the camera and enable the current settings to be acquired.

The setting items include format, down-conversion mode and HDMI color components.

Table 3.2.18. Output setting

Command name	Category	Command	Data value	Setting	Remarks
Format control command	Control	OSA:87:[Data]		In the case of the AW-HE50	
			1h	720/59.94p(59.94Hz)	• Data values with different field frequencies are invalid (ER3 is returned).
			2h	720/50p(50Hz)	• The following formats are supported by Ver.2 or a later version. 1080/29.97PsF 1080/25PsF 1080/59.94p 1080/50p
			4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			7h	1080/29.97PsF(59.94Hz)	
			8h	1080/25PsF(50Hz)	
			Bh	480/59.94i(59.94Hz)	
			Dh	576/50i(50Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
				In the case of the AW-HE60	
			1h	720/59.94p(59.94Hz)	• Data values with different field frequencies are invalid (ER3 is returned).
			2h	720/50p(50Hz)	• The following formats are supported only by the HDMI models. 1080/59.94p 1080/50p
			4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			7h	1080/29.97PsF(59.94Hz)	
			8h	1080/25PsF(50Hz)	
			Bh	480/59.94i(59.94Hz)	
			Dh	576/50i(50Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
			12h	480/59.94p(59.94Hz)	
			13h	576/50p(50Hz)	
				In the case of the AW-HE120	
			1h	720/59.94p(59.94Hz)	• Data values with different field frequencies are invalid (ER3 is returned).
			2h	720/50p(50Hz)	
			4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			Bh	480/59.94i(59.94Hz)	
			Dh	576/50i(50Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
			12h	480/59.94p(59.94Hz)	
			13h	576/50p(50Hz)	
				In the case of the AW-HE130	
			1h	720/59.94p(59.94Hz)	• When 480/59.94p is selected, the HDMI output is set to 480/59.94p and SID output will be 480/59.94i.
			2h	720/50p(50Hz)	
			4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			7h	1080/29.97PsF(59.94Hz)	
			8h	1080/25PsF(50Hz)	
			Ah	1080/23.98PsF(59.94Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	• When 576/50p is selected, the HDMI

Command name	Category	Command	Data value	Setting	Remarks
			12h 13h 14h 15h 16h	480/59.94p(59.94Hz) 576/50p(50Hz) 1080/29.97p(59.94Hz) 1080/25p(50Hz) 1080/23.98p(59.94Hz)	output is set to 576/50p and SID output will be 576/50i.
In the case of the AW-HR140					
			1h 2h 4h 5h 7h 8h Ah 10h 11h 14h 15h 16h	720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 1080/23.98PsF(59.94Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 1080/29.97p(59.94Hz) 1080/25p(50Hz) 1080/23.98p(59.94Hz)	
In the case of the AW-HE40/AW-UE70					
			1h 4h 7h 10h 14h 17h 80h --- 2h 5h 8h 11h 15h 18h 80h	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97PsF 1080/59.94p ** 1080/29.97p 2160/29.97p *** Auto ** --- [50Hz] 720/50p 1080/50i 1080/25PsF 1080/50p ** 1080/25p 2160/25p *** Auto **	<ul style="list-style-type: none"> The formats marked with ** are supported only by the HDMI models. The formats marked with *** are supported only by the AW-UE70. Auto is supported only by control commands.
In the case of the AW-HE42					
			1h 4h 7h 10h 14h 80h --- 2h 5h 8h 11h 15h 80h	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97PsF 1080/59.94p ** 1080/29.97p Auto ** --- [50Hz] 720/50p 1080/50i 1080/25PsF 1080/50p ** 1080/25p Auto **	<ul style="list-style-type: none"> The formats marked with ** are supported only by the HDMI models. Auto is supported only by control commands.
In the case of the AK-UB300					
			00h 01h 02h	720/60p 720/59.94p(59.94Hz) 720/50p(50Hz)	

Command name	Category	Command	Data value	Setting	Remarks
			04h 05h 07h 08h 0Ah 10h 11h 16h 17h 18h 19h 1Ah 1Bh 1Ch 1Dh 1Eh 1Fh 20h 44h 45h 50h 51h	1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 1080/23.98PsF(59.94Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 1080/23.98p(59.94Hz) 2160/29.97p(59.94Hz) 2160/25p(50Hz) 2160/59.94p(59.94Hz) 2160/50p(50Hz) 2160/23.98p(59.94Hz) 2160/29.97psF 2160/25psF 2160/23.98psF 2160/60p 1080/60p 1080/59.94i CROP 1080/50i CROP 1080/59.94p CROP (59.94Hz) 1080/50p CROP (50Hz)	
In the case of the AW-UE150					
			1h 2h 4h 5h 7h 8h Ah 10h 11h 14h 15h 16h 17h 18h 19h 1Ah 1Bh 21h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97psF 1080/25psF 1080/23.98psF 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/59.94p 2160/50p 2160/23.98p 2160/24p 1080/24p 1080/23.98p	
Response OSA:87:[Data]					

Command name	Category	Command	Data value	Setting	Remarks
Format query command	Request	QSA:87	None		
Response OSA:87:[Data] In the case of the AW-HE50					

Command name	Category	Command	Data value	Setting	Remarks
			1h 2h 4h 5h 7h 8h Bh Dh 10h 11h	720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 480/59.94i(59.94Hz) 576/50i(50Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz)	
In the case of the AW-HE60					
			1h 2h 4h 5h 7h 8h Bh Dh 10h 11h 12h 13h	720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 480/59.94i(59.94Hz) 576/50i(50Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 480/59.94p(59.94Hz) 576/50p(50Hz)	
In the case of the AW-HE120					
			1h 2h 4h 5h Bh Dh 10h 11h 12h 13h	720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 480/59.94i(59.94Hz) 576/50i(50Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 480/59.94p(59.94Hz) 576/50p(50Hz)	
In the case of the AW-HE130					
			1h 2h 4h 5h 7h 8h Ah 10h 11h 12h 13h 14h 15h 16h	720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 1080/23.98PsF(59.94Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 480/59.94p(59.94Hz) 576/50p(50Hz) 1080/29.97p(59.94Hz) 1080/25p(50Hz) 1080/23.98p(59.94Hz)	<ul style="list-style-type: none"> When 480/59.94p is selected, the HDMI output is set to 480/59.94p and SID output will be 480/59.94i. When 576/50p is selected, the HDMI output is set to 576/50p and SID output will be 576/50i.
In the case of the AW-HR140					
			1h 2h 4h 5h 7h 8h Ah 10h 11h 14h	720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 1080/23.98PsF(59.94Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 1080/29.97p(59.94Hz)	

Command name	Category	Command	Data value	Setting	Remarks
			15h 16h	1080/25p(50Hz) 1080/23.98p(59.94Hz)	
In the case of the AW-HE40/AW-UE70					
			1h 4h 7h 10h 14h 17h --- 2h 5h 8h 11h 15h 18h	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97PsF 1080/59.94p ** 1080/29.97p 2160/29.97p *** --- [50Hz] 720/50p 1080/50i 1080/25PsF 1080/50p ** 1080/25p 2160/25p ***	<ul style="list-style-type: none"> The formats marked with ** are supported only by the HDMI models. The formats marked with *** are supported only by the AW-UE70.
In the case of the AW-HE42					
			1h 4h 7h 10h 14h --- 2h 5h 8h 11h 15h	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97PsF 1080/59.94p ** 1080/29.97p --- [50Hz] 720/50p 1080/50i 1080/25PsF 1080/50p ** 1080/25p	<ul style="list-style-type: none"> The formats marked with ** are supported only by the HDMI models
In the case of the AK-UB300					
			00h 01h 02h 04h 05h 07h 08h 0Ah 10h 11h 16h 17h 18h 19h 1Ah 1Bh 1Ch 1Dh 1Eh 1Fh 20h 44h 45h 50h	720/60p 720/59.94p(59.94Hz) 720/50p(50Hz) 1080/59.94i(59.94Hz) 1080/50i(50Hz) 1080/29.97PsF(59.94Hz) 1080/25PsF(50Hz) 1080/23.98PsF(59.94Hz) 1080/59.94p(59.94Hz) 1080/50p(50Hz) 1080/23.98p(59.94Hz) 2160/29.97p(59.94Hz) 2160/25p(50Hz) 2160/59.94p(59.94Hz) 2160/50p(50Hz) 2160/23.98p(59.94Hz) 2160/29.97psF 2160/25psF 2160/23.98psF 2160/60p 1080/60p 1080/59.94i CROP 1080/50i CROP 1080/59.94p CROP(59.94Hz)	

Command name	Category	Command	Data value	Setting	Remarks
			51h	1080/50p CROP(50Hz)	
In the case of the AW-UE150					
			01h	720/59.94p	
			02h	720/50p	
			04h	1080/59.94i	
			05h	1080/50i	
			07h	1080/29.97psF	
			08h	1080/25psF	
			0Ah	1080/23.98psF	
			10h	1080/59.94p	
			11h	1080/50p	
			14h	1080/29.97p	
			15h	1080/25p	
			16h	1080/23.98p (over 59.94i/p)	
			17h	2160/29.97p	
			18h	2160/25p	
			19h	2160/59.94p	
			1Ah	2160/50p	
			1Bh	2160/23.98p	
			21h	2160/24p	
			22h	1080/24p	
			23h	1080/23.98p	
Format (SDI) Control command	Control	OSD:B9:[Data]	In the case of the AW-UE70/AW-HE42		
			1h	[59.94Hz] 720/59.94p	
Format (SDI) Query command	Request	QSD:B9	4h	1080/59.94i	
			7h	1080/29.97psF	
	Response	OSD:B9:[Data]	10h	1080/59.94p	
			14h	1080/29.97p	
			2h	[50Hz] 720/50p	
			5h	1080/50i	
			8h	1080/25psF	
			11h	1080/50p	
			15h	1080/25p	
				In the case of the AW-UE70/AW-HE42	
				None	
	Response	OSD:B9:[Data]			
			1h	[59.94Hz] 720/59.94p	
			4h	1080/59.94i	
			7h	1080/29.97psF	
			10h	1080/59.94p	
			14h	1080/29.97p	
			2h	[50Hz] 720/50p	
			5h	1080/50i	
			8h	1080/25psF	
			11h	1080/50p	
			15h	1080/25p	

Command name	Category	Command	Data value	Setting	Remarks
Down-conversion mode control command	Control	OSE:20:[Data]	0	SideCut Squeeze LetterBOX	※ Not supported by the AK-UB300/AW-HR140 /AW-UE150.
			1		
Down-conversion mode query command	Request	QSE:20	None		※ Not supported by the AK-UB300/AW-HR140 /AW-UE150.
		OSE:20:[Data]	0		
HDMI color component control command	Control	OSE:68:[Data]	0	SideCut Squeeze LetterBOX	※ Not supported by the AK-UB300/AW-HR140 /AW-UE150.
			1		
HDMI color component query command	Request	QSE:68	None		
		OSE:68:[Data]	0		
Analog component output control command	Control	OSD:65:[Data]	00	YPbPr RGB	※ Only supported by the AW-HE120.
			01		
Analog component output query command	Request	QSD:65	None	YPbPr RGB	※ Only supported by the AW-HE120.
		OSD:65:[Data]	00		
3G SDI Out control command	Control	OSI:29:[Data]	0	Level A Level B	※ Only supported by the AW-HR140/AW-UE150
			1		
3G SDI Out query command	Request	QSI:29	None	Level A Level B	※ Only supported by the AW-HR140/AW-UE150
		OSI:29:[Data]	0		
DC Out control command	Control	OSI:2B:[Data]	0	Off On	※ Only supported by the AW-HR140
			1		
DC Out query command	Request	QSI:2B	None	Off On	※ Only supported by the AW-HR140
		OSI:2B:[Data]	0		
12G SDI/Fiber Out Output Format control command	Control	OSJ:1E:[Data]	In the case of the AW-UE150		
			01h	720/59.94p	
			02h	720/50p	
			04h	1080/59.94i	
			05h	1080/50i	
			07h	1080/29.97PsF	
			08h	1080/25PsF	
			0Ah	1080/23.98PsF	
			10h	1080/59.94p	
			11h	1080/50p	
			14h	1080/29.97p	
			15h	1080/25p	
			16h	1080/23.98p(over 59.94i/p)	

Command name	Category	Command	Data value	Setting	Remarks
			17h 18h 19h 1Ah 1Bh 21h 22h 23h	2160/29.97p 2160/25p 2160/59.94p 2160/50p 2160/23.98p 2160/24p 1080/24p 1080/23.98p	
12G SDI/Fiber Out Output Format query command	Request	QSJ:1E	None		
	Response	OSJ:1E:[Data]		In the case of the AW-UE150	
			01h 02h 04h 05h 07h 08h 0Ah 10h 11h 14h 15h 16h 17h 18h 19h 1Ah 1Bh 21h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/23.98p(over 59.94i/p) 2160/29.97p 2160/25p 2160/59.94p 2160/50p 2160/23.98p 2160/24p 1080/24p 1080/23.98p	
12G SDI/Fiber Out HDR Output select control command	Control	OSJ:1F:[Data]	0h	SDR	※Only supported by the AW-UE150
	Response	OSJ:1F:[Data]	1h 2h	HDR(2020) HDR(709)	
12G SDI/Fiber Out HDR Output select query command	Request	QSJ:1F	None		
	Response	OSJ:1F:[Data]	0h 1h 2h	SDR HDR(2020) HDR(709)	
12G SDI/Fiber Out / 3G SDI Out control command	Control	OSJ:20:[Data]	0h	Level A	※Only supported by the AW-UE150
	Response	OSJ:20:[Data]	1h	Level B	
12G SDI/Fiber Out / 3G SDI Out query command	Request	QSJ:20	None		
	Response	OSJ:20:[Data]	0h 1h	Level A Level B	
3G SDI Out Output Format control command	Control	OSJ:21:[Data]		In the case of the AW-UE150	
	Response	OSJ:21:[Data]	01h 02h 04h 05h 07h 08h 0Ah 10h 11h 14h 15h 16h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/23.98p(over 59.94i/p) 1080/24p 1080/23.98p	

Command name	Category	Command	Data value	Setting	Remarks	
3G SDI Out Output Format query command	Request	QSJ:21	None			
	Response	OSJ:21:[Data]	01h 02h 04h 05h 07h 08h 0Ah 10h 11h 14h 15h 16h 22h 23h	In the case of the AW-UE150 720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/23.98p (over 59.94i/p) 1080/24p 1080/23.98p		
3G SDI Out HDR Output Select control command	Control	OSJ:22:[Data]	0h	SDR	※Only supported by the AW-UE150	
	Response	OSJ:22:[Data]	1h 2h	HDR(2020) HDR(709)		
3G SDI Out HDR Output Select query command	Request	QSJ:22	None			
	Response	OSJ:22:[Data]	0h 1h 2h	SDR HDR(2020) HDR(709)		
MONI Out Output Format control command	Control	OSJ:23:[Data]	In the case of the AW-UE150			
	Response	OSJ:23:[Data]	01h 02h 04h 05h 07h 08h 0Ah 14h 15h 16h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/29.97p 1080/25p 1080/23.98p (over 59.94i/p) 1080/24p 1080/23.98p		
MONI Out Output Format query command	Request	QSJ:23	None			
	Response	OSJ:23:[Data]	In the case of the AW-UE150			
			01h 02h 04h 05h 07h 08h 0Ah 14h 15h 16h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/29.97p 1080/25p 1080/23.98p (over 59.94i/p) 1080/24p 1080/23.98p		
MONI Out HDR Output Select control command	Control	OSJ:24:[Data]	0h	SDR	※Only supported by the AW-UE150	
	Response	OSJ:24:[Data]	1h 2h	HDR(2020) HDR(709)		
MONI Out HDR Output Select query command	Request	QSJ:24	None			
	Response	OSJ:24:[Data]	0h 1h 2h	SDR HDR(2020) HDR(709)		

Command name	Category	Command	Data value	Setting	Remarks
HDMI Out Output Format control command	Control	OSJ:25:[Data]		In the case of the AW-UE150	
	Response	OSJ:25:[Data]	01h 02h 04h 05h 10h 11h 14h 15h 16h 17h 18h 19h 1Ah 1Bh 21h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/23.98p(over 59.94i/p) 2160/29.97p 2160/25p 2160/59.94p 2160/50p 2160/23.98p 2160/24p 1080/24p 1080/23.98p	
HDMI Out Output Format query command	Request	QSJ:25	None		
	Response	OSJ:25:[Data]		In the case of the AW-UE150	
			01h 02h 04h 05h 10h 11h 14h 15h 16h 17h 18h 19h 1Ah 1Bh 21h 22h 23h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/23.98p(over 59.94i/p) 2160/29.97p 2160/25p 2160/59.94p 2160/50p 2160/23.98p 2160/24p 1080/24p 1080/23.98p	
HDMI Out HDR Output Select control command	Control	OSJ:26:[Data]	0h 1h 2h	SDR HDR(2020) HDR(709)	※Only supported by the AW-UE150
HDMI Out HDR Output Select query command	Request	QSJ:26	None		
	Response	OSJ:26:[Data]	0h 1h 2h	SDR HDR(2020) HDR(709)	

Example of use)

•Format: 720/59.94p

[Control] PC → AW-HE50http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:87:01&res=1**[Response]** AW-HE50 → PC

200 OK "OSA:87:01"

•Down-conversion mode: Squeeze

[Control] PC → AW-HE50http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:20:1&res=1**[Response]** AW-HE50 → PC

200 OK "OSE:20:1"

- HDMI color components: RGB-NOR

[Control] PC → AW-HE50H

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:68:0&res=1

[Response] AW-HE50H → PC

200 OK "OSE:68:0"

- Analog component output: RGB

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:65:01&res=1

[Response] AW-HE120 → PC

200 OK "OSD:65:01"

3.2.19. Preset

3.2.19.1. Preset playback setting

These commands control the playback when the presets of the camera are to be played back and enable the current settings to be acquired.

Table 3.2.19.1. Preset playback range setting

Command name	Category	Command	Data value	Setting	Remarks
Preset playback range control command	Control	OSE:71:[Data]	0 1 2	Mode A Mode B Mode C	※ Not supported by the AK-UB300.
	Response	OSE:71:[Data]			
Preset playback range query command	Request	QSE:71	None		※ Not supported by the AK-UB300.
	Response	OSE:71:[Data]	0 1 2	Mode A Mode B Mode C	
Preset zoom mode control command	Control	OSE:7D:[Data]	0 1	Mode A Mode B	※ Only supported by the AW-HR140/AW-UE150. Mode A : Perform the zoom operation in line with the pan/tilt operation. Mode B : Perform the zoom operation quicker than pan/tilt operation.
	Response	OSE:7D:[Data]			
Preset zoom mode query command	Request	QSE:7D	None		※ Only supported by the AW-HR140/AW-UE150.
	Response	OSE:7D:[Data]	0 1	Mode A Mode B	
Preset Speed Unit control command	Control	OSJ:29:[Data]	0	Speed Table	※ Only supported by the AW-UE150
	Response	OSJ:29:[Data]	1	Time	
Preset Speed Unit query command	Request	QSJ:29	None		
	Response	OSJ:29:[Data]	0 1	Speed Table Time	
Preset Crop control command	Control	OSJ:2A:[Data]	0	Off	※ Only supported by the AW-UE150
	Response	OSJ:2A:[Data]	1	On	
Preset Crop query command	Request	QSJ:2A	None		
	Response	OSJ:2A:[Data]	0 1	Off On	
Preset Iris control command	Control	OSJ:5B:[Data]	0	Off	※ Only supported by the AW-UE150
	Response	OSJ:5B:[Data]	1	On	
Preset Iris query command	Request	QSJ:5B	None		
	Response	OSJ:5B:[Data]	0 1	Off On	

Example of use) Preset playback range: Mode A

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:71:0&res=1

[Response] AW-HE50 → PC

200 OK "OSE:71:0"

3.2.19.2. Preset name and thumbnail setting

These commands control the playback when the presets of the camera are to be played back and enable the current settings to be acquired.

Table 3.2.19.2. Preset playback range setting

Command name	Category	Command	Data value	Setting	Remarks
Preset name set control command	Control	OSJ:35:[Data1]:[Data2]	[Data1] 00 ~ 99 [Data2] xxxxxxxxxx xxxx	[Data1] Preset001 - Preset100 [Data2] Preset Name (15 Charactors)	※Only supported by the AW-UE150
	Response	OSJ:35:[Data1]:[Data2]			
Preset name set query command	Request	QSJ:35:[Data1]	None		※Only supported by the AW-UE150
	Response	OSJ:35:[Data1]:[Data2]	[Data1] 00 ~ 99 [Data2] XXXXXXXXXX xxxx	[Data1] Preset001 - Preset100 [Data2] Preset Name (15 Charactors)	
Preset name delete control command	Control	OSJ:36:[Data1]	00 ~ 99	Preset001 - Preset100	※Only supported by the AW-UE150
	Response	OSJ:36:[Data1]			
Preset name delete (all) control command	Control	OSJ:37	None		※Only supported by the AW-UE150
	Response	OSJ:37			
Preset thumbnail set control command	Control	OSJ:39:[Data1]	00 ~ 99	Preset001 - Preset100	※Only supported by the AW-UE150
	Response	OSJ:39:[Data1]			
Preset thumbnail delete control command	Control	OSJ:3A:[Data1]	00 ~ 99	Preset001 - Preset100	※Only supported by the AW-UE150
	Response	OSJ:3A:[Data1]			
Preset thumbnail delete (all) control command	Control	OSJ:3B	None		※Only supported by the AW-UE150
	Response	OSJ:3B			
Preset name /thumbnail counter query command	Request	QSJ:3C:[Data1]	[Data1] 00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 0Ah 0Bh [Data2] 00000000h -FFFFFFF h	[Data1] Preset 001-009 Preset 010-018 Preset 019-027 Preset 028-036 Preset 037-045 Preset 046-054 Preset 055-063 Preset 064-072 Preset 073-081 Preset	※Only supported by the AW-UE150 Increment the corresponding bit by 1 when the preset name or thumbnail is updated
	Response	OSJ:3C:[Data1]:[Data2]			

Command name	Category	Command	Data value	Setting	Remarks
				082-090 Preset 091-099 Preset 100 [Data2] 00000000h - FFFFFFF h	
Preset Thumbnail control command	Control	OSJ:2B:[Data]	0	Off	※Only supported by the AW-UE150
	Response	OSJ:2B:[Data]	1	On	
Preset Thumbnail query command	Request	QSJ:2B	None		
	Response	OSJ:2B:[Data]	0 1	Off On	
Preset Name control command	Control	OSJ:2C:[Data]	0	Reset	※Only supported by the AW-UE150
	Response	OSJ:2C:[Data]	1	Hold	
Preset Name query command	Request	QSJ:2C	None		
	Response	OSJ:2C:[Data]	0 1	Reset Hold	

Example of use) Set preset name: ABCDE

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:35:00:ABCDE &res=1

[Response] AW-UE150 → PC

200 OK "OSJ:35:00:ABCDE"

※[Data2] is fixed to 15 characters. If the preset name to be set is less than 15 characters please fill in the space

Example of use) Delete Preset name: Preset 01

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:3A:00&res=1

[Response] AW-UE150 → PC

200 OK "OSJ:3A:00"

3.2.20. Digital zoom settings

These commands control the digital zoom of the camera, and they enable the digital zoom settings to be acquired.

Table 3.2.20. Digital zoom settings

Command name	Category	Command	Data value	Setting	Remarks
Digital zoom On/Off control command	Control	OSE:70:[Data]	0 1	Disable Enable	※ Not supported by the AK-UB300.
	Response	OSE:70:[Data]			
Digital zoom On/Off query command	Request	QSE:70	None		※ Not supported by the AK-UB300.
	Response	OSE:70:[Data]	0 1	Disable Enable	
Digital zoom maximum magnification control command	Control	OSE:7A:[Data]	02 ` 10 ` 16	x2 ` x10 ` x16	<ul style="list-style-type: none"> This command enables the maximum digital zoom magnification to be set. <p>* Only supported by the AW-HE120/AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150.</p>
	Response	OSE:7A:[Data]			
Digital zoom maximum magnification query command	Request	QSE:7A	None		<ul style="list-style-type: none"> *Max x12 magnification for AW-UE70/AW-HE42 *Max x10 magnification for AW-HE120/AW-HE130/AW-HR140/AW-UE150.
	Response	OSE:7A:[Data]	02 ` 10 ` 16	x2 ` x10 ` x16	
Digital zoom magnification control command	Control	OSE:76:[Data]	0100 ` 1000 ` 1600	x1.00 ` x10.00 ` x16.00	<ul style="list-style-type: none"> This command enables the digital zoom magnification to be set. <p>※ Max x12 magnification for AW-UE70/AW-HE42</p>
	Response	OSE:76:[Data]			
Digital zoom magnification query command	Request	QSE:76	None		<p>※ Max x10 magnification for AW-UE150</p> <p>※ Not supported by the AK-UB300.</p>
	Response	OSE:76:[Data]	0100 ` 1000 ` 1600	x1.00 ` x10.00 ` x16.00	
Digital Extender control command	Control	ODE:[Data]	0 1	Off On	※ Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140/AW-UE150/AK-UB300.
	Response	ODE:[Data]			
Digital Extender query command	Request	QDE	None		※ Only supported by the AW-UE150
	Response	ODE:[Data]	0 1	Off On	
Digital Extender control command	Control	OSJ:4E:[Data]	0 1 2	OFF x1.4 x2.0	<p>※ Only supported by the AW-UE150</p> <p>• OSJ:4E is used instead of ODE in V2.00 or later of AW-UE150. ODE:On work as "x1.4".</p>
	Response	OSJ:4E:[Data]			
Digital Extender query command	Request	QSJ:4E	None		※ Only supported by the AW-UE150
	Response	OSJ:4E:[Data]	0 1 2	OFF x1.4 x2.0	
Digital Extender magnification control command	Control	OSD:B8:[Data]	0 1 2	x1.4 x2.0 x4.0	*Only AW-UE70/AW-HE42 supported

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSD:B8:[Data]	3 4	x6.0 x8.0	
Digital Extender magnification query command	Request	QSD:B8	None		※Only supported by the AW-HE40/AW-UE70/AW-HE42/AW-UE150.
	Response	OSD:B8:[Data]	0 1 2 3 4	x1.4 x2.0 x4.0 x6.0 x8.0	
iZoom control command	Control	OSD:B3:[Data]	0	Off	※ Only supported by the AW-HE130 (V2.00 or a later)/AW-HR140/AW-UE150.
	Response	OSD:B3:[Data]	1	On	
iZoom query command	Request	QSD:B3	None		※ Only supported by the AW-HE130 (V2.00 or a later)/AW-HR140/AW-UE150.
	Response	OSD:B3:[Data]	0 1	Off On	
Preset Digital Extender Enable control command	Control	OSE:7C:[Data]	0	Off	※ Only supported by the AW-HE130 (V2.00 or a later)/AW-HR140/AW-UE150.
	Response	OSE:7C:[Data]	1	On	
Preset Digital Extender Enable query command	Request	QSE:7C	None		※ Only supported by the AW-UE150
	Response	OSE:7C:[Data]	0 1	Off On	
Zoom magnification query command	Request	QSJ:3D	None		※ Only supported by the AW-UE150
	Response	OSJ:3D:[Data]	000h ~ 3E7h	0 ~ 999	

Example of use)

- Digital zoom: Enable

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:70:1&res=1

[Response] AW-HE50 → PC

200 OK "OSE:70:1"

- Maximum digital zoom magnification: 10×

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:7A:10&res=1

[Response] AW-HE120 → PC

200 OK "OSE:7A:10"

- Digital zoom magnification: 1×

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:76:0100&res=1

[Response] AW-HE120 → PC

200 OK "OSE:76:0100"

3.2.21. Camera information acquisition

These commands enable the current camera information of the camera to be acquired.

Table 3.2.21. Camera information acquisition

Command name	Category	Command	Data value	Setting	Remarks
Model number query command	Request	QID	None		
	Response	OID:[Data]	In the case of the AW-HE50 AW-HE50	Model number of camera	
			In the case of the AW-HE60 AW-HE60	Model number of camera	
			In the case of the AW-HE120 AW-HE120	Model number of camera	
			In the case of the AW-HE130 AW-HE130	Model number of camera	
			In the case of the AW-HE40 AW-HE40	Model number of camera	
			In the case of the AW-UE70 AW-UE70	Model number of camera	
			In the case of the AW-HE42 AW-HE42	Model number of camera	
			In the case of the AK-UB300 AK-UB300	Model number of camera	
			In the case of the AW-HR140 AW-HR140	Model number of camera	
			In the case of the AW-UE150 AW-UE150	Model number of camera	
Camera microcontroller software version query command	Request	QSV	None		※ Not supported by the AK-UB300.
	Response	OSV:[Data]			Camera Microcontroller software version Example: V01.28
Camera Title Control command	Control	OSJ:5C:[Data]	xxxxxxxx	Camera Title (Fixed 40 Charactors : ASCII CODE)	※ Only supported by the AW-UE150.
	Response	OSJ:5C:[Data]			※Support only 0123456789
Camera Title query command	Request	QSJ:5C	None		ABCDEFIGHJKLMNOPQRST UVWXYZ abcdefghijklmnopqrstuvwxyz !#\$%`(*+,-./;=>?@[]^_`{}?\`
	Response	OSJ:5C:[Data]	xxxxxxxx	Camera Title (Fixed 40 Charactors : ASCII CODE)	

Example of use)

· Model number acquisition

[Control] PC → AW-HE50/AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=QID&res=1

[Response] AW-HE50/AW-HE120 → PC

200 OK "OID:AW-HE50"

※In the case of the AW-HE50

200 OK "OID:AW-HE120"

※In the case of the AW-HE120

· Camera microcontroller software version acquisition

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=QSV&res=1

[Response] AW-HE50 → PC

200 OK "OSV:V01.00"

3.2.22. OSD menu

These commands exercise control over the OSD menu of the camera and enable the current settings to be acquired.

Table 3.2.22. OSD menu

Command name	Category	Command	Data value	Setting	Remarks
OSD menu On/Off control command	Control	DUS:[Data]	0 1	Menu Off Menu On	The camera OSD menu is turned On or Off.
		Response DUS:[Data]			
OSD menu On/Off query command	Request	QUS	None		
	Response	OUS:[Data]	0 1	Menu Off Menu On	
MENU switch On control command	Control	DPG	None		This cancels the (blinking) settings that are not confirmed yet.
		DPG:[Data]	1		
	Response	DPG:[Data]			
ITEM switch On control command	Control	DIT	None		Entered.
		DIT:[Data]	1		
	Response	DIT:[Data]			
YES switch On control command	Control	DUP	None		The cursor moves up (the value is changed) ※1h (1Step) is supported by the AK-UB300/AW-UE150.
		DUP:[Data]	1h Ah	1Step 10Step	
	Response	DUP:[Data]			
NO switch On control command	Control	DDW	None		The cursor moves down (the value is changed). ※1h (1Step) is supported by the AK-UB300/AW-UE150.
		DDW:[Data]	1h Ah	1Step 10Step	
	Response	DDW:[Data]			
RIGHT switch control command	Control	DRT:[Data]	1h Ah	1Step 10Step	※Only supported by the AW-HE120/AW-HE130/AK-UB300/AW-UE150. ※1h (1Step) is supported by the AK-UB300/AW-UE150.
		Response DRT:[Data]			
LEFT switch control command	Control	DLT:[Data]	1h Ah	1Step 10Step	※Only supported by the AW-HE120/AW-HE130/AK-UB300/AW-UE150. ※1h (1Step) is supported by the AK-UB300/AW-UE150.
		Response DLT:[Data]			
OSD Off With R-TALLY control command	Control	OSE:75:[Data]	0 1	Off On	• The OSD menus are not displayed when "On" is selected as this setting and R-TALLY is On. ※ Not supported by the AK-UB300.
	Response	OSE:75:[Data]			
OSD Off With	Request	QSE:75	None		※ Not supported by the AK-UB300.

Command name	Category	Command	Data value	Setting	Remarks
R-TALLY query command	Response	OSE:75:[Data]	0 1	Off On	
OSD Mix control command	Control	OSE:7B:[Data]	In the case of the AW-HE120		
			00h	OSD Mix Off	• Bit0: SD1, bit1: HDMI, bit2: Analog, bit3: Video — On or Off settings for each of the above can be selected and combined.
			01h	SDI On	
			02h	HDMI On	
			04h	Component On	
			08h	Video On	
			In the case of the AW-HE130		
			00h	OSD Mix Off	• On or Off settings for each of the above can be selected and combined.
			01h	SDI On	
			02h	HDMI On	
			08h	Video On	
			10h	IP On	
			In the case of the AW-HR140		
			00h	OSD Mix Off	• On or Off settings for each of the above can be selected and combined.
			01h	SDI On	
			10h	IP On	
			In the case of the AK-UB300(V7.20 or a later)		
			00h	OSD Mix Off	On or Off settings for each of the above can be selected and combined.
			01h	SDI On	
			10h	IP On	
			In the case of the AW-UE150		
			00h	OSD Mix Off	On or Off settings for each of the above can be selected and combined.
			01h	01h:SDI On	
			02h	02h:HDMI On	
			10h	10h:IP On	
			20h	20h:12G	
			40h	SDI/OPTICAL MONI	
OSD Mix query command	Request	QSE:7B	None		※Only supported by the AW-HE120/AW-HE130/AW-HR14 0/AK-UB300(V7.20 or a later).
	Response	OSE:7B:[Data]	In the case of the AW-HE120		
			00h	OSD Mix Off	
			01h	SDI On	
			02h	HDMI On	
			04h	Component On	
			08h	Video On	
			In the case of the AW-HE130		
			00h	OSD Mix Off	
			01h	SDI On	
			02h	HDMI On	
			08h	Video On	
			10h	IP On	
			In the case of the AW-HR140		
			00h	OSD Mix Off	
			01h	SDI On	
			10h	IP On	
			In the case of the AK-UB300(V7.20 or a later)		
			00h	OSD Mix Off	
			01h	SDI On	
			10h	IP On	
			In the case of the AW-UE150		
			00h	OSD Mix Off	
			01h	01h:SDI On	
			02h	02h:HDMI On	

Command name	Category	Command	Data value	Setting	Remarks
			10h 20h 40h	10h:IP On 20h:12G SDI/OPTICAL MONI	
CHARACTER MIX control command	Control	OSD:98: [Data1]:[Data2]	[Data1] 0 1 [Data2] 0 1 2	[Data1]Output Browser/Video SDI/HDMI,COMP [Data2]MixSelect Off On Off By Browser	※Only supported by the AW-HE60. • The Off By Browser setting takes effect only when SDI/HDMI or COMP has been selected as the Output setting.
	Response	OSD:98: [Data1]:[Data2]			
CHARACTER MIX query command	Request	QSD:98:[Data1]	[Data1] 0 1	[Data1] Output Browser/Video SDI/HDMI,COMP	※Only supported by the AW-HE60.
	Response	OSD:98: [Data1]:[Data2]	[Data1] 0 1 [Data2] 0 1 2	[Data1] Output Browser/Video SDI/HDMI,COMP [Data2] MixSelect Off On Off By Browser	※Only supported by the AW-HE60.

Example of use)

· OSD menu: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=DUS:1&res=1

[Response] AW-HE50 → PC

200 OK "DUS:1"

· OSD Off With R-TALLY: On

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:75:1&res=1

[Response] AW-HE120 → PC

200 OK "OSE:75:1"

· OSD Mix: Off

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:7B:00&res=1

[Response] AW-HE120 → PC

200 OK "OSE:7B:00"

· SDI/HDMI, COMP CHARACTER MIX: Off

[Control] PC → AW-HE60

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:98:1:0&res=1

[Response] AW-HE60 → PC

200 OK "OSD:98:1:0"

3.2.23. Smart picture flip information

This command enables the status of the camera's smart picture flip to be acquired.

Table 3.2.23. Smart picture flip information

Command name	Category	Command	Data value	Setting	Remarks
Smart picture flip status query command	Request	QFS	None		<ul style="list-style-type: none"> Basically, the information is generated by the camera itself, and posted. The current status is posted at startup as well. Current status queries are also supported by the query command. <p>• Normal is switched to Flip or vice versa depending on the Install Position setting. ※Only supported by the AW-HE120/AW-HE130/AW-HR140/AW-UE150.</p>
	Response	OFS:[Data]	0 1	Normal Flip	

Example of use)

• Smart picture flip status acquisition

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=QFS&res=1

[Response] AW-HE120 → PC

200 OK "OFS:[Data]"

3.2.24. PTZ operation setting

These commands control the setting during Pan/Tilt/Zoom operation.

Table 3.2.24. PTZ operation setting

Command name	Category	Command	Data value	Setting	Remarks
Focus ADJ With PTZ control command	Control	OAZ:[Data]	0 1	Off On	※ Not supported by the AK-UB300.
	Response	OAZ:[Data]			
Focus ADJ With PTZ query command	Request	QAZ	None		※ Not supported by the AK-UB300.
	Response	OAZ:[Data]	0 1	Off On	
P/T Speed control command	Control	OSJ:2D:[Data]	0 1	Normal Fast	※ Only supported by the AW-UE150
	Response	OSJ:2D:[Data]			
P/T Speed query command	Request	QSJ:2D	None		
	Response	OSJ:2D:[Data]	0 1	Normal Fast	

Example of use) Focus Adjust with PTZ: On

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=OAZ:1&res=1

[Response] AW-HE50 → PC

200 OK "OAZ:1"

3.2.25. Frequency setting

These commands enable the system frequency to be switched and the current setting to be acquired.

Table 3.2.25. Frequency

Command name	Category	Command	Data value	Setting	Remarks
Frequency control command	Control	OSE:77:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42AW-HE120 /AW-HE130/AW-HR140		
			0 1	59.94Hz 50Hz	※The AW-HE50 is supported by Ver.2 or a later version.
	Response	OSE:77:[Data]	In the case of the AW-UE150		
			0 1 2 3	59.94Hz 50Hz 24Hz 23.98Hz	
Frequency query command	Request	QSE:77	None		.
	Response	OSE:77:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-UE70/AW-HE42AW-HE120 /AW-HE130/AW-HR140		
			0 1	59.94Hz 50Hz	※The AW-HE50 is supported by Ver.2 or a later version.
			In the case of the AW-UE150		
			0 1 2 3	59.94Hz 50Hz 24Hz 23.98Hz	

Example of use) Frequency: 50Hz

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:77:1&res=1

[Response] AW-HE120 → PC

200 OK "OSE:77:1"

3.2.26. Error information

This command acquires the error information mainly of the camera.

Table 3.2.26. Error information

Command name	Category	Command	Data value	Setting	Remarks
Error information query command	Request	QER	None		.
	Response	OER:[Data]		In the case of the AW-HE120/AK-UB300/AW-HR140. 0 1 In the case of the AW-UE150 0 1 2	
				Normal Fan Error Other Error	※bit0:Fan Error, bit1:Other Error
Error information query command	Request	QSI:46	None		※Only supported by the AW-UE150
	Response	OSI:46:[Data]	0000000 0h 0000000 1h 0000000 2h 0000000 4h 0000000 8h 0000001 0h	No Error Fan Error High Temperature Lens Error Pan/Tilt Error Sensor Error	※bit0:Fan Error, bit1:High Temperature, bit2:Lens Error, bit3:Pan/Tilt Error, bit4:Sensor Error

Example of use)

- Error information acquisition

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=QER&res=1

[Response] AW-HE120 → PC

200 OK "OER:[Data]"

3.2.27. Night mode settings

These commands control the On/Off of the night mode.

Table 0. Night mode

Command name	Category	Command	Data value	Setting	Remarks
Night mode selection control command	Control	OSD:B2:[Data]	0 1	Manual Auto	※Only supported by the AW-HE40/ AW-UE70/AW-HE42.
	Response	OSD:B2:[Data]			
Night mode selection query command	Request	QSD:B2	None		※Only supported by the AW-HE40/ AW-UE70/AW-HE42.
	Response	OSD:B2:[Data]	0 1	Manual Auto	
Night mode level control command	Control	OSD:B7:[Data]	0 1 2	Low Mid High	※Only supported by the AW-HE40/ AW-UE70/AW-HE42.
	Response	OSD:B7:[Data]			
Night mode level query command	Request	QSD:B7	None		※Only supported by the AW-HE40/ AW-UE70/AW-HE42.
	Response	OSD:B7:[Data]	0 1 2	Low Mid High	

Example of use)

- Night mode: AUTO

[Control] PC → AW-HE40

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:B2:1&res=1

[Response] AW-HE40 → PC

200 OK "OSD:B2:1"

3.2.28. Audio settings

These commands control over audio functions.

Table 3.2.28. Audio settings

Command name	Category	Command	Data value	Setting	Remarks	
Audio settings control command	Control	OSA:D0:[Data]	0 1	OFF ON	※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42/AW-HR140 /AW-UE150.	
	Response	OSA:D0:[Data]				
Audio settings query command	Request	QSA:D0	None			
	Response	OSA:D0:[Data]	0 1	OFF ON		
Audio Input Volume control command	Control	OSA:D1:[Data]	In the case of the AW-HE130/AW-HE40/AW-UE70/AW-HE42			
	Response	OSA:D1:[Data]	0	Mic High		
			1	Mic Middle		
			2	Mic Low		
			3	Line High		
			4	Line Middle		
			In the case of the AW-UE150			
			0	Mic		
			3	Line		
Audio Input Volume query command	Request	QSA:D1	None		※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42 /AW-UE150.	
	Response	OSA:D1:[Data]	In the case of the AW-HE130/AW-HE40/AW-UE70/AW-HE42			
			0	Mic High		
			1	Mic Middle		
			2	Mic Low		
			3	Line High		
			In the case of the AW-UE150			
			0	Mic		
			3	Line		
Audio Plugin Power control command	Control	OSA:D2:[Data]	0	OFF	※Only supported by the AW-HE130/AW-HE40/AW-UE70/AW-HE42 /AW-UE150.	
	Response	OSA:D2:[Data]	1	ON		
Audio Plugin Power query command	Request	QSA:D2	None			
	Response	OSA:D2:[Data]	0 1	OFF ON		
Audio auto level adjust control command	Control	OSD:BB:[Data]	0 1	OFF ON	*AW-UE70/AW-HE42, AW-HE40	
	Response	OSD:BB:[Data]				
Audio auto level adjust query command	Request	QSD:BB	None			
	Response	OSD:BB:[Data]	0 1	OFF ON		
Audio equalizer control command	Control	OSD:BC:[Data]	0 1 2	OFF LowCUT VOICE		
	Response	OSD:BC:[Data]				
	Request	QSD:BC	None			
	Response	OSD:BC:[Data]	0 1 2	OFF LowCUT VOICE		
Audio Line Input Level	Control	OSA:D4:[Data1]:[Data2]	[Data1] 0	CH1/CH3	※Only supported by the AW-HR140	

Command name	Category	Command	Data value	Setting	Remarks	
control command	Response	OSA:D4:[Data1]:[Data2]	1 [Data2] 0 1 2	CH2/CH4 +4dB 0dB -20dB		
Audio Line Input Level query command	Request	QSA:D4:[Data1]	[Data1] 0 1	CH1/CH3 CH2/CH4		
	Response	OSA:D4:[Data1]:[Data2]	[Data1] 0 1 [Data2] 0 1 2	CH1/CH3 CH2/CH4 +4dB 0dB -20dB		
Audio Output Volume control command	Control	OSA:D5:[Data1]:[Data2]	In the case of the AW-HR140			
	Response	OSA:D5:[Data1]:[Data2]	[Data1] 0 1 2 3 [Data2] 58h - 80h - 8Ch	CH1 CH2 CH3 CH4 -40dB - 0dB - 12dB		
In the case of the AW-UE150						
[Data1] 0 [Data2] 5Ch - 80h - 8Ch	CH1 -36dB - 0dB - 12dB					
Audio Output Volume query command	Request	QSA:D5:[Data1]	In the case of the AW-HR140			
	[Data1] 0 1 2 3	CH1 CH2 CH3 CH4				
In the case of the AW-UE150						
[Data1] 0	CH1					
	Response	OSA:D5:[Data1]:[Data2]		In the case of the AW-HR140		
	[Data1] 0 1 2 3 [Data2] 58h - 80h - 8Ch	CH1 CH2 CH3 CH4 -40dB - 0dB - 12dB				
In the case of the AW-UE150						
[Data1] 0	CH1					

Command name	Category	Command	Data value	Setting	Remarks
			[Data2] 5Ch - 80h - 8Ch	-36dB - 0dB - 12dB	
Audio Head Room control command	Control	OSA:D6:[Data]	0	FS-12dB	※Only supported by the AW-HR140
	Response	OSA:D6:[Data]	1 2	FS-18dB FS-20dB	
Audio Head Room query command	Request	QSA:D6	None		
	Response	OSA:D6:[Data]	0 1 2	FS-12dB FS-18dB FS-20dB	
Audio Line CH Select control command	Control	OSA:D7:[Data]	0 1 2 3	All CH1/CH2 CH3/CH4 Non	※Only supported by the AW-HR140
	Response	OSA:D7:[Data]	0 1 2 3	All CH1/CH2 CH3/CH4 Non	
Audio Line CH Select query command	Request	QSA:D7	None		
	Response	OSA:D7:[Data]	0 1 2 3	All CH1/CH2 CH3/CH4 Non	

Example of use)

- Audio settings: ON

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D0:1&res=1

[Response] AW-HE130→ PC

200 OK "OSA:D0:1"

3.2.29. Tally Brightness settings

These commands control the brightness of the tally LEDs.

Table 3.2.29. Tally Brightness settings

Command name	Category	Command	Data value	Setting	Remarks
Tally Brightness settings control command	Control	OSA:D3:[Data]	0 1 2	LOW MID HIGH	※Only supported by the AW-HE130 /AW-UE150. ※Effective for R-Tally, G-Tally
	Response	OSA:D3:[Data]			
Tally Brightness settings query command	Request	QSA:D3	None		※Only supported by the AW-HE130 /AW-UE150.
	Response	OSA:D3:[Data]	0 1 2	LOW MID HIGH	

Example of use)

- Tally Brightness settings: MID

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D3:1&res=1

[Response] AW-HE130→ PC

200 OK "OSA:D3:1"

3.2.30. Knee settings

These commands control over Knee.

Table 3.2.30. Knee settings

Command name	Category	Command	Data value	Setting	Remarks
Knee Mode control command	Control	OSA:2D:[Data]	0 1 2	OFF MANUAL AUTO	※Only supported by the AW-HE130/AW-HR140/AW-UE150/AK-UB300. •When DRS is set to On, the knee setting is disabled.
	Response	OSA:2D:[Data]			
Knee Mode query command	Request	QSA:2D	None		※Only supported by the AW-HE130/AW-HR140/AW-UE150/AK-UB300.
	Response	OSA:2D:[Data]	0 1 2	OFF MANUAL AUTO	
MASTER KNEE POINT control command	Control	OSA:20:[Data]	In the case of the AW-HE130/AW-HR140/AW-UE150.		
			22h	70.00%	(1step=0.5%)
	Response	OSA:20:[Data]	ℓ	ℓ	
			80h	93.50%	
			ℓ	ℓ	
			B6h	107.00%	
			In the case of the AK-UB300		
			4Ah	80.00%	(1step=0.5%)
			ℓ	ℓ	
			80h	93.50%	
			ℓ	ℓ	
			C2h	110.00%	
MASTER KNEE POINT query command	Request	QSA:20	None		
	Response	OSA:20:[Data]	In the case of the AW-HE130/AW-HR140/AW-UE150.		
			22h	70.00%	(1step=0.5%)
			ℓ	ℓ	
			80h	93.50%	
			ℓ	ℓ	
			B6h	107.00%	
			In the case of the AK-UB300		
			4Ah	80.00%	(1step=0.5%)
			ℓ	ℓ	
MASTER KNEE SLOPE control command	Control	OSA:24:[Data]	In the case of the AW-HE130/AW-HR140/AW-UE150		
	Response	OSA:24:[Data]	00h	0	
			ℓ	ℓ	
			63h	99	
			In the case of the AK-UB300		
			00h	0	
			ℓ	ℓ	
MASTER KNEE SLOPE query command	Request	QSA:24	None		
	Response	OSA:24:[Data]	In the case of the AW-HE130/AW-HR140/AW-UE150		
			00h	0	
			ℓ	ℓ	
			63h	99	
			In the case of the AK-UB300		
			00h	0	
			ℓ	ℓ	
AUTO KNEE	Control	OSG:97:[Data]	1	1	※Only supported by the

Command name	Category	Command	Data value	Setting	Remarks
RESPONSE control command	Response	OSG:97:[Data]	8 8	8	AK-UB300/AW-UE150
AUTO KNEE RESPONSE query command	Request	QSG:97	None		※Only supported by the AK-UB300/AW-UE150
	Response	OSG:97:[Data]	1 8 8	1 8	
HLG KNEE SW control command	Control	OSI:40:[Data]	0	OFF	※Only supported by the AK-UB300/AW-UE150
	Response	OSI:40:[Data]	1	ON	
HLG KNEE SW query command	Request	QSI:40	None		※Only supported by the AK-UB300/AW-UE150
	Response	OSI:40:[Data]	0 1	OFF ON	
HLG KNEE POINT control command	Control	OSI:41:[Data]	In the case of the AK-UB300		
			30h 80h D0h	60.00% 80.00% 100.00%	(1step=0.25%)
			In the case of the AW-UE150		
			1Ch 80h D0h	55.00% 80.00% 100.00%	(1step=0.25%) Valid for 4 step units only: 1% increments
			Response	OSI:41:[Data]	
			1Ch 80h D0h	55.00% 80.00% 100.00%	
			Request	QSI:41	
			None		
HLG KNEE POINT query command	Request	QSI:41	In the case of the AK-UB300		
			30h 80h D0h	60.00% 80.00% 100.00%	(1step=0.25%)
			In the case of the AW-UE150		
			1Ch 80h D0h	55.00% 80.00% 100.00%	(1step=0.25%) Valid for 4 step units only: 1% increments
			Response	OSI:41:[Data]	
			1Ch 80h D0h	55.00% 80.00% 100.00%	
			Request	QSI:41	
			None		
HLG KNEE SLOPE control command	Control	OSI:42:[Data]	In the case of the AK-UB300		
			00h C7h	0 199	
			In the case of the AW-UE150		
			00h 64h	0 100	
			Response	OSI:42:[Data]	
			00h 64h	0 100	
			Request	QSI:42	
			None		
HLG KNEE SLOPE query command	Request	QSI:42	In the case of the AK-UB300		
			00h C7h	0 199	
			In the case of the AW-UE150		
			00h 64h	0 100	
			Response	OSI:42:[Data]	
			00h 64h	0 100	
			Request	QSI:42	
			None		
R KNEE POINT control command	Control	OSA:22:[Data]	1Ch 80h	-25.00% 0.00%	※Only supported by the AK-UB300
	Response	OSA:22:[Data]	80h	0.00%	

Command name	Category	Command	Data value	Setting	Remarks
R KNEE POINT query command	Request	QSA:22	None	\r\nE4h\r\n+25.00%	(1step=0.25%)
	Response	OSA:22:[Data]	1Ch\r\n\r\n80h\r\n\r\nE4h	-25.00%\r\n\r\n0.00%\r\n\r\n+25.00%	
B KNEE POINT control command	Control	OSA:23:[Data]	1Ch	-25.00%	※Only supported by the AK-UB300 (1step=0.25%)
	Response	OSA:23:[Data]	\r\n80h\r\n\r\nE4h	\r\n0.00%\r\n\r\n+25.00%	
B KNEE POINT query command	Request	QSA:23	None		
	Response	OSA:23:[Data]	1Ch\r\n\r\n80h\r\n\r\nE4h	-25.00%\r\n\r\n0.00%\r\n\r\n+25.00%	
R KNEE SLOPE control command	Control	OSA:26:[Data]	1Dh\r\n\r\n80h\r\n\r\nE3h	-99\r\n\r\n0\r\n\r\n+99	※Only supported by the AK-UB300
	Response	OSA:26:[Data]	\r\n\r\nE3h	\r\n0\r\n\r\n+99	
R KNEE SLOPE query command	Request	QSA:26	None		
	Response	OSA:26:[Data]	1Dh\r\n\r\n80h\r\n\r\nE3h	-99\r\n\r\n0\r\n\r\n+99	
B KNEE SLOPE control command	Control	OSA:27:[Data]	1Dh\r\n\r\n80h\r\n\r\nE3h	-99\r\n\r\n0\r\n\r\n+99	※Only supported by the AK-UB300
	Response	OSA:27:[Data]	\r\n\r\nE3h	\r\n0\r\n\r\n+99	
B KNEE SLOPE query command	Request	QSA:27	None		
	Response	OSA:27:[Data]	1Dh\r\n\r\n80h\r\n\r\nE3h	-99\r\n\r\n0\r\n\r\n+99	
AUTO KNEE POINT control command	Control	OSA:28:[Data]	4Ah\r\n\r\n80h\r\n\r\nB6h	80.00%\r\n\r\n93.50%\r\n\r\n107.00%	※Only supported by the AK-UB300 (1step=0.25%)
	Response	OSA:28:[Data]	\r\n\r\nB6h	\r\n93.50%\r\n\r\n107.00%	
AUTO KNEE POINT query command	Request	QSA:28	None		
	Response	OSA:28:[Data]	4Ah\r\n\r\n80h\r\n\r\nB6h	80.00%\r\n\r\n93.50%\r\n\r\n107.00%	
AUTO KNEE LEVEL control command	Control	OSA:29:[Data]	7Ch	100%	※Only supported by the AK-UB300
	Response	OSA:29:[Data]	\r\n85h	\r\n109%	

Command name	Category	Command	Data value	Setting	Remarks
AUTO KNEE LEVEL query command	Request	QSA:29	None		(1step=1%)
	Response	OSA:29:[Data]	7Ch ↳ 85h	100% ↳ 109%	

Example of use)

- Knee Mode: MANUAL

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:2D:1&res=1

[Response] AW-HE130→ PC

200 OK "OSA:2D:1"

- MASTER KNEE POINT: 93.50%

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:20:80&res=1

[Response] AW-HE130→ PC

200 OK "OSA:20:80"

- MASTER KNEE SLOPE: 0

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:24:00&res=1

[Response] AW-HE130→ PC

200 OK "OSA:24:00"

3.2.31. White Clip settings

These commands control over White Clip.

Table 3.2.31. White Clip settings

Command name	Category	Command	Data value	Setting	Remarks
White Clip settings control command	Control	OSA:2E:[Data]	0 1	OFF ON	※Only supported by the AW-HE130/AW-HR140/AW-UE150.
	Response	OSA:2E:[Data]			
White Clip settings query command	Request	QSA:2E	None		※Only supported by the AW-HE130/AW-HR140/AW-UE150..
	Response	OSA:2E:[Data]	0 1	OFF ON	
White Clip Level control command	Control	OSA:2A:[Data]	00h ` 13h	90% ` 109%	※Only supported by the AW-HE130/AW-HR140/AW-UE150.. • When [Knee Mode] is set to Auto and the White Clip value is changed, the Knee value will also change.
	Response	OSA:2A:[Data]			
White Clip Level query command	Request	QSA:2A	None		※Only supported by the AW-HE130/AW-HR140/AW-UE150..
	Response	OSA:2A:[Data]	00h ` 13h	90% ` 109%	

Example of use)

·White Clip settings: ON

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:2E:1&res=1

[Response] AW-HE130→ PC

200 OK "OSA:2E:1"

·White Clip Level: 90%

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:2A:00&res=1

[Response] AW-HE130→ PC

200 OK "OSA:2A:00"

3.2.32. OIS settings

These commands control over OIS.

Table 3.2.32. OIS settings

Command name	Category	Command	Data value	Setting	Remarks
OIS settings control command	Control	OIS:[Data]	In the case of the AW-HE130/AW-HE40/AW-UE70/AW-HE42		
			0	Off	• Models AW-HE40 provide electronic image stabilization instead.
			1	On	
			2	On(Mode2) **	• The formats marked with ** are supported only by the AW-UE70/AW-HE42.
			In the case of the AW-HR140		
	Response	OIS:[Data]	0	Off	• Models AW-HE40 provide electronic image stabilization instead.
			1	OIS	
			2	Dynamic I.S. System	
			In the case of the AW-UE150		
			0	Off	• The formats marked with ** are supported only by the AW-UE70/AW-HE42.
			1	On	
OIS settings query command	Request	QIS	None		
	Response	OIS:[Data]	In the case of the AW-HE130/AW-HE40/AW-UE70/AW-HE42		
			0	Off	• Models AW-HE40 provide electronic image stabilization instead.
			1	On	
			2	On(Mode2) **	
			In the case of the AW-HR140		
			0	Off	• Models AW-HE40 provide electronic image stabilization instead.
			1	OIS	
			2	Dynamic I.S. System	
			In the case of the AW-UE150		
			0	Off	• The formats marked with ** are supported only by the AW-UE70/AW-HE42.
			1	On	

Example of use)

• OIS settings: On

[Control] PC → AW-HE130

http://192.168.0.10/cgi-bin/aw_cam?cmd=OIS:1&res=1

[Response] AW-HE130→ PC

200 OK "OIS:1"

3.2.33. HDR settings

These commands control over HDR.

Table 3.2.33. HDR settings

Command name	Category	Command	Data value	Setting	Remarks
HDR settings control command	Control	OSD:B4:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
			0	Off	
	Response		1	Low	
			3	High	
HDR settings query command	Request	QSD:B4	None		
	Response	OSD:B4:[Data]	In the case of the AW-HE40/AW-UE70/AW-HE42		
HDR SW (MAIN) control command	Control	OSI:2C:[Data]	0	OFF	※Only supported by the AK-UB300
	Response		1	ON	
HDR SW (MAIN) query command	Request	QSI:2C	None		
	Response	OSI:2C:[Data]	0	OFF	
COLORIMETRY control command	Control	OSI:2D:[Data]	00h	no effect	※Only supported by the AK-UB300
	Response		01h	BT.709	
COLORIMETRY query command	Request	QSI:2D	None		
	Response	OSI:2D:[Data]	00h	no effect	
HDR SW (SDI1) control command	Control	OSI:2E:[Data]	0	OFF	※Only supported by the AK-UB300
	Response		1	ON	
HDR SW (SDI1) query command	Request	QSI:2E	None		
	Response	OSI:2E:[Data]	0	OFF	
HDR SW (IP) control command	Control	OSI:2F:[Data]	0	OFF	※Only supported by the AK-UB300
	Response		1	ON	
HDR SW (IP) query command	Request	QSI:2F	None		
	Response	OSI:2F:[Data]	0	OFF	
HDR SW (SDI2) control command	Control	OSI:31:[Data]	0	OFF	※Only supported by the AK-UB300
	Response		1	ON	
HDR SW (SDI2) query command	Request	QSI:31	None		
	Response	OSI:31:[Data]	0	OFF	
HLG MODE control command	Control	OSI:39:[Data]	0	FIX	※Only supported by the AK-UB300
	Response		1	VAR	
HLG MODE query command	Request	QSI:39	None		
	Response	OSI:39:[Data]	0	FIX	
HLG SDR CONVERT MODE control command	Control	OSI:3A:[Data]	0	VAR	※Only supported by the AK-UB300
	Response		1	VAR	
HLG SDR CONVERT MODE query command	Request	QSI:3A	None		
	Response	OSI:3A:[Data]	0	FIX	
HLG TYPE SELECT	Control	OSI:3B:[Data]	0	NORMAL	※Only supported by the

Command name	Category	Command	Data value	Setting	Remarks
control command	Response	OSI:3B:[Data]	1	STRETCH	AK-UB300
HLG TYPE SELECT query command	Request	QSI:3B	None		
	Response	OSI:3B:[Data]	0 1	NORMAL STRETCH	
HLG BLACK GAMMA SW control command	Control	OSI:3C:[Data]	0	OFF	※Only supported by the AK-UB300
	Response	OSI:3C:[Data]	1	ON	
HLG BLACK GAMMA SW query command	Request	QSI:3C	None		
	Response	OSI:3C:[Data]	0 1	OFF ON	
HLG MASTER BLACK GAMMA control command	Control	OSI:3D:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	※Only supported by the AK-UB300
	Response	OSI:3D:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	
HLG MASTER BLACK GAMMA query command	Request	QSI:3D	None		
	Response	OSI:3D:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	
HLG R BLACK GAMMA control command	Control	OSI:3E:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	※Only supported by the AK-UB300
	Response	OSI:3E:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	
HLG R BLACK GAMMA query command	Request	QSI:3E	None		
	Response	OSI:3E:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	
HLG B BLACK GAMMA control command	Control	OSI:3F:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	※Only supported by the AK-UB300
	Response	OSI:3F:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	
HLG B BLACK GAMMA query command	Request	QSI:3F	None		
	Response	OSI:3F:[Data]	60h ` 80h ` A0h	-32 ` 0 ` +32	
HLG SDR CONVERT GAIN control command	Control	OSI:43:[Data]	74h 77h 7Ah 7Dh 80h	-12 -9 -6 -3 0	※Only supported by the AK-UB300
	Response	OSI:43:[Data]	74h 77h 7Ah 7Dh 80h	-12 -9 -6 -3 0	
HLG SDR CONVERT GAIN query command	Request	QSI:43	None		
	Response	OSI:43:[Data]	74h 77h 7Ah 7Dh 80h	-12 -9 -6 -3 0	

Command name	Category	Command	Data value	Setting	Remarks
HLG SDR CONVERT CLIP control command	Control	OSI:44:[Data]	0	LOW	※Only supported by the AK-UB300
	Response	OSI:44:[Data]	1 2	MID HIGH	
HLG SDR CONVERT CLIP query command	Request	QSI:44	None		
	Response	OSI:44:[Data]	0 1 2	LOW MID HIGH	

Example of use)

- HDR settings: Off

[Control] PC → AW-HE40

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:B4:0&res=1

[Response] AW-HE40 → PC

200 OK "OSD:B4:0"

3.2.34. Software version information

This command enables the software version information to be acquired.

Table 3.2.34. Software version information

Command name	Category	Command	Data value	Setting	Remarks
Software version information query command	Request	QSI:19:[Data1]	[Data1] 0 1 2 3 4 5 6	SYSTEM VERSION CAM MAIN NETWORK ROM TABLE CAM FPGA AVIO FPGA OPTION FPGA	※ Only supported by the AK-UB300.
	Response	OSI:19:[Data1]:[Data2]	[Data1] 0 1 2 3 4 5 6 [Data2] (Ver. String)	SYSTEM VERSION CAM MAIN NETWORK ROM TABLE CAM FPGA AVIO FPGA OPTION FPGA EX) 01.00-000-00.00	※ Only supported by the AK-UB300.

Example of use)

• Software version information acquisition: CAM MAIN

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=QSI:19:1&res=1

[Response] AK-UB300 → PC

200 OK "OSI:19:1:01.00-000-00.00"

3.2.35. Tally settings

These commands perform ON/OFF controls for tallies.

Table 3.2.35. Tally settings

Command name	Category	Command	Data value	Setting	Remarks
RED tally settings control command	Control	TLR:[Data]	0 1	Off On	※ Only supported by the AK-UB300/AW-UE150.
	Response	TLR:[Data]			
RED tally settings query command	Request	QLR	None		※ Only supported by the AK-UB300/AW-UE150.
	Response	OLR:[Data]	0 1	Off On	
GREEN tally settings control command	Control	TLG:[Data]	0 1	Off On	※ Only supported by the AK-UB300/AW-UE150.
	Response	TLG:[Data]			
GREEN tally settings query command	Request	QLG	None		※ Only supported by the AK-UB300/AW-UE150.
	Response	OLG:[Data]	0 1	Off On	

Example of use)

- RED tally settings: On

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=TLR:1&res=1

[Response] AK-UB300 → PC

200 OK "TLR:1"

3.2.36. SKIN TONE DETAIL settings

These commands configure the skin tone detail settings and acquire the current setting values.

Table 3.2.36. SKIN TONE DETAIL settings

Command name	Category	Command	Data value	Setting	Remarks
SKIN TONE DETAIL control command	Control	OSA:40:[Data]	0 1	Off On	※ Only supported by the AK-UB300/AW-UE150.
	Response	OSA:40:[Data]			
SKIN TONE DETAIL query command	Request	QSA:40	None		
	Response	OSA:40:[Data]	0 1	Off On	
SKIN GET control command	Control	OSA:41:[Data]	0 1 2	Off On Get	※ Only supported by the AK-UB300.
	Response	OSA:41:[Data]			
SKIN GET query command	Request	QSA:41	None		
	Response	OSA:41:[Data]	0 1 2	Off On Get	
MEMORY SELECT control command	Control	OSG:42:[Data]	0 1 2	A B C	※ Only supported by the AK-UB300.
	Response	OSG:42:[Data]			
MEMORY SELECT query command	Request	QSG:42	None		
	Response	OSG:42:[Data]	0 1 2	A B C	
H POSITION control command	Control	OSG:44:[Data]	000h ↳ 190h	0% ↳ 100.00%	※ Only supported by the AK-UB300. •0.25% steps
	Response	OSG:44:[Data]			
H POSITION query command	Request	QSG:44	None		
	Response	OSG:44:[Data]	000h ↳ 190h	0% ↳ 100.00%	
V POSITION control command	Control	OSG:45:[Data]	000h ↳ 190h	0% ↳ 100.00%	※ Only supported by the AK-UB300. •0.25% steps
	Response	OSG:45:[Data]			
V POSITION query command	Request	QSG:45	None		
	Response	OSG:45:[Data]	000h ↳ 190h	0% ↳ 100.00%	
SKIN TONE ZEBRA control command	Control	OSA:49:[Data]	0 1	Off On	※ Only supported by the AK-UB300.
	Response	OSA:49:[Data]			
SKIN TONE ZEBRA query command	Request	QSA:49	None		
	Response	OSA:49:[Data]	0 1	Off On	

Command name	Category	Command	Data value	Setting	Remarks
ZEBRA EFFECT MEMORY control command	Control	OSG:47:[Data]	0	A	※ Only supported by the AK-UB300.
			1	B	
			2	C	
			3	A+B	
			4	A+C	
			5	B+C	
			6	A+B+C	
ZEBRA EFFECT MEMORY query command	Request	QSG:47	None		
	Response	OSG:47:[Data]	0	A	
			1	B	
			2	C	
			3	A+B	
			4	A+C	
			5	B+C	
SKIN TONE EFFECT MEMORY control command	Control	OSG:48:[Data]	0	A	※ Only supported by the AK-UB300.
			1	B	
			2	C	
			3	A+B	
			4	A+C	
			5	B+C	
			6	A+B+C	
SKIN TONE EFFECT MEMORY query command	Request	QSG:48	None		
	Response	OSG:48:[Data]	0	A	
			1	B	
			2	C	
			3	A+B	
			4	A+C	
			5	B+C	
			6	A+B+C	
SKIN TONE CRISP control command	Control	OSG:49:[Data]	41h ` 80h	-63 ` 0	※ Only supported by the AK-UB300.
	BFh	` +63			
	Request	QSG:49	None		
	Response	OSG:49:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
SKIN TONE CRISP query command	Request	QSG:49	None		
	Response	OSG:49:[Data]	41h ` 80h ` BFh	-63 ` 0 ` +63	
SKIN TONE DTL I CENTER control command	Control	OSA:45:[Data]	00h ` FFh	0 ` 255	※ Only supported by the AK-UB300.
SKIN TONE DTL I CENTER query command	Request	QSA:45	None		
	Response	OSA:45:[Data]	00h ` FFh	0 ` 255	

Command name	Category	Command	Data value	Setting	Remarks
SKIN TONE DTL I WIDTH control command	Control	OSA:46:[Data]	00h ` FFh	0 ` 255	※ Only supported by the AK-UB300.
	Response	OSA:46:[Data]			
SKIN TONE DTL I WIDTH query command	Request	QSA:46	None		
	Response	OSA:46:[Data]	00h ` FFh	0 ` 255	
SKIN TONE DTL Q WIDTH control command	Control	OSA:47:[Data]	00h ` FFh	0 ` 255	※ Only supported by the AK-UB300.
	Response	OSA:47:[Data]			
SKIN TONE DTL Q WIDTH query command	Request	QSA:47	None		
	Response	OSA:47:[Data]	00h ` FFh	0 ` 255	
SKIN TONE Q PHASE control command	Control	OSG:4F:[Data]	000h ` 167h	0 ` 359	※ Only supported by the AK-UB300.
	Response	OSG:4F:[Data]			
SKIN TONE Q PHASE query command	Request	QSG:4F	None		
	Response	OSG:4F:[Data]	000h ` 167h	0 ` 359	

Example of use)

- SKIN TONE DETAIL settings: On

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:40:1&res=1

[Response] AK-UB300 → PC

200 OK "OSA:40:1"

3.2.37. Haze reduction

These commands configure the haze reduction settings and acquire the current setting values.

Table 3.2.37. Haze reduction

Command name	Category	Command	Data value	Setting	Remarks
HAZE REDUCTION control command	Control	OSG:B6:[Data]	0 1	Off On	※ Only supported by the AK-UB300/AW-HR140.
	Response	OSG:B6:[Data]			
HAZE REDUCTION query command	Request	QSG:B6	None		
	Response	OSG:B6:[Data]	0 1	Off On	
HAZE REDUCTION LEVEL control command	Control	OSG:B7:[Data]	1 2 3	1 2 3	※ Only supported by the AK-UB300/AW-HR140.
	Response	OSG:B7:[Data]			
HAZE REDUCTION LEVEL query command	Request	QSG:B7	None		
	Response	OSG:B7:[Data]	1 2 3	1 2 3	

Example of use)

·HAZE REDUCTION settings: On

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSG:B6:1&res=1

[Response] AK-UB300 → PC

200 OK "OSG:B6:1"

3.2.38. 4K crop

These commands configure the 4K crop settings and acquire the current setting values.

Table 3.2.38. 4K crop

Command name	Category	Command	Data value	Setting	Remarks
CROP OUT SEL control command	Control	OSI:16:[Data]	1 2 3	YL G MG	※ Only supported by the AK-UB300/AW-UE150.
	Response	OSI:16:[Data]			
CROP OUT SEL query command	Request	QSI:16	None		※ Only supported by the AK-UB300/AW-UE150.
	Response	OSI:16:[Data]	1 2 3	YL G MG	
CROP ADJ SEL control command	Control	OSI:17:[Data]	1 2 3	YL G MG	※ Only supported by the AK-UB300/AW-UE150.
	Response	OSI:17:[Data]	1 2 3	YL G MG	
CROP ADJ SEL query command	Request	QSI:17	None		※ Only supported by the AK-UB300/AW-UE150.
	Response	OSI:17:[Data]	1 2 3	YL G MG	
CROP H/V POSITION Speed Control control command	Control	OSI:15:[Data1]: [Data2]	[Data1] 01 ‐ 50 ‐ 99 [Data2] 01 ‐ 50 ‐ 99	[Data1] Left Max. Speed ‐ Stop ‐ Right Max. Speed [Data2] Down Max. Speed ‐ Stop ‐ Up Max. Speed	※ Only supported by the AK-UB300/AW-UE150.
	Response	OSI:15:[Data1]: [Data2]			
CROP MARKER SEL control command	Control	OSI:1A:[Data]	In the case of the AK-UB300		
			1 2 3 4 5 6 7	YL G MG YL+G YL+MG G+MG YL+G+MG	
	Response	OSI:1A:[Data]	In the case of the AW-UE150		
			0 1 2 3 4 5 6 7	Off YL G MG YL+G YL+MG G+MG YL+G+MG	
CROP MARKER SEL	Request	QSI:1A	None		
	Response	OSI:1A:[Data]	In the case of the AK-UB300		

Command name	Category	Command	Data value	Setting	Remarks
query command			1 2 3 4 5 6 7	YL G MG YL+G YL+MG G+MG YL+G+MG	
In the case of the AW-UE150					
			0 1 2 3 4 5 6 7	Off YL G MG YL+G YL+MG G+MG YL+G+MG	
CROP H POSITION control command	Control	OSI:1B:[Data]	738h ~ 800h ~ 8C8h	-50% ~ 0% ~ +50%	※ Only supported by the AK-UB300. • 0.25% units
CROP H POSITION query command	Request	QSI:1B	None		
	Response	OSI:1B:[Data]	738h ~ 800h ~ 8C8h	-50% ~ 0% ~ +50%	
CROP V POSITION control command	Control	OSI:1C:[Data]	738h ~ 800h ~ 8C8h	-50% ~ 0% ~ +50%	※ Only supported by the AK-UB300. • 0.25% units
CROP V POSITION query command	Request	QSI:1C	None		
	Response	OSI:1C:[Data]	738h ~ 800h ~ 8C8h	-50% ~ 0% ~ +50%	
Crop SDI Out Select control command	Control	OSI:32:[Data]	0	FULL	※ Only supported by the AK-UB300/AW-UE150
	Response	OSI:32:[Data]	1	CROP	
Crop SDI Out Select query command	Request	QSI:32:[Data]	None		
	Response	OSI:32:[Data]	0 1	FULL CROP	
UHD Crop control command	Control	OSJ:2E:[Data]	0 1 2	Off Crop(1080) Crop(720)	※ Only supported by the AW-UE150
UHD Crop query command	Request	QSJ:2E	None		
	Response	OSJ:2E:[Data]	0 1 2	Off Crop(1080) Crop(720)	
Crop H POS. (YL) control command	Control	OSJ:2F:[Data]	000h ~ 780h ~	0 ~ 1920 ~	※ Only supported by the AW-UE150 ※ Even only ※ [Crop(1080)]
	Response	OSJ:2F:[Data]			

Command name	Category	Command	Data value	Setting	Remarks
Crop H POS. (YL) query command	Request	QSJ:2F	A00h	2560	0-1920 [Crop(720)] 0-2560
	Response	OSJ:2F:[Data]	None 000h ~ 780h ` A00h	0 ~ 1920 ` 2560	
Crop V POS. (YL) control command	Control	OSJ:30:[Data]	000h	0	※Only supported by the AW-UE150 ※[Crop(1080)] 0-1080 [Crop(720)] 0-1440
	Response	OSJ:30:[Data]	~ 438h ` 5A0h	~ 1080 ` 1440	
Crop V POS. (YL) query command	Request	QSJ:30	None		
	Response	OSJ:30:[Data]	000h ~ 438h ` 5A0h	0 ~ 1080 ` 1440	
Crop H POS. (G) control command	Control	OSJ:31:[Data]	000h	0	※Only supported by the AW-UE150 ※Even only ※[Crop(1080)] 0-1920 [Crop(720)] 0-2560
	Response	OSJ:31:[Data]	~ 780h ` A00h	~ 1920 ` 2560	
Crop H POS. (G) query command	Request	QSJ:31	None		
	Response	OSJ:31:[Data]	000h ~ 780h ` A00h	0 ~ 1920 ` 2560	
Crop V POS. (G) control command	Control	OSJ:32:[Data]	000h	0	※Only supported by the AW-UE150 ※[Crop(1080)] 0-1080 [Crop(720)] 0-1440
	Response	OSJ:32:[Data]	~ 438h ` 5A0h	~ 1080 ` 1440	
Crop V POS. (G) query command	Request	QSJ:32	None		
	Response	OSJ:32:[Data]	000h ~ 438h ` 5A0h	0 ~ 1080 ` 1440	
Crop H POS. (MG) control command	Control	OSJ:33:[Data]	000h	0	※Only supported by the AW-UE150 ※Even only ※[Crop(1080)] 0-1920 [Crop(720)] 0-2560
	Response	OSJ:33:[Data]	~ 780h ` A00h	~ 1920 ` 2560	
Crop H POS. (MG) query command	Request	QSJ:33	None		
	Response	OSJ:33:[Data]	000h ~ 780h ` A00h	0 ~ 1920 ` 2560	
Crop V POS. (MG) control command	Control	OSJ:34:[Data]	000h	0	※Only supported by the AW-UE150 ※[Crop(1080)] 0-1080 [Crop(720)] 0-1440
	Response	OSJ:34:[Data]	~ 438h ` 5A0h	~ 1080 ` 1440	
Crop V POS. (MG) query command	Request	QSJ:34	None		
	Response	OSJ:34:[Data]	000h ~	0 ~	

Command name	Category	Command	Data value	Setting	Remarks
			438h ` 5A0h	1080 ` 1440	
Crop IP Out Select control command	Control	OSI:33:[Data]	0	FULL	※Only supported by the AK-UB300/AW-UE150
	Response	OSI:33:[Data]	1	CROP	
Crop IP Out Select query command	Request	QSI:33	None		
	Response	OSI:33:[Data]	0 1	FULL CROP	
CROP H/V POSITION (YL) Speed control command	Control	OSJ:5D:[Data1] 1:[Data2]	[Data1] 01 - 50 - 99	[Data1] Left Max. Speed - Stop - Right Max. Speed	※Only supported by the AW-UE150
	Response	OSJ:5D:[Data1] 1:[Data2]	[Data2] 01 - 50 - 99	[Data2] Down Max. Speed - Stop - UP Max. Speed	
CROP H/V POSITION (G) Speed control command	Control	OSJ:5E:[Data1] 1:[Data2]	[Data1] 01 - 50 - 99	[Data1] Left Max. Speed - Stop - Right Max. Speed	※Only supported by the AW-UE150
	Response	OSJ:5E:[Data1] 1:[Data2]	[Data2] 01 - 50 - 99	[Data2] Down Max. Speed - Stop - UP Max. Speed	
CROP H/V POSITION (MG) Speed control command	Control	OSJ:5F:[Data1] 1:[Data2]	[Data1] 01 - 50 - 99	[Data1] Left Max. Speed - Stop - Right Max. Speed	※Only supported by the AW-UE150
	Response	OSJ:5F:[Data1] 1:[Data2]	[Data2] 01 - 50 - 99	[Data2] Down Max. Speed - Stop - UP Max. Speed	
Crop Position (YL, G, MG) query command	Request	QSJ:60	None		※Only supported by the AW-UE150 ※[Crop(1080)] H POSITION : 0-1920 V POSITION : 0-1080 [Crop(720)] H POSITION : 0-2560 V POSITION : 0-1440
	Response	OSJ:60:[Data1] 1:[Data2]:[Data3]:[Data4]:[Data5]:[Data6]	[Data1] 000h - 780h - A00h [Data2] 000h -	[Data1] H POS (YL) 0 - 1920 - 2560 [Data2] V POS (YL) 0 -	

Command name	Category	Command	Data value	Setting	Remarks
			438h - 5A0h [Data3] 000h - 780h - A00h [Data4] 000h - 438h - 5A0h [Data5] 000h - 780h - A00h [Data6] 000h - 438h - 5A0h	1080 - 1440 [Data3] H POS (G) 0 - 1920 - 2560 [Data4] V POS (G) 0 - 1080 - 1440 [Data5] H POS (MG) 0 - 1920 - 2560 [Data6] V POS (MG) 0 - 1080 - 1440	
CROP H/V POSITION Speed Control (YL/G/MG)	Control Response	OSJ:A0:[Data1]]:[Data2]:[Data3]:[Data4]:[Data5]:[Data6]	[Data1] 01 - 50 - 99 [Data2] 01 - 50 - 99 [Data3] 01 - 50 - 99 [Data4] 01 - 50 - 99 [Data5] 01 - 50	[Data1] (YL) Left Max. Speed - Stop - Right Max. Speed [Data2] (YL) Down Max. Speed - Stop - UP Max. Speed [Data3] (G) Left Max. Speed - Stop - Right Max. Speed [Data4] (G) Down Max. Speed - Stop - UP Max. Speed [Data5] (MG) Left Max. Speed - Stop	※Only supported by the AW-UE150

Command name	Category	Command	Data value	Setting	Remarks
			99 [Data6] 01 - 50 - 99	Right Max. Speed [Data6] (MG) Down Max. Speed - Stop - UP Max. Speed	

Example of use)

• CROP OUT SEL settings: YL

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSI:16:1&res=1

[Response] AK-UB300 → PC

200 OK "OSI:16:1"

3.2.39. Intelligent

These commands configure the Intelligent settings and acquire the current setting values.

Table 3.2.39. Intelligent

Command name	Category	Command	Data value	Setting	Remarks
Intelligent control command	Control	OSI:21:[Data]	0 1 2	Off On Lock	※ Only supported by the AW-HR140.
	Response	OSI:21:[Data]			
Intelligent query command	Request	QSI:21	None		※ Only supported by the AW-HR140.
	Response	OSI:21:[Data]	0 1 2	Off On Lock	
Intelligent Mode control command	Control	OSI:22:[Data]	0 1	AE AE+ATW	※ Only supported by the AW-HR140.
	Response	OSI:22:[Data]			
Intelligent Mode query command	Request	QSI:22	None		※ Only supported by the AW-HR140.
	Response	OSI:22:[Data]	0 1	AE AE+ATW	
Intelligent ND Filter control command	Control	OSI:23:[Data]	0 1 2 3	Through 1/8 1/64 Auto	※ Only supported by the AW-HR140.
	Response	OSI:23:[Data]			
Intelligent ND Filter query command	Request	QSI:23	None		※ Only supported by the AW-HR140.
	Response	OSI:23:[Data]	0 1 2 3	Through 1/8 1/64 Auto	
Intelligent AGC Mode control command	Control	OSI:24:[Data]	0 1 2	Normal Sports SN	※ Only supported by the AW-HR140.
	Response	OSI:24:[Data]			
Intelligent AGC Mode query command	Request	QSI:24	None		※ Only supported by the AW-HR140.
	Response	OSI:24:[Data]	0 1 2	Normal Sports SN	

Example of use)

- Intelligent settings: On

[Control] PC → AW-HR140

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSI:21:1&res=1

[Response] AW-HR140 → PC

200 OK "OSI:21:1"

3.2.40. Shooting mode

These commands configure the shooting mode.

Table 3.2.40. Shooting mode

Command name	Category	Command	Data value	Setting	Remarks
Shooting Mode control command	Control	OSI:30:[Data]	0	NORMAL	※Only supported by the AK-UB300/AW-UE150
	Response	OSI:30:[Data]	1	HIGH SENS.	
Shooting Mode query command	Request	QSI:30	None		
	Response	OSI:30:[Data]	0 1	NORMAL HIGH SENS.	

Example of use)

•Shooting mode : HIGH SENS.

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSI:30:1&res=1

[Response] AW-UE150 → PC

200 OK "OSI:30:1"

3.2.41. Operation lock

These commands configure the Operation lock mode.

Table 3.2.41. Operation lock

Command name	Category	Command	Data value	Setting	Remarks
Operation Lock control command	Control	OSJ:3E:[Data]	xxxx(40 Charactors)	xxxx(40 Charactors)	※Only supported by the AW-UE150 •Only “a~z,A~Z, , (space)” can be used.
	Response	OSJ:3E:[Data]			
Release Operation Lock control command	Control	OSJ:3F	None		※Only supported by the AW-UE150
	Response	OSJ:3F			
Operation Lock Status query command	Request	QSJ:40	None		※Only supported by the AW-UE150
	Response	OSJ:40:[Data1]:[Data2]	[Data1] 0 1 [Data2] xxxx(40 Charactors)	[Data1] Unlock Lock [Data2] xxxx(40 Charactors)	

Example of use)

- Operation lock : On

[Control] PC → AW-UE150

[Response] AW-UE150 → PC

200 OK "OSJ:3E:0123456789012345678901234567890123456789"

3.2.42. External output

These commands configure the external output.

Table 3.2.42. External output

Command name	Category	Command	Data value	Setting	Remarks
External Output1 control command	Control	OSJ:41:[Data]	0	Off	※Only supported by the AW-UE150
	Response	OSJ:41:[Data]	1 2	R-Tally G-Tally	
External Output1 query command	Request	QSJ:41	None		※Only supported by the AW-UE150
	Response	OSJ:41:[Data]	0 1 2	Off R-Tally G-Tally	
External Output2 control command	Control	OSJ:42:[Data]	0	Off	※Only supported by the AW-UE150
	Response	OSJ:42:[Data]	1 2	R-Tally G-Tally	
External Output2 query command	Request	QSJ:42	None		※Only supported by the AW-UE150
	Response	OSJ:42:[Data]	0 1 2	Off R-Tally G-Tally	

Example of use)

- External output1 : R-Tally

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:41:1&res=1

[Response] AW-UE150 → PC

200 OK "OSJ:41:1"

3.2.43. Power on position

These commands configure the power on position.

Table 3.2.43. Power on position

Command name	Category	Command	Data value	Setting	Remarks
Power on position control command	Control	OSJ:45:[Data]	0	None	※Only supported by the AW-UE150
	Response	OSJ:45:[Data]	1 2 3	Standby Home Preset	
Power on position query command	Request	QSJ:45	None		※Only supported by the AW-UE150
	Response	OSJ:45:[Data]	0 1 2 3	None Standby Home Preset	
Power on preset number control command	Control	OSJ:46:[Data]	00 ~ 99	Preset001 - Preset100	※Only supported by the AW-UE150
	Response	OSJ:46:[Data]	00 ~ 99	Preset001 - Preset100	
Power on preset number query command	Request	QSJ:46	None		※Only supported by the AW-UE150
	Response	OSJ:46:[Data]	00 ~ 99	Preset001 - Preset100	

Example of use)

- Power on position : Standby

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:45:1&res=1

[Response] AW-UE150 → PC

200 OK "OSJ:45:1"

3.2.44. FLARE

These commands configure the Flare.

Table 3.2.44. FLARE

Command name	Category	Command	Data value	Setting	Remarks
FLARE SW control command	Control	OSA:11:[Data]	0	OFF	※Only supported by the AK-UB300
	Response	OSA:11:[Data]	1	ON	
FLARE SW query command	Request	QSA:11	None		
	Response	OSA:11:[Data]	0 1	OFF ON	
MASTER FLARE control command	Control	OSG:96:[Data]	1Ch ~ 80h ~ E4h	-100 ~ 0 ~ 100	※Only supported by the AK-UB300
	Response	OSG:96:[Data]			
MASTER FLARE query command	Request	QSG:96	None		
	Response	OSG:96:[Data]	1Ch ~ 80h ~ E4h	-100 ~ 0 ~ 100	
R FLARE control command	Control	OSD:35:[Data]	9Ch ~ FFh 00h 01h ~ 64h	-100 ~ -1 0 +1 ~ +100	※Only supported by the AK-UB300
	Response	OSD:35:[Data]			
R FLARE query command	Request	QSD:35	None		
	Response	OSD:35:[Data]	9Ch ~ FFh 00h 01h ~ 64h	-100 ~ -1 0 +1 ~ +100	
G FLARE control command	Control	OSD:36:[Data]	9Ch ~ FFh 00h 01h ~ 64h	-100 ~ -1 0 +1 ~ +100	※Only supported by the AK-UB300
	Response	OSD:36:[Data]			
G FLARE query command	Request	QSD:36	None		
	Response	OSD:36:[Data]	9Ch ~ FFh 00h 01h ~ 64h	-100 ~ -1 0 +1 ~ +100	

Command name	Category	Command	Data value	Setting	Remarks
B FLARE control command	Control	OSD:37:[Data]	9Ch ~ FFh 00h 01h ~ 64h	-100 ~ -1 0 +1 ~ +100	※Only supported by the AK-UB300
	Response	OSD:37:[Data]			
B FLARE query command	Request	OSD:37	None		
	Response	OSD:37:[Data]	9Ch ~ FFh 00h 01h ~ 64h	-100 ~ -1 0 +1 ~ +100	

Example of use)

•FLARE SW: On

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd= OSA:11:1&res=1

[Response] AK-UB300 → PC

200 OK "OSA:11:1"

3.2.45. Option Device Type

These commands configure the option device type.

Table 3.2.45. Option Device Type

Command name	Category	Command	Data	Setting	Remarks
Option Device Type query command	Request	QSI:2A	None		※Only supported by the AK-UB300
	Response	OSI:2A:[Data]	0 1 2 3	no option 4K default 12G option TICO option	

Example of use)

- Option Device Type: 4K default

[Request] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSI:2A&res=1

[Response] AK-UB300 → PC

200 OK "OSI:2A:1"

3.2.46. Tracking Data Output

These commands configure Tracking Data Output.

Table3.2.46 Tracking Data Output

Command name	Category	Command	Data	Setting	Remarks
Tracking Data Output (Serial) control command	Control	OSJ:54:[Data]	0 1	Off	※Only supported by the AW-UE150
	Response	OSJ:54:[Data]		On	
Tracking Data Output (Serial) query command	Request	QSJ:54	None		※Only supported by the AW-UE150
	Response	OSJ:54:[Data]	0 1	Off On	
Tracking Data Output (IP) control command	Control	OSJ:55:[Data]	0 1	Off	※Only supported by the AW-UE150
	Response	OSJ:55:[Data]		On	
Tracking Data Output (IP) query command	Request	QSJ:55	None		※Only supported by the AW-UE150
	Response	OSJ:55:[Data]	0 1	Off On	

Example of use)

- Tracking Data Output(Serial): On
 [Control] PC → AW-UE150
http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:54:1&res=1
 [Response] AW-UE150 → PC
 200 OK "OSJ:54:1"

3.2.47. V-Log

These commands configure V-Log.

Table 3.2.47 Tracking Data Output

Command name	Category	Command	Data	Setting	Remarks
Color Setting control command	Control	OSJ:56:[Data]	0 1	Normal V-Log	※Only supported by the AW-UE150
	Response	OSJ:56:[Data]			
Color Setting query command	Request	QSJ:56	None		
	Response	OSJ:56:[Data]	0 1	Normal V-Log	
12G SDI/Fiber Out V-Log Output Select control command	Control	OSJ:57:[Data]	0 1	V-Log V-709	※Only supported by the AW-UE150
	Response	OSJ:57:[Data]			
12G SDI/Fiber Out V-Log Output Select query command	Request	QSJ:57	None		
	Response	OSJ:57:[Data]	0 1	V-Log V-709	
3G SDI Out V-Log Output Select control command	Control	OSJ:58:[Data]	0 1	V-Log V-709	※Only supported by the AW-UE150
	Response	OSJ:58:[Data]			
3G SDI Out V-Log Output Select query command	Request	QSJ:58	None		
	Response	OSJ:58:[Data]	0 1	V-Log V-709	
MONI Out V-Log Output Select control command	Control	OSJ:59:[Data]	0 1	V-Log V-709	※Only supported by the AW-UE150
	Response	OSJ:59:[Data]			
MONI Out V-Log Output Select query command	Request	QSJ:59	None		
	Response	OSJ:59:[Data]	0 1	V-Log V-709	
HDMI Out V-Log Output Select control command	Control	OSJ:5A:[Data]	0 1	V-Log V-709	※Only supported by the AW-UE150
	Response	OSJ:5A:[Data]			
HDMI Out V-Log Output Select query command	Request	QSJ:5A	None		
	Response	OSJ:5A:[Data]	0 1	V-Log V-709	

Example of use)

- Color Setting : V-Log

[Control] PC → AW-UE150

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSJ:56:1&res=1

[Response] AW-UE150 → PC

200 OK "OSJ:56:1"

4. Camera information update notification

The following restrictions apply to camera operations that are performed using HTTP communication and that have been described in the previous chapters:

- A) Even when a camera setting is changed by one terminal, the other terminals will not know that the setting has been changed unless they send the query command to the camera.
- B) In the case of a preset playback, AWB/ABB execution or other control commands that take time to be processed, it is necessary to wait until the processing is completed for the response.

By sending information autonomously from the camera to the terminals, it is possible to do the following:

- A) When a camera setting is changed by one terminal, the other terminals are notified of the setting change immediately.
- B) With a control command that takes time to be processed, the HTTP response is returned as soon as the command has been received, and separate notification of the processing result is given as soon as the processing is completed.

These functions are referred to as the camera information update notification function.

This chapter uses the term “update notification” to refer to this function.

4.1. Procedure for receiving the update notifications

4.1.1. Procedure of start/end of the update notifications reception

An HTTP message is sent to the camera to start or stop the reception of the update notification from the camera.

At a time like this, the number of the TCP port on the terminal for receiving the update notification (having the update notification sent) is specified.

The ① update notification receive start steps and ② update notification receive end steps are each described below.

① Update notification receive start step

Example)

When reception is to be started with "192.168.0.10" used as the IP address of the camera

`http://192.168.0.10/cgi-bin/event?connect=start&my_port=31004&uid=0`

※`my_port` ... Number of the TCP port on the terminal (any port)

Given below is the sequence which is followed when receiving the update notifications is started.

【Update notification receive start sequence】

The update notification receive start command is sent from the terminal where the update notifications are to be received.

"204 No Content" is returned from the camera which has received the command.

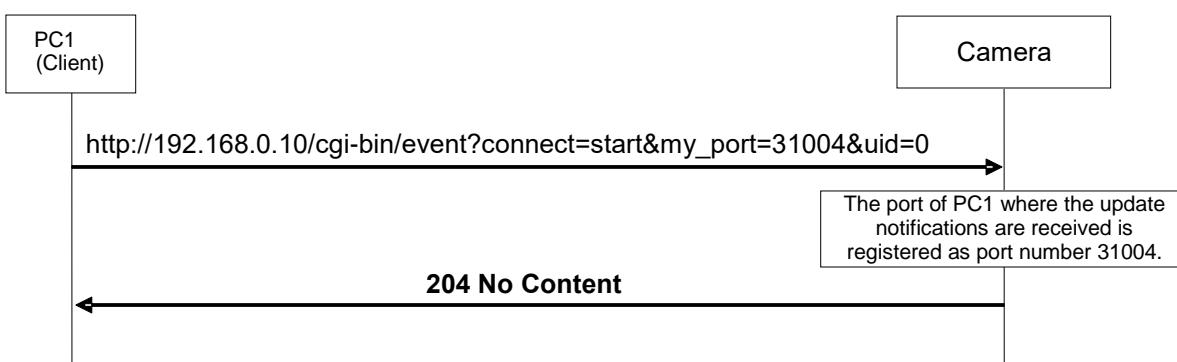


Fig.4-1 Update notification receive start sequence

【Caution】

Proceed with the update notification receive start step when communication has been cut off because the LAN cable has been disconnected, for example.

② Update notification receive end step

To close the application of the client, the update notification receive end step must be taken without fail.

Example)

When reception is to be ended with "192.168.0.10" used as the IP address of the camera

`http://192.168.0.10/cgi-bin/event?connect=stop&my_port=31004&uid=0`

※my_port ... Number of the TCP port on the terminal (fixed at 31004)

Given below is the sequence which is followed when receiving the update notifications is to be ended.

【Update notification receive end sequence】

The update notification receive end command is sent from the terminal which has received the update notifications.

"204 No Content" is returned from the camera which received the command.

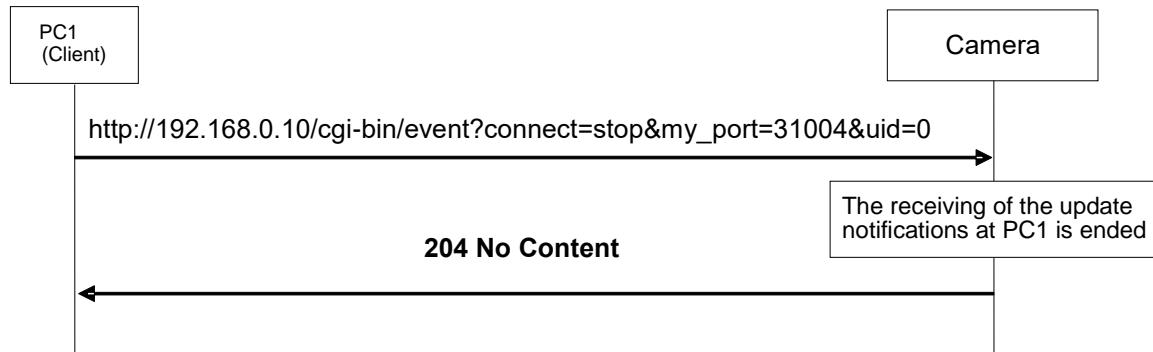


Fig.4-2 Update notification receive end sequence

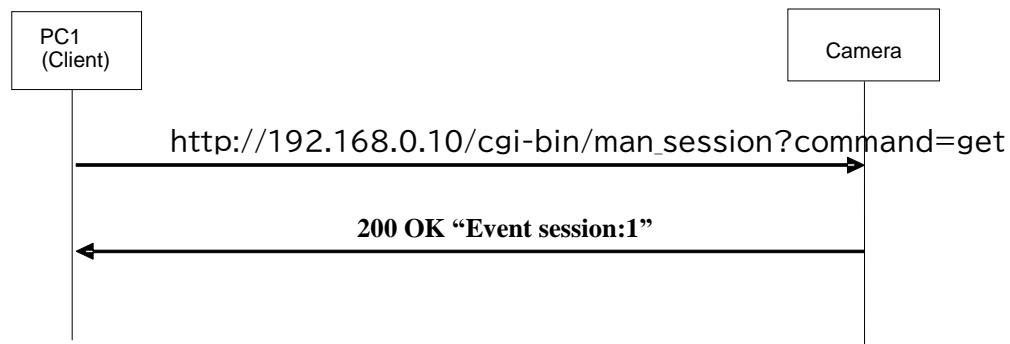
4.1.2. Registered number of update notifications

You can query the number of external devices (RP remote controller etc.) connected to the camera with the following command.

The number of connected device increases with the procedure to start receiving update notifications and decreases the procedure to start receiving update notifications. The number of connected device also decreases when it can not communicate with the device.

Request	Response
<code>/cgi-bin/man_session?command=get</code>	Event session:*(*: Registered number)

【sequence of request registered number of update notifications】



4.2. Data format for update notifications

The data received in the update notifications will be described next.

The update notification is given to the TCP port on the terminal whose number was specified using the update notification start command by TCP protocol communication.

A breakdown of the data received is given below.

【Receive data】

Reserve (22 bytes)	Size (2 bytes)	Reserve (4 bytes)	Update notification information (Variable length: Max. 504 bytes)	Reserve (24 bytes)
-----------------------	---------------------------	----------------------	--	-----------------------

Fig.4-3 Receive data format

The updated information is set in “Update notification information” of the receive data format.

The data received from the camera has a variable length.

The size of the update notification information is the value obtained by subtracting 8 bytes from the “Size” area setting.

- “Update notification information” data length = “Size” — 8 bytes

The updates of the camera are described in the update notification information.

The format used for the update notification information received from the camera is given below.

【Update notification information format】

[CR][LF][Command response format][CR][LF]

※ [CR]:0x0d, [LF]:0x0a

Example 1) Power: On

[CR][LF]**p1**[CR][LF]

Example 2) Color bar: On

[CR][LF]**DCB:1**[CR][LF]

4.3. Setting change sequence

Update notifications are sent when the settings or statuses of the camera have been changed.

Given below is an example of the update notification sequence.

It is assumed that the update notification start command has been sent to all the terminals in the sequence and that the terminals can receive the update notifications from the camera.

4.3.1. Changing the settings from a terminal

【Changing the settings from the local terminal】

When the settings of the camera have been changed from the local terminal (PC1), the changes are also posted by an update notification separately from the HTTP response to the command.

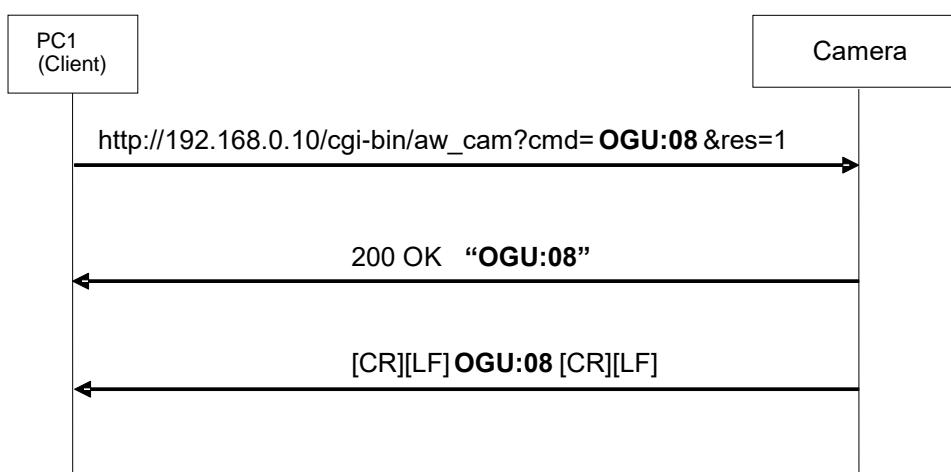


Fig.4-4 Changing the settings from the local terminal

【Changing the settings from another terminal】

When a camera setting has been changed from another terminal (PC2), the local terminal (PC1) is also notified of the change.

In addition to the HTTP response to the command, the other terminal (PC2) is notified of the change by an update notification as well.

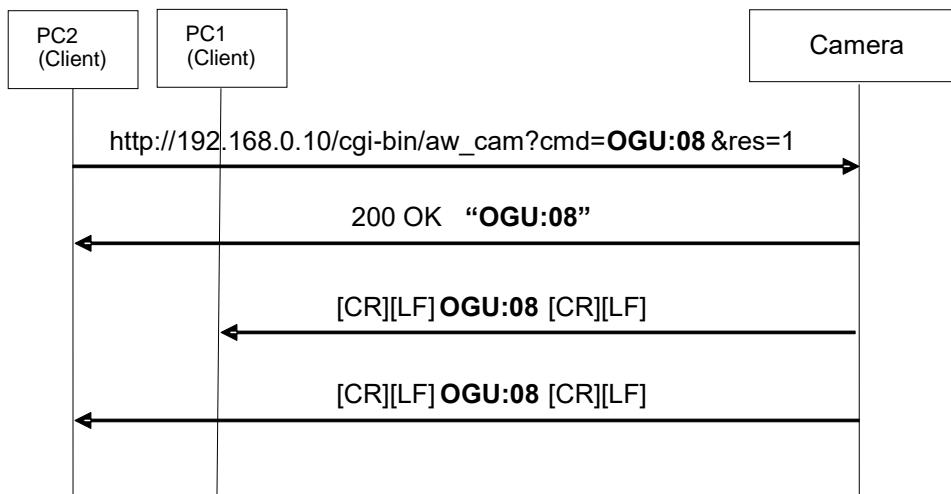


Fig.4-5 Changing the settings from another terminal

(Remarks)

When the camera receives the control command and its setting is changed, it gives an update notification.

(It does not give an update notification if a query command has been received.)

However, when any of the following commands have been received, the update notification is not given.

① OSD menu

Table 4-1

Command name	Command
OSD menu Off/On	control command
MENU switch On	control command
ITEM switch On	control command
YES switch On	control command
NO switch On	control command
RIGHT switch On	control command
LEFT switch On	control command

※The RIGHT/LEFT switch On control command is supported only by the AW-HE120.

② Pan, tilt, zoom, focus and iris operation commands

<Pan-tilt head control commands>

Table 4-2

Command name	Command
Pan/tilt	#APC[Data1][Data2]
	#P[Data]
	#T[Data]
	#PTS[Data1][Data2]
Zoom	#AXZ[Data]
	#Z[Data]
Focus	#AXF[Data]
	#F[Data]
Iris position	#I [Data]
	#AXI [Data]

<Camera control commands>

Table 4-3

Command name	Command
One-touch focus	OSE:69:[Data]
Contrast level (Picture level)	OSD:48:[Data]
Iris volume	ORV:[Data]

4.3.2. Setting value initialization

The contents of the table below are posted in succession by the update notifications when the settings have been initialized using the OSD menu of the camera or from the web screen. However, in the case of the AK-UB300, when the setting values are initialized from the web screen, the camera information is not changed so the update notification will not be sent. (The update notification will be sent during initialization from the OSD menu.)

Table 4-4-1 (In the case of the AW-HE50/AW-HE60)

Notification	Remarks
XSF	Scene file
ORS	Iris (Auto/Manual)
OSD:48	Contrast level
OSH	Shutter
OMS	Synchro scan
OGU	Gain
OSA:65	Frame mix
OSD:69	Maximum gain value
OSE:74	Maximum frame mix value
OCG	Chroma level
OAW	AWB (AWC) mode
ODT	Detail
OSA:B1	TOTAL DTL LEVEL HIGH ※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
OSA:30	TOTAL DTL LEVEL ※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
OSE:32	Flesh Tone Mode
OSE:31	Color matrix
OSD:3A	Digital noise reduction (DNR)
OTD	Pedestal
OSE:72	Gamma type
OSD:50	Gamma level
OSE:73	Backlight compensation
OSE:33	DRS
OHP	Horizontal sync phase
OSC	Subcarrier sync phase (coarse)
OSN	Subcarrier sync phase (fine)
OSE:20	Down-conversion mode
OSE:68	HDMI color component
iNS	Installation position
uPVS	Pan preset speed
OSE:71	Preset playback range
OSE:70	Digital zoom On/Off
swZ	Zoom position-linked pan/tilt speed adjustment On/Off
OAF	Focus Auto/Manual
OAZ	Auto focus On/Off during zooming
tAE	Tally input enable/disable
OSA:88	OSD Status
wLC	Wireless Control
OSE:75	OSD Off With TALLY
d6	Option switch
OSD:98:1	CHARACTER MIX (SDI/HDMI, COMP)
OSD:98:0	CHARACTER MIX (Browser/Video)

Table 4-4-2 (In the case of the AW-HE120)

Notification	Remarks
XSF	Scene file
iNS	Installation position
ORS	Iris (Auto/Manual)
sPF	Smart Picture Flip
OSD:48	Picture level
fDA	Flip Detect Angle
OSH	Shutter
uPVS	Pan preset speed
OMS	Synchro scan
sWZ	Zoom position-linked pan/tilt speed adjustment On/Off
OGU	Gain
wLC	Wireless Control
OSA:65	Frame mix
OSD:69	Maximum gain value
OSE:74	Maximum frame mix value
OCG	Chroma level
OAW	AWB (AWC) mode
ODT	Detail
OSE:31	Color matrix
OSD:3A	Digital noise reduction (DNR)
ORI	R GAIN
OBI	B GAIN
OTP	Pedestal
ORP	R PEDESTAL
OBP	B PEDESTAL
OSE:72	Gamma type
OSD:50	Gamma level
OSD:2F	Linear Matrix (R-G)
OSD:30	Linear Matrix (R-B)
OSD:31	Linear Matrix (G-R)
OSD:32	Linear Matrix (G-B)
OSD:33	Linear Matrix (B-R)
OSD:34	Linear Matrix (B-G)
OSD:0A	H Detail Level H
OSD:0E	V Detail Level H
OSD:12	H Detail Level L
OSD:16	V Detail Level L
OSD:1E	Detail Band
OSD:22	Noise Suppress
OSD:4B	FleshTone Noise Suppress
OSD:80	Color Correction (B_Mg GAIN/SATURATION)
OSD:81	Color Correction (B_Mg PHASE)
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)

Table 4-4-2 (In the case of the AW-HE120) (continued)

Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OFT	ND Filter
OSE:33	DRS
OAF	Focus Auto/Manual
OSE:7B	OSD Mix
OHP	Horizontal sync phase
ORV	Iris Mode (AUTO/MANUAL)
OSA:87	Format
OSA:88	OSD Status
OSE:20	Down-conversion mode
OSE:68	HDMI color component
OSE:70	Digital zoom On/Off
OSE:71	Preset playback range
OSE:75	OSD Off With TALLY
OSE:77	Frequency
OSE:7A	Maximum Digital Zoom
DCB	COLOR BAR/CAMERA
OAZ	Auto focus On/Off during zooming
DCS	Color Bars Setup
OSD:65	OUTPUT SELECT

Table 4-4-3 (In the case of the AW-HE130)

Notification	Remarks
XSF	Scene file
OSD:48	Picture Level
ORS	Iris Mode
OSH	Shutter Mode
OMS	Step/Synchro
OGU	Gain
OSD:69	AGC Max Gain
OSA:65	Frame Mix
OFT	ND Filter
d6	Day/Night
OSD:B0	Chroma Level
OAW	White Balance Mode
OSD:B1	Color Temperature
ORI	R Gain
OBI	B Gain
OTP	Pedestal
ORP	R Pedestal
OBP	B Pedestal
ODT	Detail
OSA:30	Master Detail
OSD:A1	V Detail Level
OSD:A2	Detail Band
OSD:22	Noise Suppress
OSD:A3	FleshTone NoiseSUP.
OSE:72	Gamma Type
OSA:6A	Gamma
OSE:33	DRS
OSA:2D	Knee Mode
OSA:20	MASTER KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSA:2E	White Clip
OSA:2A	White Clip Level
OSD:3A	DNR
OSE:31	Matrix Type
OSD:A4	Linear Matrix (R-G)
OSD:A5	Linear Matrix (R-B)
OSD:A6	Linear Matrix (G-R)
OSD:A7	Linear Matrix (G-B)
OSD:A8	Linear Matrix (B-R)
OSD:A9	Linear Matrix (B-G)
OSD:80	Color Correction (B_Mg GAIN/SATURATION)
OSD:81	Color Correction (B_Mg PHASE)
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)

Table 4-4-3 (In the case of the AW-HE130) (continued)

Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:9A	Color Correction (Mg_R_R GAIN/SATURATION)
OSD:9B	Color Correction (Mg_R_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OHP	Horizontal Phase
OSE:20	Down CONV. Mode
DCS	Color Bars Setup
iNS	Installation position
sPF	Smart Picture Flip
fDA	Flip Detect Angle
pST	Preset Speed Table
uPVS	Preset Speed
OSE:71	Preset Scope
pRF	Freeze During Preset
sWZ	Speed With Zoom POS.
OAF	Focus Mode
OAZ	Focus ADJ With PTZ.
OSE:70	Digital Zoom
OSE:7A	Max Digital Zoom
ODE	Digital Extender
OIS	OIS

Table 4-4-3 (In the case of the AW-HE130) (continued)

Notification	Remarks
tAE	Tally Enable
OSA:D3	Tally Brightness
wLC	Wireless Control
OSE:7B	OSD Mix
OSE:75	OSD Off With Tally
OSA:88	OSD Status
OSA:D0	Audio Enable
OSA:D1	Audio Input Volume
OSA:D2	Audio Plugin Power
OVP:01	Model Select
OSE:7C	Preset Digital Extender Enable
IMP	Status Display Lamp

Table 4-4-4 (In the case of the AW-HE40/AW-UE70/AW-HE42)

Notification	Remarks
XSF	Scene file
OSE:70	Digital Zoom
OSE:7A	Max Digital Zoom
OSD:B3	i.Zoom
ODE	Digital Extender
OSD:B8	Digital Extender Magnification *only AW-UE70/AW-HE42
OAF	Focus Mode
d1	Extender/AF Control
OAZ	Focus ADJ With PTZ.
ORS	Iris Mode
d3	Iris Auto/Manual
ORV	Iris Mode (AUTO/MANUAL)
OSH	Shutter Mode
OMS	Step/Synchro
OSD:BF	AutoShutterLimit *only AW-UE70/AW-HE42
OGU	Gain
OSD:69	AGC Max Gain
OSA:65	Frame Mix
OSE:74	Maximum frame mix value
OFT	ND Filter *only AW-UE70/AW-HE42
OCG	Chroma Level
OSD:48	Picture Level
OIS	OIS
OAW	White Balance Mode
OSD:B1	Color Temperature
OTD	Pedestal
ODT	Detail
OSA:30	Master Detail
OSA:B1	TOTAL DTL LEVEL HIGH
OSE:72	Gamma Type
OSD:50	Gamma Level
OSE:33	DRS
OSD:3A	DNR
d6	Day/Night
OSD:B2	Night Mode Sel
OSD:B7	NIGHT-DAY LEVEL
OSD:B4	HDR
OSE:31	Matrix Type
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)

Notification	Remarks
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OSD:AA	Color Correction (Cy_Cy_B GAIN/SATURATION)
OSD:AB	Color Correction (Cy_Cy_B PHASE)
OSD:AC	Color Correction (Cy_B_B GAIN/SATURATION)
OSD:AD	Color Correction (Cy_B_B PHASE)
OSD:C0	Color Correction (B_B_Mg GAIN/SATURATION)
OSD:C1	Color Correction (B_B_Mg PHASE)
OSD:C2	Color Correction (B_Mg_Mg GAIN/SATURATION)
OSD:C3	Color Correction (B_Mg_Mg PHASE)
OSD:C4	Color Correction (YI_YI_G GAIN/SATURATION)
OSD:C5	Color Correction (YI_YI_G PHASE)
OSD:C6	Color Correction (YI_G_G GAIN/SATURATION)
OSD:C7	Color Correction (YI_G_G PHASE)
OHP	H PHASE *only AW-UE70/AW-HE42
OSD:B9	Format_SDI *only AW-UE70/AW-HE42
DCB	COLOR BAR/CAMERA
OSD:BA	Color Bars Type *only AW-UE70/AW-HE42 or need AW-SFU01
OSD:BE	Bars Title *only AW-UE70/AW-HE42 or need AW-SFU01
OSA:D0	Audio Enable
OSA:D1	Audio Input Volume
OSA:D2	Audio Plugin Power
OSD:BB	Audio ALC *only AW-UE70/AW-HE42 or need AW-SFU01
OSD:BC	Audio Equalize *only AW-UE70/AW-HE42 or need AW-SFU01
sWZ	Speed With Zoom POS.
pST	Preset Speed Table
uPVS	Preset Speed
uTVS	Preset Speed
OSE:71	Preset Scope
pRF	Freeze During Preset
iNS	Installation position
OSA:88	OSD Status
OSE:75	OSD Off With Tally
wLC	Wireless Control
rID	Wireless Controller ID
rZL	IP image resolution
OVP:01	Model Select

Table 4-4-5 (In the case of the AK-UB300)

Notification	Remarks
OSA:87	Format
DCB	COLOR BAR/CAMERA
OSI:1D	Auto iris level
OFT	ND filter
XSF	Scene file
OSG:59	Shutter SW
OSG:5A	Shutter Mode
OSG:5D	Shutter Speed
OSA:65	Frame Mix
OGS	Gain select
OSA:50	LOW Gain
OSA:51	MID Gain
OSA:52	HIGH Gain
OSA:60	Super gain mode
OSG:39	R GAIN
OSG:3A	B GAIN
OSG:4A	Pedestal
OSG:4C	R PEDESTAL
OSG:4E	B PEDESTAL
OSG:A0	Color matrix
OSA:00	Matrix table
OSG:A5:N	Linear Matrix R-G(N)
OSG:A5:P	Linear Matrix R-G(P)
OSG:A6:N	Linear Matrix R-B(N)
OSG:A6:P	Linear Matrix R-B(P)
OSG:A7:N	Linear Matrix G-R(N)
OSG:A7:P	Linear Matrix G-R(P)
OSG:A8:N	Linear Matrix G-B(N)
OSG:A8:P	Linear Matrix G-B(P)
OSG:A9:N	Linear Matrix B-R(N)
OSG:A9:P	Linear Matrix B-R(P)
OSG:AA:N	Linear Matrix B-G(N)
OSG:AA:P	Linear Matrix B-G(P)
OSA:85	Color Correction
OSG:A4	Color correct table
OSD:86	Color Correction R GAIN SATURATION
OSD:87	Color Correction R PHASE
OSD:88	Color Correction R_YI GAIN SATURATION
OSD:89	Color Correction R_YI PHASE
OSD:8A	Color Correction YI GAIN SATURATION
OSD:8B	Color Correction YI PHASE
OSD:8C	Color Correction YI_G GAIN SATURATION
OSD:8D	Color Correction YI_G PHASE
OSD:8E	Color Correction G GAIN/ SATURATION

Table 4-4-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSD:8F	Color Correction G PHASE
OSD:90	Color Correction G_Cy GAIN SATURATION
OSD:91	Color Correction G_Cy PHASE
OSD:92	Color Correction Cy GAIN SATURATION
OSD:93	Color Correction Cy PHASE
OSD:94	Color Correction Cy_B GAIN SATURATION
OSD:95	Color Correction Cy_B PHASE
OSD:96	Color Correction B GAIN SATURATION
OSD:97	Color Correction B PHASE
OSD:80	Color Correction B_Mg GAIN SATURATION
OSD:81	Color Correction B_Mg PHASE
OSD:82	Color Correction Mg GAIN SATURATION
OSD:83	Color Correction Mg PHASE
OSD:84	Color Correction Mg_R GAIN SATURATION
OSD:85	Color Correction Mg_R PHASE
OSG:B0	Skin area SW
OSG:B1	Skin area table
OSG:B2	Skin area HUE
OSG:B3	Skin area TONE
OSG:93	Chroma Level SW
OSD:B0	Chroma Level
OSI:20	Color Temperature
ODT	Detail
OSA:30	TOTAL DTL LEVEL
OSA:31	H.DTL LEVEL
OSG:32	V.DTL LEVEL
OSG:30	PEAK FREQUENCY
OSG:35	V DETAIL FREQUENCY
OSD:22	NOISE SUPPRESS/CRISP
OSA:38	DETAIL (+)
OSA:39	DETAIL (-)
OSG:40	DETAIL +CLIP
OSG:41	DETAIL -CLIP
OSA:3B	DETAIL SOURCE
OSG:3F	KNEE APERTURE LEVEL
OSG:3E	LEVEL DEPENDENT SW
OSD:26	LEVEL DEPENDENT
OSA:40	SKIN TONE DETAIL
OSA:41	SKIN GET
OSG:42	MEMORY SELECT
OSG:44	H POSITION
OSG:45	V POSITION
OSA:49	SKIN TONE ZEBRA
OSG:47	ZEBRA EFFECT MEMORY

Table 4-4-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSG:48	SKIN TONE EFFECT MEMORY
OSG:49	SKIN TONE CRISP
OSA:45	SKIN TONE DTL I CENTER
OSA:46	SKIN TONE DTL I WIDTH
OSA:47	SKIN TONE DTL Q WIDTH
OSG:4F	SKIN TONE Q PHASE
OSD:3A	DNR
OSG:B5	DNR LEVEL
OSG:B6	HAZE REDUCTION
OSG:B7	HAZE REDUCTION LEVEL
OSG:CA	GEN-LOCK INPUT
OSG:CB	H PHASE-COARSE
OSG:CC	H PHASE-FINE
OSI:16	CROP OUT SEL
OSI:17	CROP ADJ SEL
OSI:1A	CROP MARKER SEL
OSI:1B	CROP H POSITION
OSI:1C	CROP V POSITION
OSE:7B	OSD Mix
OSA:88	OSD Status
ORS	IRIS AUTO/MANUAL
ORV	MANUAL IRIS VOLUME
OSD:48	IRIS OFFSET
OSA:84	MATRIX TABLE (LINEAR MATRIX)
OSI:32	Crop SDI Out Select
OSI:33	Crop IP Out Select
OSI:2C	HDR SW (MAIN)
OSI:2D	COLORIMETRY
OSI:2E	HDR SW (SDI1)
OSI:2F	HDR SW (IP)
OSA:0D	DRS SW
OSI:30	Shootong Mode
OSI:31	HDR SW (SDI2)
OSA:11	FLARE SW
OSG:96	MASTER FLARE
OSD:35	R FLARE
OSD:36	G FLARE
OSD:37	B FLARE
OSA:0A	GAMMA SW
OSG:86	GAMMA MODE SELECT
OSI:34	MASTER GAMMA

Table 4-4-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSI:35	R GAMMA
OSI:36	B GAMMA
OSA:0F	F-REC Black STR LVL
OSA:10	F-REC Dynamic LVL
OSA:21	V-REC Knee Point
OSA:25	V-REC Knee Slope
OSA:0B	BLACK GAMMA SW
OSA:07	MASTER BLACK GAMMA
OSA:08	R BLACK GAMMA
OSA:09	B BLACK GAMMA
OSA:2D	KNEE SW
OSA:20	MASTER KNEE POINT
OSA:22	R KNEE POINT
OSA:23	B KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSA:26	R KNEE SLOPE
OSA:27	B KNEE SLOPE
OSA:28	AUTO KNEE POINT
OSA:29	AUTO KNEE LEVEL
OSG:97	AUTO KNEE RESPONSE
OSI:39	HLG MODE
OSI:3A	HLG SDR CONVERT MODE
OSI:3B	HLG TYPE SELECT
OSI:3C	HLG BLACK GAMMA SW
OSI:3D	HLG MASTER BLACK GAMMA
OSI:3E	HLG R BLACK GAMMA
OSI:3F	HLG B BLACK GAMMA
OSI:40	HLG KNEE SW
OSI:41	HLG KNEE POINT
OSI:42	HLG KNEE SLOPE
OSI:43	HLG SDR CONVERT GAIN
OSI:44	HLG SDR CONVERT CLIP
ODE	Digital Extender

Table 4-4-6 (In the case of the AW-HR140)

Notification	Remarks
XSF	Scene file
OSD:48	Picture Level
ORS	Iris Mode
OSH	Shutter Mode
OMS	Step/Synchro
OGU	Gain
OSD:69	AGC Max Gain
OSA:65	Frame Mix
OFT	ND Filter
d6	Day/Night
OSD:B0	Chroma Level
OAW	White Balance Mode
OSD:B1	Color Temperature
ORI	R Gain
OBI	B Gain
OTP	Pedestal
ORP	R Pedestal
OBP	B Pedestal
ODT	Detail
OSA:30	Master Detail
OSD:A1	V Detail Level
OSD:A2	Detail Band
OSD:22	Noise Suppress
OSD:A3	FleshTone NoiseSUP.
OSE:72	Gamma Type
OSA:6A	Gamma
OSE:33	DRS
OSA:2D	Knee Mode
OSA:20	MASTER KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSA:2E	White Clip
OSA:2A	White Clip Level
OSD:3A	DNR
OSE:31	Matrix Type
OSD:A4	Linear Matrix (R-G)
OSD:A5	Linear Matrix (R-B)
OSD:A6	Linear Matrix (G-R)
OSD:A7	Linear Matrix (G-B)
OSD:A8	Linear Matrix (B-R)
OSD:A9	Linear Matrix (B-G)
OSD:80	Color Correction (B_Mg GAIN/SATURATION)
OSD:81	Color Correction (B_Mg PHASE)
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)

Table 4-4-6 (In the case of the AW-HR140) (continued)

Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:9A	Color Correction (Mg_R_R GAIN/SATURATION)
OSD:9B	Color Correction (Mg_R_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OHP	Horizontal Phase
iNS	Installation position
sPF	Smart Picture Flip
fDA	Flip Detect Angle
pST	Preset Speed Table
uPVS	Preset Speed
OSE:71	Preset Scope
pRF	Freeze During Preset
sWZ	Speed With Zoom POS.
OAF	Focus Mode
OAZ	Focus ADJ With PTZ.
OSE:70	Digital Zoom
OSE:7A	Max Digital Zoom
ODE	Digital Extender
OIS	OIS

Table 4-4-6 (In the case of the AW-HR140) (continued)

Notification	Remarks
OSE:7B	OSD Mix
OSE:75	OSD Off With Tally
OSA:88	OSD Status
OSA:D0	Audio Enable
OSA:D1	Audio Input Volume
OSA:D2	Audio Plugin Power
OVP:01	Model Select
OSG:B6	HAZE REDUCTION
OSG:B7	HAZE REDUCTION LEVEL
OSE:7C	Preset Digital Extender Enable
OSE:7D	Preset Zoom Mode
OSI:28	Super Gain
OSI:25	ATW Speed
OSI:26	ATW Width
OSI:21	Intelligent
OSI:22	Intelligent Mode
OSI:23	Intelligent ND Filter
OSI:24	Intelligent AGC Mode
OSI:29	3G SDI Out
OSA:D4	Audio Line Input Level
OSA:D5	Audio Output Volume
OSA:D6	Audio Head Room
OSA:D7	Audio Line CH Select
OSI:2B	DC Out
d7	Defroster Control
d8	Wiper Control
d9	Heater Control
fAN	FAN
wIP	Wiper
wAS	Washer
fS1	Fan Status1
fS2	Fan Status2
hS	Heater Status
dS	Defroster Status
wPT	Washer PT Position
wPR	Washer PT Position Reset

Table 4-4-7 (In the case of the AW-UE150)

Notification	Remarks
XSF	Scene File
OSD:48	Picture Level
ORS	Iris Mode
d3	Iris Mode
OSJ:01	Auto Iris Speed
OSJ:02	Auto Iris Window
OSJ:03	Shutter Mode
OSJ:06	Step VAL
OSJ:09	Synchro VAL
OSD:BF	ELC Limit (AutoShutterLimit)
OGU	Gain
OSI:28	Super Gain
OSD:69	AGC Max Gain
OSA:65	Fram Mix
OFT	ND Filter
d6	Day/Night
OAW	White Balance Mode
OSI:20	COLOR TEMPERATURE
OSG:39	R Gain
OSG:3A	B Gain
OSJ:0C	AWB Gain Offset
OSI:25	ATW Speed
OSJ:0D	ATW Target R
OSJ:0E	ATW Target B
OSD:B0	Chroma Level
OSJ:0B	Chroma Phase
OSJ:0F	Master Pedestal
ORP	R Pedestal
OSJ:10	R Pedestal
OBP	B Pedestal
OSJ:11	Pedestal Offset
ODT	Detail
OSA:30	Master Detail
OSJ:12	Detail Coring
OSD:A1	V Detail Level
OSD:A2	Detail Frequency
OSJ:13	Level Depend.
OSG:3F	Knee Ape. Level
OSA:38	Detail Gain(+)
OSA:39	Detail Gain(-)
OSA:40	Skin Detail
OSD:A3	Skin Detail Effect
OSJ:14	DownCon Detail
OSJ:15	DC. Master Detail
OSJ:16	DC. Detail Coring
OSJ:17	DC. V Detail Level
OSJ:18	DC. Detail Frequency

Notification	Remarks
OSJ:19	DC. Level Depend.
OSJ:1A	DC. Knee Ape Level
OSE:72	Gamma Mode
OSA:6A	Gamma
OSA:10	F-REC Dynamic LVL
OSA:0F	F-REC Black STR LVL
OSA:25	V-REC Knee Slope
OSA:21	V-REC Knee Point
OSA:07	MASTER BLACK GAMMA
OSJ:1B	B.Gamma Range
OSE:33	DRS
OSA:2D	Knee Mode
OSG:97	AUTO KNEE RESPONSE
OSA:20	MASTER KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSI:40	HLG KNEE SW
OSI:41	HLG KNEE POINT
OSI:42	HLG KNEE SLOPE
OSA:2E	White Clip
OSA:2A	White Clip Level
OSD:3A	DNR
OSE:31	MATRIX TYPE
OSD:A4	MATRIX(R-G)
OSD:A5	MATRIX(R-B)
OSD:A6	MATRIX(G-R)
OSD:A7	MATRIX(G-B)
OSD:A8	MATRIX(B-R)
OSD:A9	MATRIX(B-G)
OSD:80	B_Mg (SATURATION)
OSD:81	B_Mg (PHASE)
OSD:82	Mg (SATURATION)
OSD:83	Mg (PHASE)
OSD:84	Mg_R (SATURATION)
OSD:85	Mg_R (PHASE)
OSD:9A	Mg_R_R (SATURATION)
OSD:9B	Mg_R_R (PHASE)
OSD:86	R (SATURATION)
OSD:87	R (PHASE)
OSD:9C	R_R_YI (SATURATION)
OSD:9D	R_R_YI (PHASE)
OSD:88	R_YI (SATURATION)
OSD:89	R_YI (PHASE)
OSD:9E	R_YI_YI (SATURATION)
OSD:9F	R_YI_YI (PHASE)
OSD:8A	YI (SATURATION)
OSD:8B	YI (PHASE)
OSJ:1C	YI_YI_G Saturation
OSJ:1D	YI_YI_G Phase

Notification	Remarks
OSD:8C	YI_G (SATURATION)
OSD:8D	YI_G (PHASE)
OSD:8E	G (SATURATION)
OSD:8F	G (PHASE)
OSD:90	G_Cy (SATURATION)
OSD:91	G_Cy (PHASE)
OSD:92	Cy (SATURATION)
OSD:93	Cy (PHASE)
OSD:94	Cy_B (Saturation)
OSD:95	Cy_B (PHASE)
OSD:96	B (SATURATION)
OSD:97	B (PHASE)
OAF	FOCUS MODE
d1	Extender/AF Control
OSE:70	Digital Zoom Disable/Enable
OSD:B3	i.zoom
OSE:7A	MAXIMUM DIGITAL ZOOM
ODE	Digital Extender Off/On ※Notify for previous version compatibility
OSJ:4E	Digital Extender
OIS	OIS
ORV	MANUAL IRIS VOLUME
OSE:76	D-Zoom Magnification
OSI:30	Shooting Mode
OSJ:56	Color Setting
OHP	Horizontal Phase
wLC	Wireless Control
fAN	FAN
fA2	FAN2
rZL	Resolution Control
OSJ:54	Tracking Data Output (Serial)
OSJ:55	Tracking Data Output (IP)
OSJ:1E	12G SDI/Fiber Out Format
OSJ:20	3G SDI Out
OSJ:57	12G SDI/Fiber Out V-Log Output Select
OSJ:21	3G SDI Out Format
OSJ:22	HDR Output Select
OSI:29	3G SDI Out
OSJ:58	3G SDI Out V-Log Output Select
OSJ:23	MONI Out Format
OSJ:24	HDR Output Select
OSJ:59	MONI Out V-Log Output Select
OSJ:25	HDMI Out Format
OSJ:26	HDR Output Select
OSE:68	Video Sampling (HDMI COLOR)
OSJ:5A	HDMI Out V-Log Output Select
DCB	Bar
OSD:BA	Color Bar Type
OSJ:27	Tone

Notification	Remarks
OSA:D0	Audio
OSA:D1	Input Type
OSA:D5	Volume Level
OSA:D2	Plugin Power
OSE:7B	OSD Mix
OSE:75	OSD Off With R-Tally
OSA:88	OSD Status
tAE	Tally Enable
OSA:D3	Tally Brightness
IMP	Status Lamp
OSJ:41	Output1
OSJ:42	Output2
OSJ:2E	UHD Crop
OSI:32	Crop SDI Out Select
OSI:16	Crop Out
OSI:1A	Crop Marker
OSI:17	Crop Adjust.
OSJ:2F	Crop H POS. (YL)
OSJ:30	Crop V POS. (YL)
OSJ:31	Crop H POS. (G)
OSJ:32	Crop V POS. (G)
OSJ:33	Crop H POS. (MG)
OSJ:34	Crop V POS. (MG)
iNS	Install Position
sPF	Smart Picture Flip
fDA	Flip Detect Angle
OSJ:2D	PT. Speed Mode
sWZ	Speed With Zoom POS.
OAZ	Focus ADJ With PTZ
OSJ:45	Power On Position
OSJ:46	Power On Preset Number
OSJ:29	Preset Speed Unit
pST	Preset Speed Table
uTVS	Preset Speed
uPVS	Preset Speed
OSE:71	Preset Scope
OSE:7C	Preset D-Extender
OSJ:2A	Preset Crop
OSJ:2B	Preset Thumbnail Update
OSJ:2C	Preset Name
OSE:7D	Preset Zoom Mode
pRF	Freeze During Preset
OSJ:5B	Preset Iris
OSJ:4F	Adaptive Matrix
OSJ:1F	12G SDI/Fiber Out HDR Output Select
OSI:33	Crop IP Out Select
OSJ:4A	AWB COLOR TEMPERATURE
OSJ:4B	AWB R Gain

Notification	Remarks
OSJ:4C	AWB B Gain
OSJ:4D	AWB G Axis

The sequence during setting value initialization is as follows.

【Setting value initialization sequence】

The items whose settings have been changed by initialization are notified in succession when the settings are initialized using the OSD menu of the camera or from the web screen.

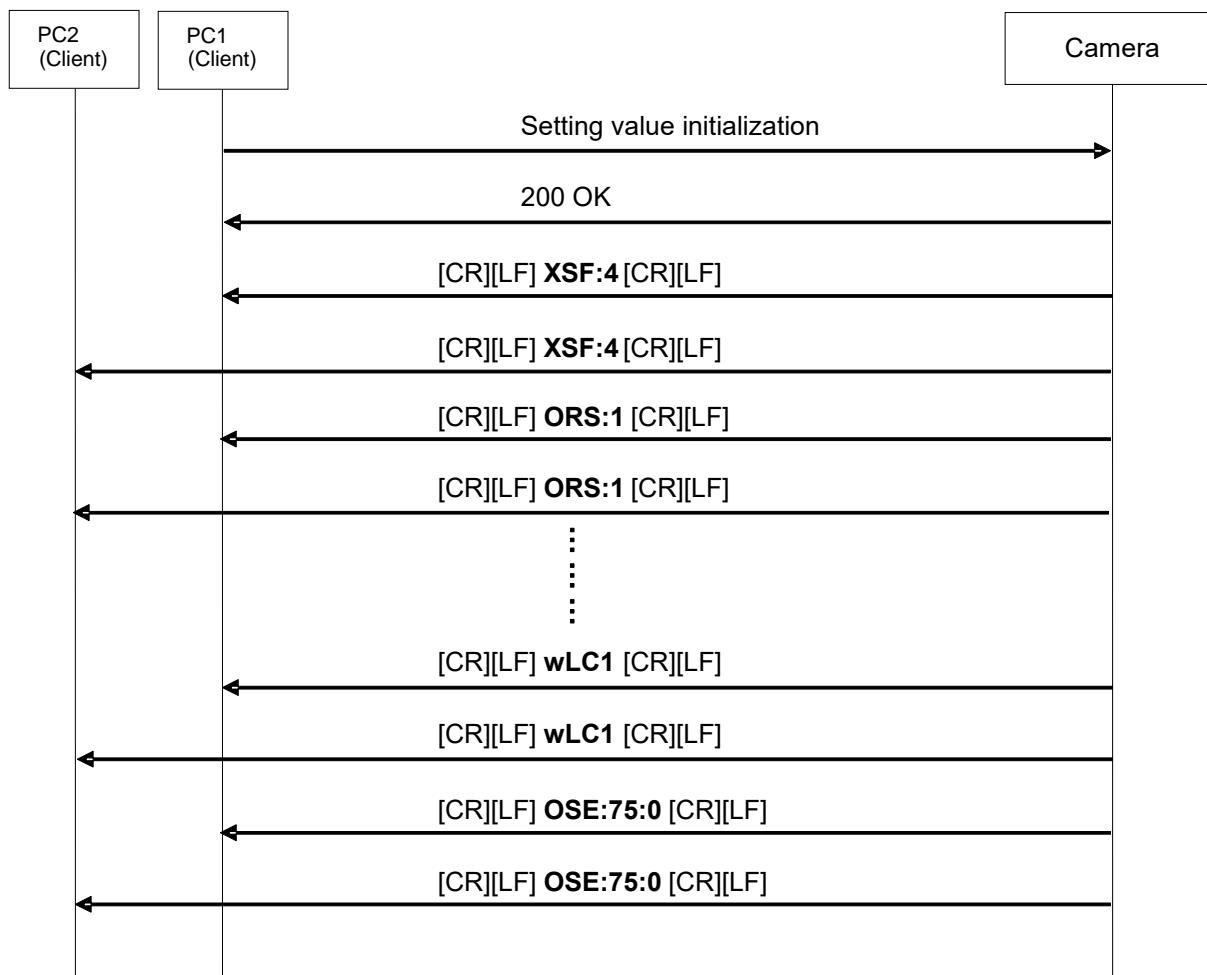


Fig.4-6 Setting value initialization

4.3.3. Scene file selection

The contents of the table below are posted in succession by the update notifications when scene files have been switched.

Table 4-5-1 (In the case of the AW-HE50/AW-HE60)

Notification	Remarks
XSF	Scene file
ORS	Iris (Auto/Manual)
OSD:48	Contrast level
OSH	Shutter
OMS	Synchro scan
OGU	Gain
OSA:65	Frame mix
OSD:69	Maximum gain value
OSE:74	Maximum frame mix value
OCG	Chroma level
OAW	AWB (AWC) mode
ODT	Detail
OSA:B1	TOTAL DTL LEVEL HIGH ※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
OSA:30	TOTAL DTL LEVEL ※Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
OSE:32	Flesh Tone Mode
OSE:31	Color matrix
OSD:3A	Digital noise reduction (DNR)
ORG	R GAIN ※The AW-HE50 is supported by Ver.2 or a later version.
OBG	B GAIN ※The AW-HE50 is supported by Ver.2 or a later version.
OTD	Pedestal
OSE:72	Gamma type
OSD:50	Gamma level
OSE:73	Backlight compensation
OSE:33	DRS
d6	Option switch ※Only supported by the AW-HE60.

Table 4-5-2 (In the case of the AW-HE120)

Notification	Remarks
XSF	Scene file
ORS	Iris (Auto/Manual)
OSD:48	Picture level
OSH	Shutter
OMS	Synchro scan
OGU	Gain
OSA:65	Frame mix
OSD:69	Maximum gain value
OSE:74	Maximum frame mix value
OCG	Chroma level
OAW	AWB (AWC) mode
ODT	Detail
OSE:31	Color matrix
OSD:3A	Digital noise reduction (DNR)
ORI	R GAIN
OBI	B GAIN
OTP	Pedestal
ORP	R PEDESTAL
OBP	B PEDESTAL
OSE:72	Gamma type
OSD:50	Gamma level
OSD:2F	Linear Matrix (R-G)
OSD:30	Linear Matrix (R-B)
OSD:31	Linear Matrix (G-R)
OSD:32	Linear Matrix (G-B)
OSD:33	Linear Matrix (B-R)
OSD:34	Linear Matrix (B-G)
OSD:0A	H Detail Level H
OSD:0E	V Detail Level H
OSD:12	H Detail Level L
OSD:16	V Detail Level L
OSD:1E	Detail Band
OSD:22	Noise Suppress
OSD:4B	FleshTone Noise Suppress
OSD:80	Color Correction (B_Mg GAIN/SATURATION)
OSD:81	Color Correction (B_Mg PHASE)
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)

Table 4-5-2 (In the case of the AW-HE120) (continued)

Notification	Remarks
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OFT	ND Filter
OSE:33	DRS
OAF	Focus Auto/Manual
OSE:7B	OSD Mix
OHP	Horizontal Phase
ORV	Iris Mode (AUTO/MANUAL)
OSA:87	Format
OSA:88	OSD Status
OSE:20	DownCONV.Mode
OSE:68	HDMI COLOR
OSE:70	DIGITAL ZOOM ENABLE
OSE:71	PRESET SCOPE
OSE:75	OSD Off With Tally
OSE:77	Frequency
OSE:7A	Maximum Digital Zoom
DCB	COLOR BAR/CAMERA
OAZ	Focus ADJ with PTZ
DCS	Color Bars Setup
OSD:65	OUTPUT SELECT

Table 4-5-3 (In the case of the AW-HE130)

Notification	Remarks
XSF	Scene file
OSD:48	Picture Level
ORS	Iris Mode
OSH	Shutter Mode
OMS	Step/Synchro
OGU	Gain
OSD:69	AGC Max Gain
OSA:65	Frame Mix
OFT	ND Filter
d6	Day/Night
OSD:B0	Chroma Level
OAW	White Balance Mode
OSD:B1	Color Temperature
ORI	R Gain
OBI	B Gain
OTP	Pedestal
ORP	R Pedestal
OBP	B Pedestal
ODT	Detail
OSA:30	Master Detail
OSD:A1	V Detail Level
OSD:A2	Detail Band
OSD:22	Noise Suppress
OSD:A3	FleshTone NoiseSUP.
OSE:72	Gamma Type
OSA:6A	Gamma
OSE:33	DRS
OSA:2D	Knee Mode
OSA:20	MASTER KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSA:2E	White Clip
OSA:2A	White Clip Level
OSD:3A	DNR
OSE:31	Matrix Type
OSD:A4	Linear Matrix (R-G)
OSD:A5	Linear Matrix (R-B)
OSD:A6	Linear Matrix (G-R)
OSD:A7	Linear Matrix (G-B)
OSD:A8	Linear Matrix (B-R)
OSD:A9	Linear Matrix (B-G)
OSD:80	Color Correction (B_Mg GAIN/SATURATION)
OSD:81	Color Correction (B_Mg PHASE)
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)

Table 4-5-3 (In the case of the AW-HE130) (continued)

Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:9A	Color Correction (Mg_R_R GAIN/SATURATION)
OSD:9B	Color Correction (Mg_R_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OSE:7C	Preset Digital Extender Enable
IMP	Status Display Lamp

Table 4-5-4 (In the case of the AW-HE40/AW-UE70/AW-HE42)

Notification	Remarks
XSF	Scene file
ORS	Iris Mode
d3	Iris Auto/Manual
OSH	Shutter Mode
OMS	Step/Synchro
OSD:BF	AutoShutterLimit
OGU	Gain
OSD:69	AGC Max Gain
OSA:65	Frame Mix
OSE:74	Maximum frame mix value
OFT	ND Filter
OCG	Chroma Level
OSD:48	Picture Level
OSE:73	BACK LIGHT COMPENSATION
OAW	White Balance Mode
OSD:B1	Color Temperature
OTD	Pedestal
ODT	Detail
OSA:30	Master Detail
OSA:B1	TOTAL DTL LEVEL HIGH
OSE:32	SOFT SKIN
OSE:72	Gamma Type
OSD:50	Gamma Level
OSE:33	DRS
OSD:3A	DNR
d6	Day/Night
OSD:B2	Night Mode Sel
OSD:B7	NIGHT-DAY LEVEL
OSD:B4	HDR
OSE:31	Matrix Type
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OSD:AA	Color Correction (Cy_Cy_B GAIN/SATURATION)
OSD:AB	Color Correction (Cy_Cy_B PHASE)
OSD:AC	Color Correction (Cy_B_B GAIN/SATURATION)

Notification	Remarks
OSD:AD	Color Correction (Cy_B_B PHASE)
OSD:C0	Color Correction (B_B_Mg GAIN/SATURATION)
OSD:C1	Color Correction (B_B_Mg PHASE)
OSD:C2	Color Correction (B_Mg_Mg GAIN/SATURATION)
OSD:C3	Color Correction (B_Mg_Mg PHASE)
OSD:C4	Color Correction (YI_YI_G GAIN/SATURATION)
OSD:C5	Color Correction (YI_YI_G PHASE)
OSD:C6	Color Correction (YI_G_G GAIN/SATURATION)
OSD:C7	Color Correction (YI_G_G PHASE)

Table 4-5-5 (In the case of the AK-UB300)

Notification	Remarks
OFT	ND filter
XSF	Scene file
OSG:59	Shutter SW
OSG:5A	Shutter Mode
OSG:5D	Shutter Speed
OSA:65	Frame mix
OGS	Gain select
OSA:50	LOW Gain
OSA:51	MID Gain
OSA:52	HIGH Gain
OSA:60	Super gain mode
OSG:39	R GAIN
OSG:3A	B GAIN
OSG:4A	Pedestal
OSG:4C	R PEDESTAL
OSG:4E	B PEDESTAL
OSG:A0	Color Matrix
OSA:00	Matrix Table
OSG:A5:N	Linear Matrix R-G(N)
OSG:A5:P	Linear Matrix R-G(P)
OSG:A6:N	Linear Matrix R-B(N)
OSG:A6:P	Linear Matrix R-B(P)
OSG:A7:N	Linear Matrix G-R(N)
OSG:A7:P	Linear Matrix G-R(P)
OSG:A8:N	Linear Matrix G-B(N)
OSG:A8:P	Linear Matrix G-B(P)
OSG:A9:N	Linear Matrix B-R(N)
OSG:A9:P	Linear Matrix B-R(P)
OSG:AA:N	Linear Matrix B-G(N)
OSG:AA:P	Linear Matrix B-G(P)
OSA:85	Color Correction
OSG:A4	Color correct table
OSD:86	Color Correction R GAIN SATURATION
OSD:87	Color Correction R PHASE
OSD:88	Color Correction R_YI GAIN SATURATION
OSD:89	Color Correction R_YI PHASE
OSD:8A	Color Correction YI GAIN SATURATION
OSD:8B	Color Correction YI PHASE
OSD:8C	Color Correction YI_G GAIN SATURATION
OSD:8D	Color Correction YI_G PHASE
OSD:8E	Color Correction G GAIN/ SATURATION
OSD:8F	Color Correction G PHASE
OSD:90	Color Correction G_Cy GAIN SATURATION
OSD:91	Color Correction G_Cy PHASE

Table 4-5-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSD:92	Color Correction Cy GAIN SATURATION
OSD:93	Color Correction Cy PHASE
OSD:94	Color Correction Cy_B GAIN SATURATION
OSD:95	Color Correction Cy_B PHASE
OSD:96	Color Correction B GAIN SATURATION
OSD:97	Color Correction B PHASE
OSD:80	Color Correction B_Mg GAIN SATURATION
OSD:81	Color Correction B_Mg PHASE
OSD:82	Color Correction Mg GAIN SATURATION
OSD:83	Color Correction Mg PHASE
OSD:84	Color Correction Mg_R GAIN SATURATION
OSD:85	Color Correction Mg_R PHASE
OSG:B0	Skin area SW
OSG:B1	Skin area table
OSG:B2	Skin area HUE
OSG:B3	Skin area TONE
OSG:93	Chroma Level SW
OSD:B0	Chroma Level
OSI:20	Color Temperature
ODT	Detail
OSA:30	TOTAL DTL LEVEL
OSA:31	H.DTL LEVEL
OSG:32	V.DTL LEVEL
OSG:30	PEAK FREQUENCY
OSG:35	V DETAIL FREQUENCY
OSD:22	NOISE SUPPRESS/CRISP
OSA:38	DETAIL (+)
OSA:39	DETAIL (-)
OSG:40	DETAIL +CLIP
OSG:41	DETAIL -CLIP
OSA:3B	DETAIL SOURCE
OSG:3F	KNEE APERTURE LEVEL
OSG:3E	LEVEL DEPENDENT SW
OSD:26	LEVEL DEPENDENT
OSA:40	SKIN TONE DETAIL
OSA:41	SKIN GET
OSG:42	MEMORY SELECT
OSG:44	H POSITION
OSG:45	V POSITION
OSA:49	SKIN TONE ZEBRA
OSG:47	ZEBRA EFFECT MEMORY
OSG:48	SKIN TONE EFFECT MEMORY
OSG:49	SKIN TONE CRISP
OSA:45	SKIN TONE DTL I CENTER

Table 4-5-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSA:46	SKIN TONE DTL I WIDTH
OSA:47	SKIN TONE DTL Q WIDTH
OSG:4F	SKIN TONE Q PHASE
OSD:3A	DNR
OSG:B5	DNR LEVEL
OSG:B6	HAZE REDUCTION
OSG:B7	HAZE REDUCTION LEVEL
OSE:7B	OSD Mix
OSA:88	OSD Status
ODE	Digital Extender
OSA:11	FLARE SW
OSA:0A	GAMMA SW
OSA:0B	BLACK GAMMA SW
OSA:2D	Knee Mode
OSA:0D	DRS SW
OSG:96	MASTER FLARE
OSD:35	R FLARE
OSD:36	G FLARE
OSD:37	B FLARE
OSG:86	GAMMA MODE SELECT
OSI:34	MASTER GAMMA
OSI:35	R GAMMA
OSI:36	B GAMMA
OSA:0F	F-REC Black STR LVL
OSA:10	F-REC Dynamic LVL
OSA:21	V-REC Knee Point
OSA:25	V-REC Knee Slope
OSA:07	MASTER BLACK GAMMA
OSA:08	R BLACK GAMMA
OSA:09	B BLACK GAMMA
OSA:22	R KNEE POINT
OSA:23	B KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSA:26	R KNEE SLOPE
OSA:27	B KNEE SLOPE
OSA:28	AUTO KNEE POINT
OSA:29	AUTO KNEE LEVEL
OSG:97	AUTO KNEE RESPONSE
OSD:22	CRISP
OSA:3B	DETAIL SOURCE
OSG:3F	KNEE APERTURE LEVEL
OSG:3E	LEVEL DEPENDENT SWITCH
OSD:26	LEVEL DEPENDENT

Table 4-5-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSA:40	SKIN TONE DETAIL
OSA:41	SKIN GET
OSG:A0	MATRIX
OSA:84	LINEAR MATRIX
OSA:85	COLOR CORRECT
OSI:39	HLG MODE
OSI:3A	HLG SDR CONVERT MODE
OSI:3B	HLG TYPE SELECT
OSI:3C	HLG BLACK GAMMA SW
OSI:3D	HLG MASTER BLACK GAMMA
OSI:3E	HLG R BLACK GAMMA
OSI:3F	HLG B BLACK GAMMA
OSI:40	HLG KNEE SW
OSI:41	HLG KNEE POINT
OSI:42	HLG KNEE SLOPE
OSI:43	HLG SDR CONVERT GAIN
OSI:44	HLG SDR CONVERT CLIP

Table 4-5-6 (In the case of the AW-HR140)

Notification	Remarks
XSF	Scene file
OSD:48	Picture Level
ORS	Iris Mode
OSH	Shutter Mode
OMS	Step/Synchro
OGU	Gain
OSD:69	AGC Max Gain
OSA:65	Frame Mix
OFT	ND Filter
d6	Day/Night
OSD:B0	Chroma Level
OAW	White Balance Mode
OSD:B1	Color Temperature
ORI	R Gain
OBI	B Gain
OTP	Pedestal
ORP	R Pedestal
OBP	B Pedestal
ODT	Detail
OSA:30	Master Detail
OSD:A1	V Detail Level
OSD:A2	Detail Band
OSD:22	Noise Suppress
OSD:A3	FleshTone NoiseSUP.
OSE:72	Gamma Type
OSA:6A	Gamma
OSE:33	DRS
OSA:2D	Knee Mode
OSA:20	MASTER KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSA:2E	White Clip
OSA:2A	White Clip Level
OSD:3A	DNR
OSE:31	Matrix Type
OSD:A4	Linear Matrix (R-G)
OSD:A5	Linear Matrix (R-B)
OSD:A6	Linear Matrix (G-R)
OSD:A7	Linear Matrix (G-B)
OSD:A8	Linear Matrix (B-R)
OSD:A9	Linear Matrix (B-G)
OSD:80	Color Correction (B_Mg GAIN/SATURATION)
OSD:81	Color Correction (B_Mg PHASE)
OSD:82	Color Correction (Mg GAIN/SATURATION)
OSD:83	Color Correction (Mg PHASE)

Table 4-5-6 (In the case of the AW-HR140) (continued)

Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:9A	Color Correction (Mg_R_R GAIN/SATURATION)
OSD:9B	Color Correction (Mg_R_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OSG:B6	HAZE REDUCTION
OSG:B7	HAZE REDUCTION LEVEL
OSE:7C	Preset Digital Extender Enable
OSE:7D	Preset Zoom Mode
OSI:28	Super Gain
OSI:25	ATW Speed
OSI:26	ATW Width
OSI:21	Intelligent
OSI:22	Intelligent Mode
OSI:23	Intelligent ND Filter
OSI:24	Intelligent AGC Mode
OSI:29	3G SDI Out
OSA:D4	Audio Line Input Level
OSA:D5	Audio Output Volume
OSA:D6	Audio Head Room
OSA:D7	Audio Line CH Select
OSI:2B	DC Out
d7	Defroster Control
d8	Wiper Control
d9	Heater Control
fAN	FAN

Notification	Remarks
wIP	Wiper
wAS	Washer
fS1	Fan Status1
fS2	Fan Status2
hS	Heater Status
dS	Defroster Status
wPT	Washer PT Position
wPR	Washer PT Position Reset

Table 4-5-7 (In the case of the AW-UE150)

Notification	Remarks
XSF	Scene File
OSD:48	Picture Level
ORS	Iris Mode
d3	Iris Mode
OSJ:01	Auto Iris Speed
OSJ:02	Auto Iris Window
OSJ:03	Shutter Mode
OSJ:06	Step VAL
OSJ:09	Synchro VAL
OSD:BF	ELC Limit (AutoShutterLimit)
OGU	Gain
OSI:28	Super Gain
OSD:69	AGC Max Gain
OSA:65	Fram Mix
OFT	ND Filter
d6	Day/Night
OAW	White Balance Mode
OSI:20	COLOR TEMPERATURE
OSG:39	R Gain
OSG:3A	B Gain
OSJ:0C	AWB Gain Offset
OSI:25	ATW Speed
OSJ:0D	ATW Target R
OSJ:0E	ATW Target B
OSD:B0	Chroma Level
OSJ:0B	Chroma Phase
OSJ:0F	Master Pedestal
ORP	R Pedestal
OSJ:10	R Pedestal
OBP	B Pedestal
OSJ:11	Pedestal Offset
ODT	Detail
OSA:30	Master Detail
OSJ:12	Detail Coring
OSD:A1	V Detail Level

Notification	Remarks
OSD:A2	Detail Frequency
OSJ:13	Level Depend.
OSG:3F	Knee Ape. Level
OSA:38	Detail Gain(+)
OSA:39	Detail Gain(-)
OSA:40	Skin Detail
OSD:A3	Skin Detail Effect
OSJ:14	DownCon Detail
OSJ:15	DC. Master Detail
OSJ:16	DC. Detail Coring
OSJ:17	DC. V Detail Level
OSJ:18	DC. Detail Frequency
OSJ:19	DC. Level Depend.
OSJ:1A	DC. Knee Ape Level
OSE:72	Gamma Mode
OSA:6A	Gamma
OSA:10	F-REC Dynamic LVL
OSA:0F	F-REC Black STR LVL
OSA:25	V-REC Knee Slope
OSA:21	V-REC Knee Point
OSA:07	MASTER BLACK GAMMA
OSJ:1B	B.Gamma Range
OSE:33	DRS
OSA:2D	Knee Mode
OSG:97	AUTO KNEE RESPONSE
OSA:20	MASTER KNEE POINT
OSA:24	MASTER KNEE SLOPE
OSI:40	HLG KNEE SW
OSI:41	HLG KNEE POINT
OSI:42	HLG KNEE SLOPE
OSA:2E	White Clip
OSA:2A	White Clip Level
OSD:3A	DNR
OSE:31	MATRIX TYPE
OSD:A4	MATRIX(R-G)
OSD:A5	MATRIX(R-B)
OSD:A6	MATRIX(G-R)
OSD:A7	MATRIX(G-B)
OSD:A8	MATRIX(B-R)
OSD:A9	MATRIX(B-G)
OSD:80	B_Mg (SATURATION)
OSD:81	B_Mg (PHASE)
OSD:82	Mg (SATURATION)
OSD:83	Mg (PHASE)
OSD:84	Mg_R (SATURATION)
OSD:85	Mg_R (PHASE)
OSD:9A	Mg_R_R (SATURATION)
OSD:9B	Mg_R_R (PHASE)

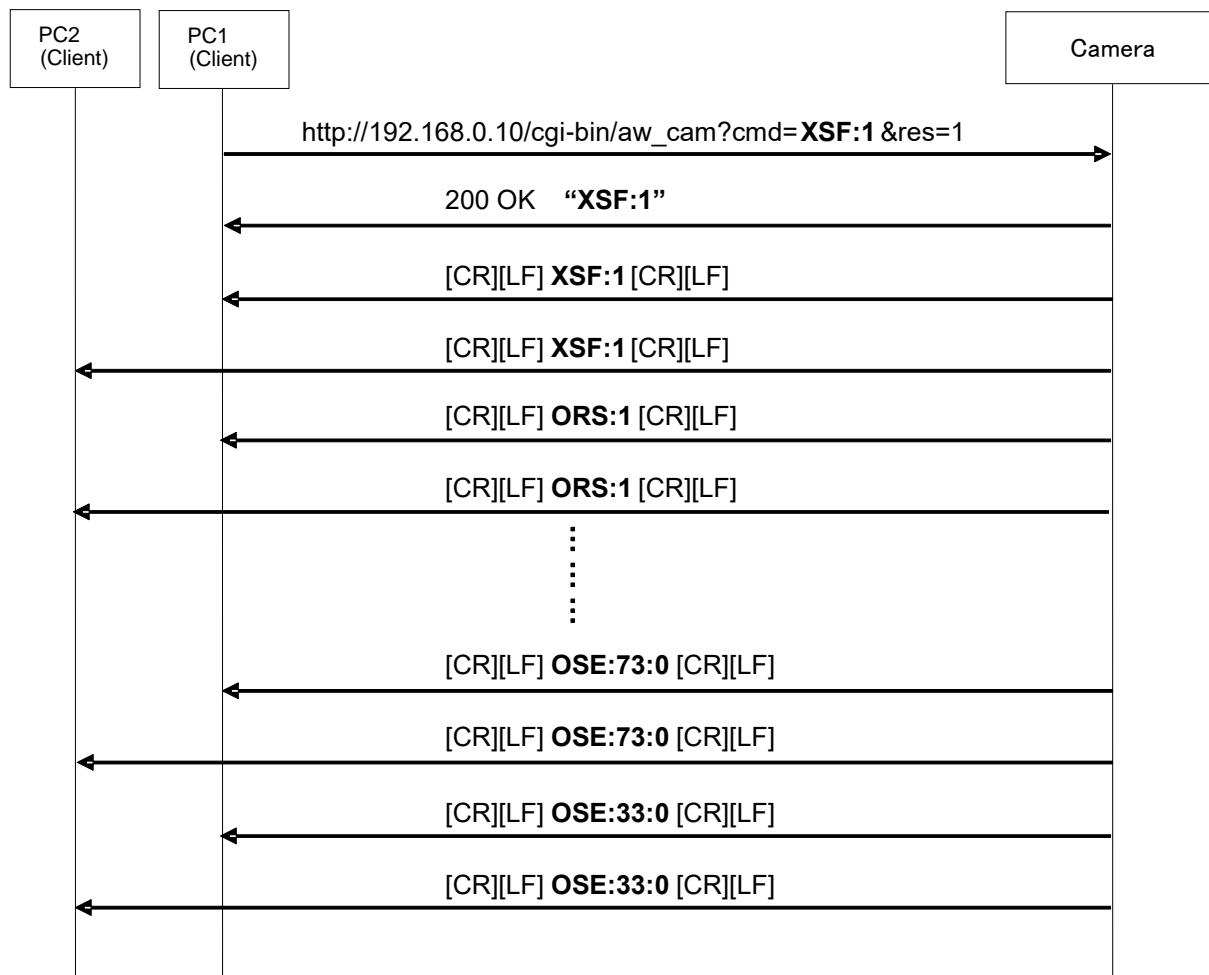
Notification	Remarks
OSD:86	R (SATURATION)
OSD:87	R (PHASE)
OSD:9C	R_R_YI (SATURATION)
OSD:9D	R_R_YI (PHASE)
OSD:88	R_YI (SATURATION)
OSD:89	R_YI (PHASE)
OSD:9E	R_YI_YI (SATURATION)
OSD:9F	R_YI_YI (PHASE)
OSD:8A	YI (SATURATION)
OSD:8B	YI (PHASE)
OSJ:1C	YI_YI_G Saturation
OSJ:1D	YI_YI_G Phase
OSD:8C	YI_G (SATURATION)
OSD:8D	YI_G (PHASE)
OSD:8E	G (SATURATION)
OSD:8F	G (PHASE)
OSD:90	G_Cy (SATURATION)
OSD:91	G_Cy (PHASE)
OSD:92	Cy (SATURATION)
OSD:93	Cy (PHASE)
OSD:94	Cy_B (Saturation)
OSD:95	Cy_B (PHASE)
OSD:96	B (SATURATION)
OSD:97	B (PHASE)
OSJ:4F	Adaptive Matrix
OSJ:4A	AWB COLOR TEMPERATURE
OSJ:4B	AWB R Gain
OSJ:4C	AWB B Gain
OSJ:4D	AWB G Axis

Given below is the sequence which is followed when scene files are selected.

【Scene file selection sequence】

The sequence below is followed if the scene file is changed to “Manual1”.

When “XSF:1” is returned in the response to the scene selection command and the scene file change is completed, the settings changed by the change in the scene file are posted in sequence by update notifications.



※The backlight compensation response (OSE:73:[Data]) is not supported by the AW-HE120.

Fig.4-7 Scene file selection

Described below are sequences which differ from the ones described in the previous pages.

4.4. Special sequences

Update notifications are sometimes sent at times other than when the settings or statuses of the camera have been changed.

Some cases are presented below.

It is assumed that the update notification start command has been sent to all the terminals in the sequence and that the terminals can receive the update notifications from the camera.

4.4.1. Version information notification

The version information is posted in 60-second cycles. (Version information notifications are not supported for the AK-UB300.)

The information posted is given below.

Table 4-6

Notification	Version information
qSV3V***.*****	qSV3V01.00L.002

Given below is the sequence which is followed when the version information is received.

【Sequence when the version information is received】

The camera sends the version information in 60-second cycles, and this information is received by terminals PC1 and PC2.

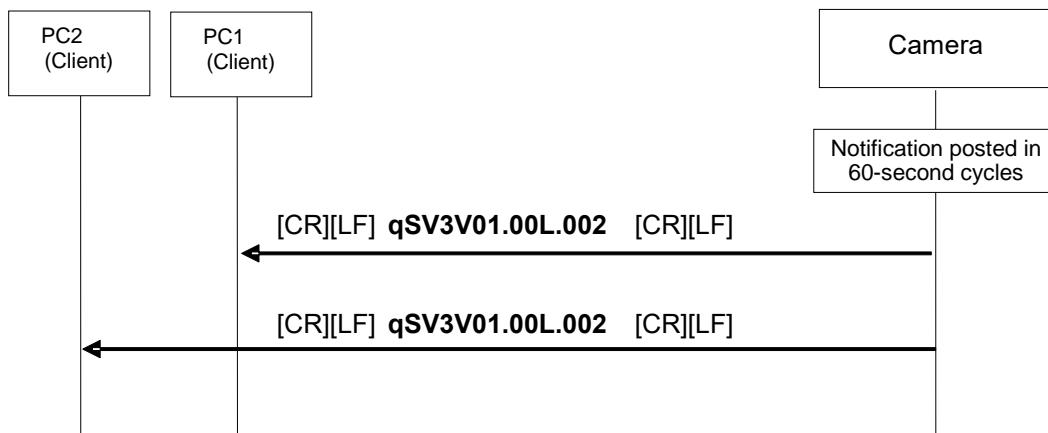


Fig.4-8 Sequence when the version information is received

4.4.2. Error information

In cases where the camera has detected error information, the error information is posted in 30-second cycles. (Error information notifications are not supported for the AK-UB300.)

When operation has been restored from an error condition, [Error Code 00:Normal] is posted only once.

If the error has not been detected, the error information is not posted.

Given below is the information which is posted.

Table 4-7

Notification	Error Code
rER[Error Code]	In the case of the AW-HE50/AW-HE60 00h: Normal 03h: Motor Driver Error 04h: Pan Sensor Error 05h: Tilt Sensor Error 06h: Controller RX Over run Error 07h: Controller RX Framing Error 08h: Network RX Over run Error 09h: Network RX Framing Error 17h: Controller RX Command Buffer Overflow 19h: Network RX Command Buffer Overflow 21h: System Error 22h: Spec Limit Over 23h: FPGA Config Error 24h: Network communication Error 25h: Lens Initialize Error 30h: Lvds_Adjustment_NG 31h: Bar_Signal_Check_NG 32h: H_Sync_Check_NG 33h: HDMI_Check_NG
	In the case of the AW-HE120/AW-HE130 00h: Normal 01h:- 02h:- 03h: Motor Driver Error 04h: Pan Sensor Error 05h: Tilt Sensor Error 06h: Controller RX Over run Error 07h: Controller RX Framing Error 08h: Network RX Over run Error 09h: Network RX Framing Error 0Ah:- 0Bh:- 17h: Controller RX Command Buffer Overflow 19h: Network RX Command Buffer Overflow 21h: System Error 22h: Spec Limit Over 24h: Network communication Error 25h: CAMERA communication Error 26h: CAMERA RX Over run Error 27h: CAMERA RX Framing Error 28h: CAMERA RX Command Buffer Overflow

Notification	Error Code
	<p>In the case of the AW-HR140</p> <p>00h:Normal 01h:- 02h:- 03h:Motor Driver Error 04h:Pan Sensor Error 05h:Tilt Sensor Error 06h:Controller RX Over run Error 07h:Controller RX Framing Error 08h:Network RX Over run Error 09h:Network RX Framing Error 0Ah:- 0Bh:- 17h:Controller RX Command Buffer Overflow 19h:Network RX Command Buffer Overflow 21h:System Error 22h:Spec Limit Over 24h:Network communication Error 25h:CAMERA communication Error 26h:CAMERA RX Over run Error 27h:CAMERA RX Framing Error 28h:CAMERA RX Command Buffer Overflow 31h:Fan1 Error 32h:Fan2 Error 33h:High Temp 36h:Low Temp 39h:Wiper Error 40h:Temp Sensor Error 50h:MR Level Error 51h:GYRO Initial Error 52h:MR Offset Error 53h:Origin Offset Error</p>
	<p>In the case of the AW-HE40/AW-UE70/AW-HE42</p> <p>00h:Normal(No Error) 03h:Motor Driver Error 04h:Pan Sensor Error 05h:Tilt Sensor Error 06h:IF/FPGA UART Over run Error 07h:IF/FPGA UART Framing Error 08h:IF/NET UART Over run Error 09h:IF/NET UART Framing Error 17h:IF/FPGA UART Buffer Overflow 19h:IF/NET UART Buffer Overflow 21h:System Error(IF/SERVO Error) 22h:PT Limit Over 24h:NET Life-monitoring Error 25h:BE Life-monitoring Error 26h:IF/BE UART Buffer Overflow 27h:IF/BE UART Framing Error 28h:IF/BE UART Buffer Overflow 29h:CAM Life-monitoring Error</p>

Notification	Error Code
	In the case of the AW-UE150 00h Normal 03h Motor Driver Error 04h Pan Sensor Error 05h Tilt Sensor Error 06h Controller RX Over run Error 07h Controller RX Framing Error 08h Network RX Over run Error 09h Network RX Framing Error 17h Controller RX Command Buffer Overflow 19h Network RX Command Buffer Overflow 21h System Error 22h Spec Limit Over 23h FPGA Config Error 24h NET Life-monitoring Error 25h BE Life-monitoring Error 26h IF/BE UART Buffer Overflow 27h IF/BE UART Framing Error 28h IF/BE UART Buffer Overflow 29h CAM Life-monitoring Error 31h Fan1 error 32h Fan2 error 33h High Temp 36h Low Temp 40h Temp Sensor Error 41h Lens Initialize Error 42h PT. Initialize Error 50h MR Level Error 52h MR Offset Error 53h Origin Offset Error 54h Angle MR Sensor Error 55h PT. Gear Error 56h Motor Disconnect Error

Given below is the sequence which is followed when error information is received.

【Error information receive sequence】

When the camera detects an error, it sends the error information to the terminals, and terminals PC1 and PC2 receive this information.

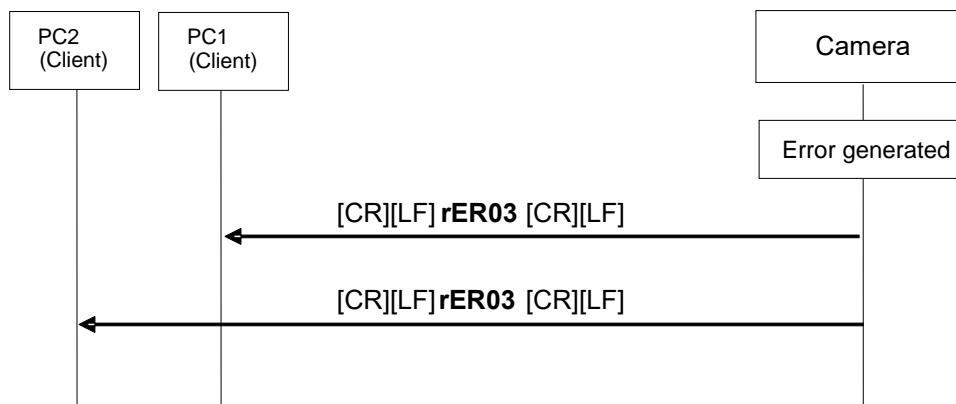


Fig.4-9 Sequence when error information is received

4.4.3. LPI information (lens information)

Notification is sent in a 300ms cycle when “On: Information is posted” has been set for the lens information notification On/Off control command in “3.1.6. Lens information notification” and a change has been made in the LPI information (lens information). (LPI information notifications are not supported for the AK-UB300.)

The information posted is given below.

Table 4-8

Notification	Lens information
IPI [ZZZ] [FFF] [III]	ZZZZoom position FFFFocus position IIIIris position

Given below is the sequence which is followed when changes in the LPI (lens) information are received.

【Sequence when LPI information (lens information) is changed】

When the camera detects changes in the LPI (lens) information, the changed LPI (lens) information is sent to the terminals, and terminals PC1 and PC2 receive this information.

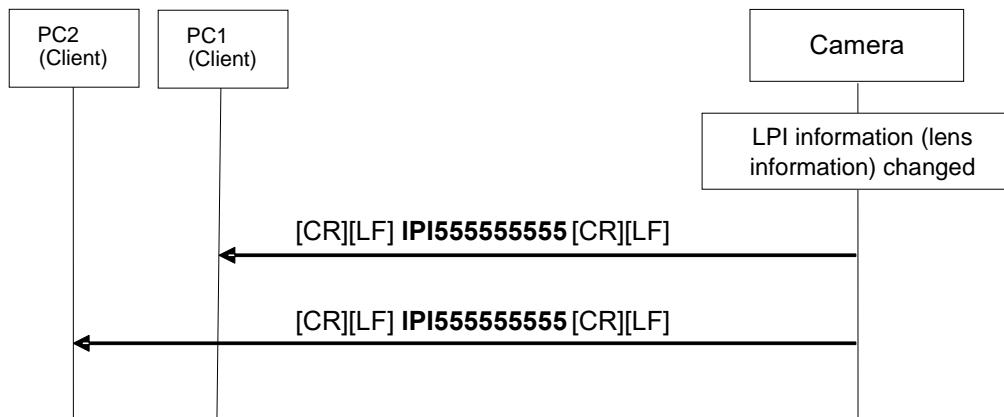


Fig.4-10 Sequence when LPI information is changed

4.4.4. Preset playback

This command sends the preset playback completion notification as an update notification when preset playback in the camera has been completed. (Preset playback is not supported for the AK-UB300.)

The table below gives the notification details.

Table 4-9

Notification	Remarks
q[numeral]	Number of the preset which was played back

Given below is the sequence which is followed when presets are played back.

【Preset playback sequence】

This is the sequence in which preset number 08 is played back.

As soon as the preset playback command is received, “s07” is returned as the HTTP response, and as soon as the playback is completed after this, “q07” is posted separately as the update notification.

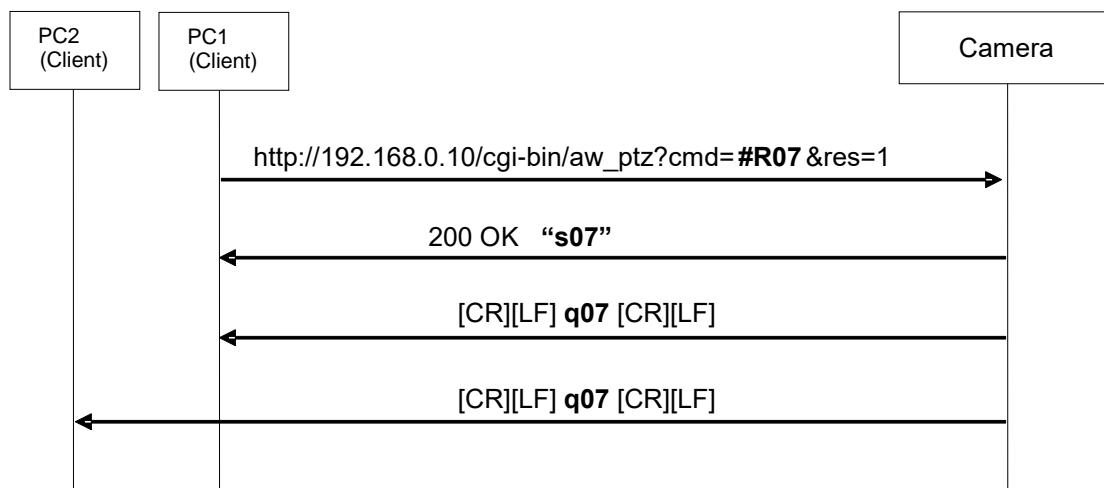


Fig.4-11 Preset playback

4.4.5. AWB/ABB execution

This command sends the execution results as an update notification when execution of AWB/ABB has been completed by the camera.

The information posted is given below.

Table 4-10 AWB result

Notification	Remarks
OWS	AWB execution successful
ORI:096	R Gain (only when AWB is successfully executed) ※1 * Notified with the AW-HE120/AW-HE130/AW-HR140
OBI:096	B Gain (only when AWB is successfully executed) ※1 * Notified with the AW-HE120/AW-HE130/AW-HR140
ORG:1E	R Gain (only when AWB is successfully executed) ※1 * Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60.
OBG:1E	B Gain (only when AWB is successfully executed) ※1 * Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60.
OSG:39:800	R Gain (only when AWB is successfully executed) * Notified by AW-UE150
OSG:3A:800	B Gain (only when AWB is successfully executed) * Notified by AW-UE150
ER3:OWS	AWB execution failed
ER2:OWS	AWB execution failed (busy status)

※1: The R gain and B gain update notifications are supported by Ver.2 or a later version for the AW-HE50.

Table 4-11 ABB result

Notification	Remarks
OAS	ABB execution successful
ORP:096	R Pedestal (only when ABB is successfully executed) ※2
OBP:096	B Pedestal (only when ABB is successfully executed) ※2
OSJ:10:096	G Pedestal (only when ABB is successfully executed) * Notified by AW-UE150
ER3:OAS	ABB execution failed ※2
ER2:OAS	ABB execution failed (busy status) ※2

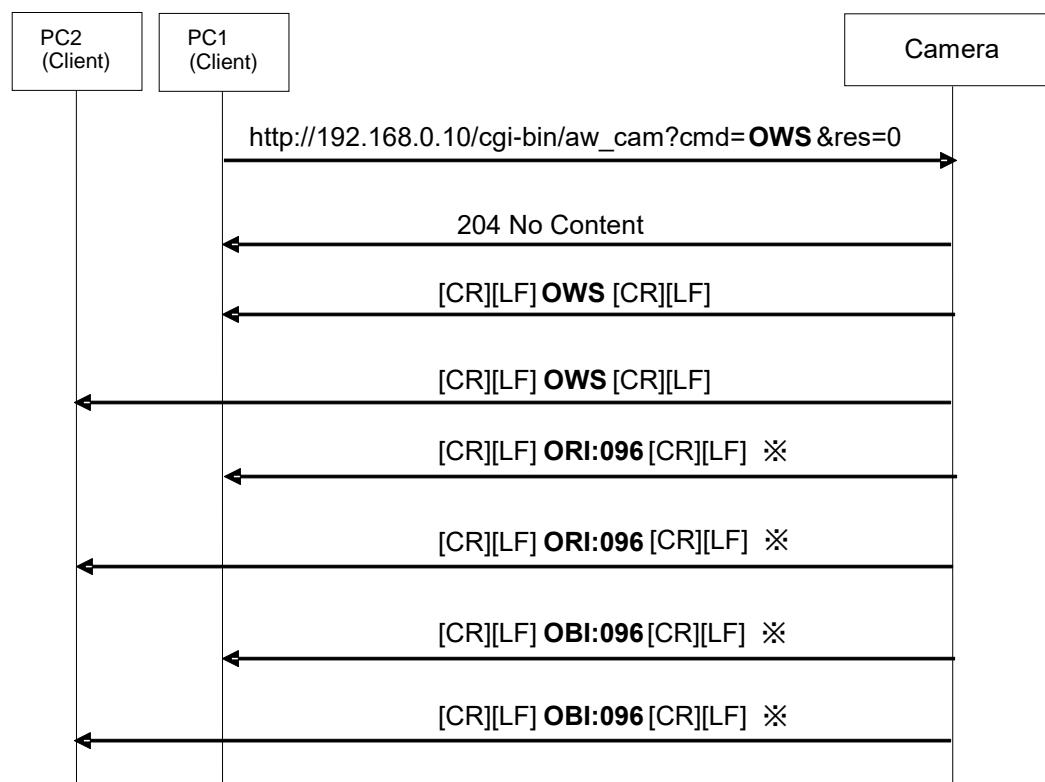
※2: With the AW-HE50 or the AW-HE60, the HTTP response is always given immediately for OAS, and no update notification is sent.

Given below is an example of the sequence which is followed when AWB is executed.

【AWB execution sequence】

As soon as the AWB execution command is received, “204 No Content” is returned as the HTTP response, and as soon as the AWB execution is completed, “OWS” is posted separately as the update notification.

For details on what happens if AWB execution has failed, refer to “6. Error return”.



- ※ The R gain and B gain update notifications are supported by Ver.2 or a later version for the AW-HE50.
- ※ In AW-HE50 Ver.2 or subsequent versions or in AW-HE60, if AWB A or AWB B is set as the AWB mode after switching, ORG or OBG is posted instead of ORI or OBI.

Fig.4-12 AWB execution

4.4.6. AWB Mode switching

The contents of the table below are posted in succession by update notifications when the AWB Mode setting has been switched.

Table 4-12

Notification	Remarks	
OAW	AWB Mode	
ORI	R Gain	※Only supported by the AW-HE120/AW-HE130/AW-HR140.
OBI	B Gain	※Only supported by the AW-HE120/AW-HE130/AW-HR140.
ORG	R Gain	※Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60/AW-HE40/AW-UE70/AW-HE42.
OBG	B Gain	※Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60/AW-HE40/AW-UE70/AW-HE42.
OSG:39	R Gain	※Notified by AW-UE150.
OSG:3A	B Gain	※Notified by AW-UE150.

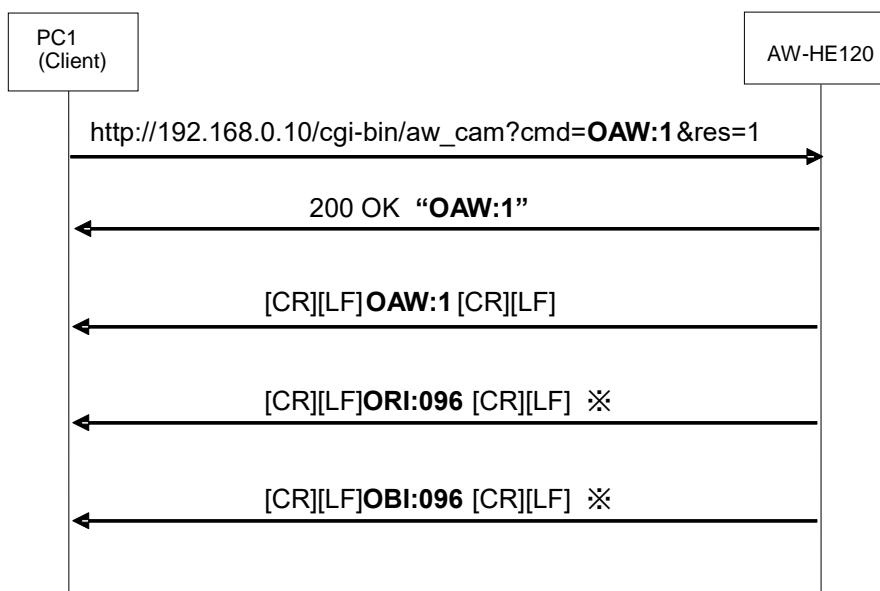
※ The R gain and B gain are notified only when the AWB mode after switching has been set to AWB A or AWB B.

The sequence below is followed when the AWB Mode is switched.

【AWB Mode switching sequence】

This sequence is followed if AWB Mode is switched to "AWB A".

As the response to the AWB Mode switching command, "OAW:1" is returned, and the R gain and B gain settings stored for the AWB Mode after switching are posted in sequence by update notifications.



- ※ The R gain and B gain update notifications are supported by Ver.2 or a later version for the AW-HE50.
- ※ In AW-HE50 Ver.2 or subsequent versions or in AW-HE60/AW-HE40/AW-UE70/AW-HE42, if AWB A or AWB B is set as the AWB mode after switching, ORG or OBG is posted instead of ORI or OBI.

Fig.4-13 AWB Mode switching

5. Camera information batch acquisition

All the information of the camera can be acquired together as a batch.

[Command format]

[Send]

`http://[IP Address]/live/camdata.html`

※**IP Address** IP address of camera at connection destination

[Receive]

200 OK “**Camera information**”

Where:

※**Camera information** Camera information listed in Table 5-1.
[CR] and [LF] are used as the delimiters of the information.

[Sequence]

The camera information is acquired from PC1. “200 OK [Camera information]” is returned as the response from the camera.

Given below is the command sequence.

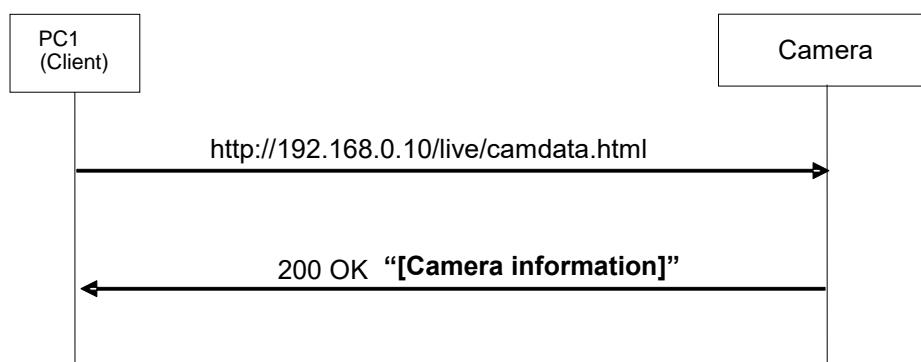


Fig.5-1 Camera information batch acquisition sequence

Table 5-1

Camera information	Command	[data] section
PowerOn/Off status ※ Not supported by the AK-UB300.	p[data]	0 : PowerOff 1 : PowerOn
Model Name	OID:[data]	In the case of the AW-HE50 AW-HE50 (fixed) In the case of the AW-HE60 AW-HE60 (fixed) In the case of the AW-HE120 AW-HE120 (fixed) In the case of the AW-HE130 AW-HE130 (fixed) In the case of the AW-HE40 AW-HE40 (fixed) In the case of the AW-UE70 AW-UE70 (fixed) In the case of the AW-HE42 AW-HE42 (fixed) In the case of the AK-UB300 AK-UB300 (fixed) In the case of the AW-HR140 AW-HR140 (fixed) In the case of the AW-UE150 AW-UE150 (fixed)
CGI send interval	---	In the case of the AW-HE130/AW-HR140 CGI_TIME:130 (fixed) In the case of the AK-UB300 CGI_TIME:70 (fixed) In the case of other models CGI_TIME:0 (fixed) ※The AW-HE50 is supported by Ver.2 or a later version.
Format	OSA:87: 0x[data]	In the case of the AW-HE50 1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i 7h: 1080/29.97PsF 8h: 1080/25PsF Bh: 480/59.94i Dh: 576/50i 10h: 1080/59.94p 11h: 1080/50p In the case of the AW-HE60 1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i 7h: 1080/29.97PsF 8h: 1080/25PsF Bh: 480/59.94i Dh: 576/50i 10h: 1080/59.94p 11h: 1080/50p

Camera information	Command	[data] section
		12h: 480/59.94p 13h: 576/50p
		In the case of the AW-HE120
		1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i Bh:480/59.94i Dh:576/50i 10h: 1080/59.94p 11h: 1080/50p 12h: 480/59.94p 13h: 576/50p
		In the case of the AW-HE130
		1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i 7h: 1080/29.97PsF 8h: 1080/25PsF Ah:1080/23.98PsF 10h: 1080/59.94p 11h: 1080/50p 12h: 480/59.94p 13h: 576/50p 14h: 1080/29.97p 15h: 1080/25p 16h: 1080/23.98p
		In the case of the AW-HR140
		1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i 7h: 1080/29.97PsF 8h: 1080/25PsF Ah:1080/23.98PsF 10h:1080/59.94p 11h:1080/50p 14h:1080/29.97p 15h:1080/25p 16h: 1080/23.98p
		In the case of the AW-HE40/AW-UE70
		1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i 7h: 1080/29.97PsF 8h: 1080/25PsF 10h: 1080/59.94p 11h: 1080/50p 14h: 1080/29.97p

Camera information	Command	[data] section
		15h: 1080/25p 17h: 2160/29.97p 18h: 2160/25p In the case of the AW-HE42 1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/50i 7h: 1080/29.97PsF 8h: 1080/25PsF 10h: 1080/59.94p 11h: 1080/50p 14h: 1080/29.97p 15h: 1080/25p In the case of the AK-UB300 00h: 720/60p 01h: 720/59.94p 02h: 720/50p 04h: 1080/59.94i 05h: 1080/50i 07h: 1080/29.97psF 08h: 1080/25psF 0Ah: 1080/23.98psF 10h: 1080/59.94p 11h: 1080/50p 16h: 1080/23.98p 17h: 2160/29.97p 18h: 2160/25p 19h: 2160/59.94p 1Ah: 2160/50p 1Bh: 2160/23.98p 1Ch: 2160/29.97psF 1Dh: 2160/25psF 1Eh: 2160/23.98psF 1Fh: 2160/60p 20h: 1080/60p 44h: 1080/59.94i CROP 45h: 1080/50i CROP 50h: 1080/59.94p CROP 51h: 1080/50p CROP In the case of the AW-UE150 01h: 720/59.94p 02h: 720/50p 04h: 1080/59.94i 05h: 1080/50i 07h: 1080/29.97psF 08h: 1080/25psF 0Ah: 1080/23.98psF 10h: 1080/59.94p 11h: 1080/50p 14h: 1080/29.97p 15h: 1080/25p 16h: 1080/23.98p (over59.94i) 17h: 2160/29.97p 18h: 2160/25p 19h: 2160/59.94p 1Ah: 2160/50p 1Bh: 2160/23.98p 21h: 2160/24p 22h: 1080/24p

Camera information	Command	[data] section
Camera Title	---	23h: 1080/23.98p TITLE:[data (Max. 20 half-size characters)]
Output format (SDI) (Format_SD)	OSD:B9: 0x[data]	In the case of the AW-UE70/AW-HE42 1h:720/59.94p 2h:720/50p 4h:1080/59.94i 5h:1080/50i 7h:1080/29.97psF 8h:1080/25psF 10h:1080/59.94p 11h:1080/50p 14h:1080/29.97p 15h:1080/25p
Gain	OGU: 0x[data]	In the case of the AW-HE50/AW-HE60 80h: Auto 08h: 0dB 0Bh: 3dB 0Eh: 6dB 11h: 9dB 14h: 12dB 17h: 15dB 1Ah: 18dB In the case of the AW-HE120 80h : Auto 08 h: 0dB ` 11 h: 9dB ` 1A h: 18dB ● Value can be set in increments of 1dB. In the case of the AW-HE130 80h : Auto 08h : 0dB ` 1Ah : 18dB ` 2Ch : 36dB ● Value can be set in increments of 1dB. In the case of the AW-HR140/AW-UE150 80h : Auto 08h : 0dB ~ 1Ah : 18dB ~ 2Ch : 36dB ~ 32h : 42dB ● Value can be set in increments of 1dB. In the case of the AW-HE40/AW-UE70/AW-HE42 80h : Auto 08h : 0dB `

Camera information	Command	[data] section
		1Ah : 18dB ↳ 38h : 48dB ● Value can be set in increments of 3dB.
Pedestal	OTD: 0x[data]	In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-UE70/AW-HE42 3Ch: +10 1Bh: -1 39h: +9 18h: -2 36h: +8 15h: -3 33h: +7 12h: -4 30h: +6 0Fh: -5 2Dh: +5 0Ch: -6 2Ah: +4 09h: -7 27h: +3 06h: -8 24h: +2 03h: -9 21h: +1 00h: -10 1Eh: 0
AWB Mode	OAW:[data]	In the case of the AW-HE50/AW-HE60 0: ATW 2: AWB A 3: AWB B In the case of the AW-HE120 0: ATW 2: AWB A 3: AWB B 4: 3200K 5: 5600K In the case of the AW-HE130/AW-HE40/AW-UE70/AW-HE42/ AW-HR140/AW-UE150 0: ATW 2: AWB A 3: AWB B 4: 3200K 5: 5600K 9: VAR
Shutter Mode	OSH: 0x[data]	In the case of the AW-HE50/AW-HE60/ AW-HE120/AW-HE40/ AW-UE70/AW-HE42 0h: Off 3h: Step -1/100(59.94Hz) 1/120(50Hz) 5h: Step - 1/250 6h: Step - 1/500 7h: Step - 1/1000 8h: Step - 1/2000 9h: Step - 1/4000 Ah: Step - 1/10000 Bh: SynchroScan Ch: ELC ※AW-HE120 only

Camera information	Command	[data] section
		<p>In the case of the following formats of AW-HE130/AW-HR140 (1080/59.94i / 1080/59.94P / 720/59.94P / 480/59.94P)</p> <p>0h OFF 3h 1/100 4h 1/120 5h 1/250 6h 1/500 7h 1/1000 8h 1/2000 9h 1/4000 Ah 1/10000 Bh Synchro-Scan Ch ELC</p>
		<p>In the case of the following formats of AW-HE130/AW-HR140 (1080/29.97p)</p> <p>0h OFF 2h 1/60 4h 1/120 5h 1/250 6h 1/500 7h 1/1000 8h 1/2000 9h 1/4000 Ah 1/10000 Bh Synchro-Scan Ch ELC Fh 1/30</p>
		<p>In the case of the following formats of AW-HE130/AW-HR140 (1080/23.98p)</p> <p>0h OFF 2h 1/60 4h 1/120 5h 1/250 6h 1/500 7h 1/1000 8h 1/2000 9h 1/4000 Ah 1/10000 Bh Synchro-Scan Ch ELC Dh 1/24</p>
		<p>In the case of the following formats of AW-HE130/AW-HR140 (1080/50i / 1080/50P / 720/50P / 480/50P)</p> <p>0h OFF 2h 1/60 3h 1/120 5h 1/250 6h 1/500 7h 1/1000 8h 1/2000</p>

Camera information	Command	[data] section
		<p>9h 1/4000 Ah 1/10000 Bh Synchro-Scan Ch ELC</p> <p>In the case of the following formats of AW-HE130/AW-HR140 (1080/25p)</p> <p>0h OFF 2h 1/60 3h 1/120 5h 1/250 6h 1/500 7h 1/1000 8h 1/2000 9h 1/4000 Ah 1/10000 Bh Synchro-Scan Ch ELC Eh 1/25</p>
Detail	ODT:[data]	<p>In the case of the AW-HE50/AW-HE60/ AW-HE120/AW-HE40/ AW-UE70/AW-HE42</p> <p>0: Off 1: Low 2: High</p> <p>In the case of the AW-HE130/AK-UB300/AW-HR140/AW-UE150</p> <p>0: Off 1: On 2: On</p>
Scene	OSF:[data]	<p>In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-UE70/AW-HE42</p> <p>0: Manual1 1: Manual2 2: Manual3 3: FullAuto</p> <p>In the case of the AW-HE120/AW-HE130/AW-HR140/AW-UE150</p> <p>0: Scene1 1: Scene2 2: Scene3 3: Scene4</p> <p>In the case of the AK-UB300</p> <p>0:Current 1:Scene1 2:Scene2 3:Scene3 4:Scene4 5:Scene5 6:Scene6 7:Scene7 8:Scene8</p>
Camera/ColorBar	OBR:[data]	0: Camera 1: ColorBar
Speed With Zoom Pos.	sWZ[data]	0: Off

Camera information	Command	[data] section
※ Not supported by the AK-UB300.		1: On
Preset Mode ※ Not supported by the AK-UB300.	OSE:71:[data]	0: Mode A 1: Mode B 2: Mode C
Install Position ※ Not supported by the AK-UB300.	iNS:[data]	0: Desktop 1: Hanging
OSD On/Off	OUS:[data]	0: Off 1: On
Focus Mode ※ Not supported by the AK-UB300.	d1:[data]	0: Manual 1: Auto
Iris Mode ※ Not supported by the AK-UB300.	d3:[data]	0: Manual 1: Auto
Latest Call Preset No. ※ Not supported by the AK-UB300.	s:[data]	1~100
Total Detail Level	OSA:30:[data]	In the case of the AW-HE60 81h : 1 ⋮ 91h : 17 In the case of the AW-HE50/AW-HE120/ AW-HE40/AW-UE70/AW-HE42 0 (fixed) In the case of the AW-HE130/AW-HR140 61h : 0 ⋮ 80h : 31 ⋮ 9Fh : 62 In the case of the AK-UB300/AW-UE150 61h : -31 ⋮ 80h : 0 ⋮ 9Fh : +31
ND Filter ※ Not supported by the AK-UB300.	d2:[data]	0 (fixed)
Option SW ※ Not supported by the AK-UB300. ※ In the case of AW-HE60 (V3.00 or later) and AW-HE130/AW-HE40/AW-UE70/AW- HE42, used as Day/Night switching.	d6:[data]	0: Off 1: On
Lamp ※ Not supported by the AK-UB300.	d4:[data]	0 (fixed)
Iris Follow ※ Not supported by the AK-UB300.	OSD:4F:[data]	00h: Close ⋮ FFh: Open
Error Notice ※ Only supported by the AW-HE120/AK-UB300/AW-HR140/AW- UE150	OER:[data]	In the case of the AW-HE120/AK-UB300/AW-HR140 0: Normal 1: Fan Error In the case of the AW-UE150 0: Normal

Camera information	Command	[data] section
		1: Fan Error 2: Other Error Notify error for each bit
P/T Mode of Preset ※ Not supported by the AK-UB300.	rt[data]	1 (fixed)
Zoom Position ※ Not supported by the AK-UB300.	axz[data]	555h: Wide : FFFh: Tele
Error Status Info. ※ Not supported by the AK-UB300.	rER[data]	00h: No Error 01h: Error01 : 56h: Error86
Focus Position ※ Not supported by the AK-UB300.	axf[data]	555h: Near : FFFh: Far
Preset Entry No.001~040 ※ Not supported by the AK-UB300.	pE00[data]	0000000000~FFFFFFFFF(40bit) bit01: Preset-No.001 : bit40: Preset-No.040 0: No Entry 1: Entry
Preset Entry No.041~080 ※ Not supported by the AK-UB300.	pE01[data]	0000000000~FFFFFFFFF(40bit) bit01: Preset-No.041 : bit40: Preset-No.080 0: No Entry 1: Entry
Preset Entry No.081~100 ※ Not supported by the AK-UB300.	pE02[data]	0000000000~FFFFFFFFF(40bit) bit01: Preset-No.081 : bit20: Preset-No.100 bit21: 0 (fixed) : bit40: 0 (fixed) 0: No Entry 1: Entry
Preset Speed ※ Not supported by the AK-UB300.	uPVS[data]	000: Max Speed (Preset Speed:30) 250: Slow (Preset Speed:1) : 999: Fast(Preset Speed:30) Preset speed unit : Time (※Only supported by the AW-UE150) 001h: 1 ... 063h: 99
Tilt-Up Limitation Set ※ Not supported by the AK-UB300.	IC1[data]	0: Release 1: Set
Tilt-Down Limitation Set ※ Not supported by the AK-UB300.	IC2[data]	0: Release 1: Set
Pan-Left Limitation Set ※ Not supported by the AK-UB300.	IC3[data]	0: Release 1: Set

Camera information	Command	[data] section
Pan-Right Limitation Set ※ Not supported by the AK-UB300.	IC4[data]	0: Release 1: Set
R Gain	ORG:[data] ORI:[data]	In the case of the AW-HE50 (Ver.2 or a later version)/AW-HE60/AW-HE40/AW-UE70/AW-HE42 00h: -30 ⋮ 1Eh: 0 ⋮ 3Ch: +30 In the case of the AW-HE120/AW-HE130/AW-HR140 000h: -150 ⋮ 096h: 0 ⋮ 12Ch: +150
B Gain	OBG:[data] OBI:[data]	In the case of the AW-HE50 (Ver.2 or a later version)/AW-HE60/AW-HE40/AW-UE70/AW-HE42 00h: -30 ⋮ 1Eh: 0 ⋮ 3Ch: +30 In the case of the AW-HE120/AW-HE130/AW-HR140 000h: -150 ⋮ 096h: 0 ⋮ 12Ch: +150
Pedestal ※ Only AW-HE120/AW-HE130	OTP: 0x[data]	000h: -150 ⋮ 096h: 0 ⋮ 12Ch: +150
R Pedestal ※ Only AW-HE120/AW-HE130	ORP: 0x[data]	In the case of the AW-HE120 000h: -150 ⋮ 096h: 0 ⋮ 12Ch: +150 In the case of the AW-HE130/AW-HR140/AW-UE150 032h: -100 ⋮ 096h: 0 ⋮ 0FAh: +100
B Pedestal ※ Only AW-HE120/AW-HE130	OBP: 0x[data]	In the case of the AW-HE120 000h: -150

Camera information	Command	[data] section
		... 096h: 0 ... 12Ch: +150
		In the case of the AW-HE130/AW-HR140/AW-UE150
		032h: -100 ... 096h: 0 ... 0FAh: +100
Color Temperature	OSD:B1: 0x[data]	In the case of the AW-HE130/AW-HR140 000h: 2000K ... 078h: 15000K
		In the case of the AW-HE40/AW-UE70/AW-HE42
		000h: 2400K ... 04Bh: 9900K
Preset Speed Table ※Only AW-HE130/AW-HE40/ AW-UE70/AW-HE42/AW-UE150	pST[data]	0: Slow 2: Fast
Freezing images during preset playback (Freeze During Preset) ※Only AW-HE130/AW-HE40/ AW-UE70/AW-HE42/AW-UE150	pRF[data]	0: Off 1: On
Image Stabilization (IS) ※Only AW-HE130 (Optical)/ AW-HE40/ AW-UE70/AW-HE42/AW-UE150	OIS:[data]	0: Off 1: On
Digital Extender ※Only AW-HE130/AW-HE40/ AW-UE70/AW-HE42/AK-UB300 ※Notify for previous version compatibility in AW-UE150	ODE:[data]	0: Off 1: On
Digital Extender ※Only AW-UE150	OSJ:4E:[data]	0: Off 1: x1.4 2: x2.0
Digital Zoom ※Only AW-HE40/ AW-UE70/AW-HE42/AW-UE150	OSE:70:[Data]	0: Off 1: On
iZoom ※Only AW-HE40/ AW-UE70/AW-HE42/AW-UE150	OSD:B3:[Data]	0: Off 1: On
RED Tally ※Only AK-UB300/AW-UE150	TLR:[data]	0: Off 1: On
RED Tally ※Only AW-UE150	dA[data]	0: Off 1: On
GREEN Tally ※Only AK-UB300/AW-UE150	TLG:[data]	0: Off 1: On
Lens Information ※Only AK-UB300	OSI:18:0x[data1]:0x[data2]:0x[data3]	[data1] 555h: Wide ?

Camera information	Command	[data] section
		FFFh: Tele [data2] 555h: Near ~ FFFh: Far [data3] 555h: Close ~ FFFh: Open
Iris Auto/Manual ※Only AK-UB300	ORS:[data]	0: Manual 1: Auto
Iris Volume ※Only AK-UB300	ORV:0x[data]	000h: Close ~ 3FFh: Open
Iris Offset	OSD:48:0x[data]	In the case of the AK-UB300 00h: 0 ~ 64h: 100
PICTURE LEVEL		In the case of the AW-UE150 00h: -50 ~ 64h: +50
Iris F Volume ※Only AK-UB300/AW-UE150	OIF:0x[data]	0Eh: F1.4 ~ A0h: F16 FFh: CLOSE
ND Filter	OFT:[data]	In the case of the AK-UB300 0: Clear 1: 1/4 2: 1/16 3: 1/64 In the case of the AW-UE150 0: Through 1: 1/4 2: 1/16 3: 1/64
Shutter SW ※Only AK-UB300	OSG:59:[data]	0: Off 1: On
Shutter Mode ※Only AK-UB300	OSG:5A:[data]	0: Shutter 1: Synchro
Shutter Speed ※Only AK-UB300	OSG:5D:0x[data]	00h: 1/48 01h: 1/50 02h: 1/60 03h: 1/96 04h: 1/100 05h: 1/120 06h: 1/125 07h: 1/250 08h: 1/500 09h: 1/1000 0Ah: 1/1500 0Bh: 1/2000 0Ch: 180.0deg 0Dh: 172.8deg 0Eh: 144.0deg 0Fh: 120.0deg

Camera information	Command	[data] section
		10h: 90.0deg 11h: 45.0deg
Gain Select ※Only AK-UB300	OGS:0x[data]	01h: LOW 04h: MID 08h: HIGH 06h: S.GAIN1 0Ch: S.GAIN2 0Eh: S.GAIN3
R Gain ※Only AK-UB300	OSG:39:0x[data]	In the case of the AK-UB300 418h: -1000 ~ 800h: 0 ~ BE8h: 1000 In the case of the AW-UE150 738h: -200 ~ 800h: 0 ~ 8C8h: 200
B Gain ※Only AK-UB300	OSG:3A:0x[data]	In the case of the AK-UB300 418h: -1000 ~ 800h: 0 ~ BE8h: 1000 In the case of the AW-UE150 738h: -200 ~ 800h: 0 ~ 8C8h: 200
Pedestal ※Only AK-UB300	OSG:4A:0x[data]	1Dh: -99 ~ 80h: 0 ~ E3h: 99
R Pedestal ※Only AK-UB300	OSG:4C:0x[data]	4E0h: -800 ~ 800h: 0 ~ B20h: 800
B Pedestal ※Only AK-UB300	OSG:4E:0x[data]	4E0h: -800 ~ 800h: 0 ~ B20h: 800
CROP OUT SEL ※Only AK-UB300/AW-UE150	OSI:16:[data]	1: YL 2: G 3: MG
CROP ADJ SEL ※Only AK-UB300/AW-UE150	OSI:17:[data]	1: YL 2: G 3: MG
Auto Iris Speed ※Only AW-UE150	OSJ:01:0x[data]	0h: Slow 1h: Normal 2h: Fast

Camera information	Command	[data] section
Auto Iris Window ※Only AW-UE150	OSJ:02:0x[data]	0h: Normal1 1h: Normal2 2h: Center
Shutter Mode ※Only AW-UE150	OSJ:03:0x[data]	0h: Off 1h: Step 2h: Synchro 3h: ELC
Step VAL ※Only AW-UE150	OSJ:06:0x[data]	0001h: 1/1 ~ 2710 h: 1/10000
Synchro VAL ※Only AW-UE150	OSJ:09:0x[data]	00000h: 0.0 [Hz] ~ 186A0h: 10000.0 [Hz]
ELC Limit(AutoShutterLimit) ※Only AW-UE150	OSD:BF:[data]	2: 1/100 3: 1/120 4: 1/250
Super Gain ※Only AW-UE150	OSI:28:[data]	0: OFF 1: ON
AGC Max Gain ※Only AW-UE150	OSD:69:[data]	01: 6dB 02: 12dB 03: 18dB
Fram Mix ※Only AW-UE150	OSA:65:0x[data]	00h: OFF 06h: +6dB 0Ch: +12dB 12h: +18dB 18h: +24dB
COLOR TEMPERATURE ※Only AK-UB300/AW-UE150	OSI:20:0x[data]:0	00000h: 0 K ~ 0FFFFh: 1048575 K
AWB Gain Offset ※Only AW-UE150	OSJ:0C:0x[data]	0: Off 1: On
ATW Speed ※Only AW-UE150	OSI:25:[data]	0: Normal 1: Slow 2: Fast
ATW Target R ※Only AW-UE150	OSJ:0D:0x[data]	76h: -10 ~ 80h: 0 ~ 8Ah: 10
ATW Target B ※Only AW-UE150	OSJ:0E:0x[data]	76h: -10 ~ 80h: 0 ~ 8Ah: 10
Chroma Level ※Only AK-UB300/AW-UE150	OSD:B0:0x[data]	00h: Off 1Dh: -99% ~ 80h: 0% ~ E3h: 99%
Chroma Phase ※Only AW-UE150	OSJ:0B:0x[data]	61h: -31 ~ 80h: 0 ~ 9Fh: 31
Master Pedestal	OSJ:0F:0x[data]	738h: -200

Camera information	Command	[data] section
※Only AW-UE150		~ 800h: 0 ~ 8C8h: 200
G Pedestal ※Only AW-UE150	OSJ:10:0x[data]	032h: -100 ~ 096h: 0 ~ 0FAh: 100
Pedestal Offset ※Only AW-UE150	OSJ:11:[data]	0: Off 1: On
Detail Coring ※Only AW-UE150	OSJ:12:0x[data]	00h: 0 ~ 3Ch: 60
V Detail Level ※Only AW-UE150	OSD:A1:0x[data]	79h: -7 ~ 80h: 0 ~ 87h: 7
Detail Frequency ※Only AW-UE150	OSD:A2:0x[data]	79h: -7 ~ 80h: 0 ~ 87h: 7
Level Depend. ※Only AW-UE150	OSJ:13:0x[data]	79h: -7 ~ 80h: 0 ~ 87h: 7
Knee Ape. Level ※Only AK-UB300/AW-UE150	OSG:3F:0x[data]	00h: 0 ~ 05h: 5
Detail Gain(+) ※Only AK-UB300/AW-UE150	OSA:38:0x[data]	61h: -31 ~ 80h: 0 ~ 9Fh: 31
Detail Gain(-) ※Only AK-UB300/AW-UE150	OSA:39:0x[data]	61h: -31 ~ 80h: 0 ~ 9Fh: 31
Skin Detail ※Only AK-UB300/AW-UE150	OSA:40:[data]	0: Off 1: On
Skin Detail Effect ※Only AW-UE150	OSD:A3:0x[data]	80h: 0 ~ 9Fh: 31
DownCon Detail ※Only AW-UE150	OSJ:14:0x[data]	0: Off 1: On
DC. Master Detail ※Only AW-UE150	OSJ:15:0x[data]	61h: -31 ~ 80h: 0 ~ 9Fh: 31
DC. Detail Coring ※Only AW-UE150	OSJ:16:0x[data]	00h: 0 ~

Camera information	Command	[data] section
		3Ch: 60
DC. V Detail Level ※Only AW-UE150	OSJ:17:0x[data]	79h: -7 ~ 80h: 0 ~ 87h: 7
DC. Detail Frequency ※Only AW-UE150	OSJ:18:0x[data]	7Eh: -2 ~ 80h: 0 ~ 82h: 2
DC. Level Depend ※Only AW-UE150	OSJ:19:0x[data]	79h: -7 ~ 80h: 0 ~ 87h: 7
DC. Knee Ape Level ※Only AW-UE150	OSJ:1A:0x[data]	00h: 0 ~ 05h: 5
Gamma Mode ※Only AW-UE150	OSE:72:[data]	0: HD 2: FILMLIKE1 3: FILMLIKE2 4: FILMLIKE3 5: FILM REC 6: VIDEO REC 7: HLG
Gamma ※Only AW-UE150	OSA:6A:0x[data]	67h: 0.30 ~ 6Ch: 0.35 ~ 80h: 0.55 ~ 94h: 0.75
F-REC Dynamic LVL ※Only AK-UB300/AW-UE150	OSA:10:[data]	0: 200% 1: 300% 2: 400% 3: 500% 4: 600%
F-REC Black STR LVL ※Only AK-UB300/AW-UE150	OSA:0F:0x[data]	00h : 0 ~ 1Eh : 30
V-REC Knee Slope ※Only AK-UB300/AW-UE150	OSA:25:0x[data]	7Ch : 150% ~ 80h : 350% ~ 83h : 500% (1step=50%)
V-REC Knee Point ※Only AK-UB300/AW-UE150	OSA:21:0x[data]	62h : 30% ~ 80h : 60% ~ 9Eh : 90% ~ Afh : 107%
MASTER BLACK GAMMA ※Only AK-UB300/AW-UE150	OSA:07:0x[data]	In the case of the AK-UB300 50h: -48

Camera information	Command	[data] section
		~ 80h:0 ~ B0h:+48 In the case of the AW-UE150
		78h:-8 ~ 80h:0 ~ 88h:+8
B.Gamma Range ※Only AW-UE150	OSJ:1B:0x[data]	1 ~ 3
DRS ※Only AW-UE150	OSE:33:[data]	0: OFF 1: LOW 2: MID 3: HIGH
Knee Mode ※Only AK-UB300/AW-UE150	OSA:2D:[data]	0: OFF 1: MANUAL 2: AUTO
AUTO KNEE RESPONSE ※Only AK-UB300/AW-UE150	OSG:97:[data]	1 ~ 8
MASTER KNEE POINT ※Only AK-UB300/AW-UE150	OSA:20:0x[data]	22h: 70.00% ~ 4Ah: 80.00% ~ 80h: 93.50% ~ B6h: 107.00% (1step=0.25%) (Valid for 2 step units only: 0.5% increments)
MASTER KNEE SLOPE ※Only AK-UB300/AW-UE150	OSA:24:0x[data]	00h: 0 ~ 63h: 99
HLG KNEE SW ※Only AK-UB300/AW-UE150	OSI:40:[data]	0: Off 1: On
HLG KNEE POINT ※Only AK-UB300/AW-UE150	OSI:41:0x[data]	In the case of the AK-UB300 30h : 60% ~ 80h 80%: ~ D0h : 100% (1step=0.25%) (Valid for 4 step units only: 1% increments) In the case of the AW-UE150 1Ch : 55% ~ 80h 80%: ~ D0h : 100% (1step=0.25%) (Valid for 4 step units only: 1% increments)
HLG KNEE SLOPE ※Only AK-UB300/AW-UE150	OSI:42:0x[data]	In the case of the AK-UB300 00h: 0

Camera information	Command	[data] section
		~ C7h: 199 In the case of the AW-UE150 00h: 0 ~ 64h: 100
White Clip ※Only AW-UE150	OSA:2E:[data]	0: Off 1: On
White Clip Level ※Only AW-UE150	OSA:2A:0x[data]	00h :90% ~ 13h :109%
DNR ※Only AW-UE150	OSD:3A:0x[data]	00: OFF 01: LOW HIG0H
MATRIX TYPE ※Only AW-UE150	OSE:31:[data]	0: NORMAL 1: EBU 2: NTSC 3: USER
MATRIX(R-G) ※Only AW-UE150	OSD:A4:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
MATRIX(R-B) ※Only AW-UE150	OSD:A5:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
MATRIX(G-R) ※Only AW-UE150	OSD:A6:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
MATRIX(G-B) ※Only AW-UE150	OSD:A7:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
MATRIX(B-R) ※Only AW-UE150	OSD:A8:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
MATRIX(B-G) ※Only AW-UE150	OSD:A9:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
B_Mg (SATURATION) ※Only AK-UB300/AW-UE150	OSD:80:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
B_Mg (PHASE) ※Only AK-UB300/AW-UE150	OSD:81:0x[data]	41h: -63 ~ 80h: 0

Camera information	Command	[data] section
		~ BFh: 63
Mg (SATURATION) ※Only AK-UB300/AW-UE150	OSD:82:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Mg (PHASE) ※Only AK-UB300/AW-UE150	OSD:83:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Mg_R (SATURATION) ※Only AK-UB300/AW-UE150	OSD:84:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Mg_R (PHASE) ※Only AK-UB300/AW-UE150	OSD:85:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Mg_R_R (SATURATION) ※Only AW-UE150	OSD:9A:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Mg_R_R (PHASE) ※Only AW-UE150	OSD:9B:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R (SATURATION) ※Only AK-UB300/AW-UE150	OSD:86:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R (PHASE) ※Only AK-UB300/AW-UE150	OSD:87:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R_R_YI (SATURATION) ※Only AW-UE150	OSD:9C:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R_R_YI (PHASE) ※Only AW-UE150	OSD:9D:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R_YI (SATURATION) ※Only AK-UB300/AW-UE150	OSD:88:0x[data]	41h: -63 ~ 80h: 0 ~

Camera information	Command	[data] section
R_YI (PHASE) ※Only AK-UB300/AW-UE150	OSD:89:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R_YI_YI (SATURATION) ※Only AW-UE150	OSD:9E:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
R_YI_YI (PHASE) ※Only AW-UE150	OSD:9F:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
YI (SATURATION) ※Only AK-UB300/AW-UE150	OSD:8A:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
YI (PHASE) ※Only AK-UB300/AW-UE150	OSD:8B:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
YI_YI_G Saturation ※Only AW-UE150	OSJ:1C:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
YI_YI_G Phase ※Only AW-UE150	OSJ:1D:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
YI_G (SATURATION) ※Only AK-UB300/AW-UE150	OSD:8C:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
YI_G (PHASE) ※Only AK-UB300/AW-UE150	OSD:8D:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
G (SATURATION) ※Only AK-UB300/AW-UE150	OSD:8E:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
G (PHASE) ※Only AK-UB300/AW-UE150	OSD:8F:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63

Camera information	Command	[data] section
G_Cy (SATURATION) ※Only AK-UB300/AW-UE150	OSD:90:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
G_Cy (PHASE) ※Only AK-UB300/AW-UE150	OSD:91:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Cy (SATURATION) ※Only AK-UB300/AW-UE150	OSD:92:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Cy (PHASE) ※Only AK-UB300/AW-UE150	OSD:93:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Cy_B (Saturation) ※Only AK-UB300/AW-UE150	OSD:94:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
Cy_B (PHASE) ※Only AK-UB300/AW-UE150	OSD:95:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
B (SATURATION) ※Only AK-UB300/AW-UE150	OSD:96:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
B (PHASE) ※Only AK-UB300/AW-UE150	OSD:97:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
FOCUS MODE ※Only AW-UE150	OAF:[data]	0: Manual FOCUS 1: AUTO FOCUS
MAXIMUM DIGITAL ZOOM ※Only AW-UE150	OSE:7A:[data]	02: x2 ~ 10: x10
Iris Control ※Only AW-UE150	axi[data]	555h: Iris Close ~ FFFh: Iris Open
Frequency ※Only AW-UE150	OSE:77:[data]	0: 59.94Hz 1: 50.00Hz 2: 24Hz 3: 23.98Hz
FAN ※Only AW-UE150	fAN[data]	0: Auto 1: High 2: Mid 3: Low

Camera information	Command	[data] section
FAN2 ※Only AW-UE150	fA2[data]	0: Auto 1: High 2: Mid 3: Low
UHD Crop ※Only AW-UE150	OSJ:2E:0x[data]	0: Off 1: Crop(1080) 2: Crop(720)
Crop Marker ※Only AK-UB300/AW-UE150	OSI:1A:[data]	0: OFF 1: YL 2: G 3: MG 4: YL+G 5: YL+MG 6: G+MG 7: YL+G+MG
Crop H POS. (YL) ※Only AW-UE150	OSJ:2F:0x[data]	000h: 0 ~ 780h: 1920 ~ A00h: 2560
Crop V POS. (YL) ※Only AW-UE150	OSJ:30:0x[data]	000h: 0 ~ 438h: 1080 ~ 5A0h: 1440
Crop H POS. (G) ※Only AW-UE150	OSJ:31:0x[data]	000h: 0 ~ 780h: 1920 ~ A00h: 2560
Crop V POS. (G) ※Only AW-UE150	OSJ:32:0x[data]	000h: 0 ~ 438h: 1080 ~ 5A0h: 1440
Crop H POS. (MG) ※Only AW-UE150	OSJ:33:0x[data]	000h: 0 ~ 780h: 1920 ~ A00h: 2560
Crop V POS. (MG) ※Only AW-UE150	OSJ:34:0x[data]	000h: 0 ~ 438h: 1080 ~ 5A0h: 1440
PT. Speed Mode ※Only AW-UE150	OSJ:2D: [data]	0: Normal 1: Fast
Focus ADJ With PTZ ※Only AW-UE150	OAZ: [data]	0: Off 1: On
Preset Speed Unit ※Only AW-UE150	OSJ:29:[data]	0: Speed Table 1: Time
Preset D-Extender ※Only AW-UE150	OSE:7C:[data]	0: Off 1: On
Preset Crop ※Only AW-UE150	OSJ:2A:0x[data]	0: Off 1: On
Preset Thumbnail Update	OSJ:2B:0x[data]	0: Off

Camera information	Command	[data] section
※Only AW-UE150		1: On
Preset Name ※Only AW-UE150	OSJ:2C:0x[data]	0: Reset 1: Hold
Preset Zoom Mode ※Only AW-UE150	OSE:7D:[data]	0: Mode A 1: Mode B
Operation Lock Status ※Only AW-UE150	OSJ:40:[data1]:[data2]	[Data1] 0: Unlock 1: Lock [Data2] Any Information (40 Charactors)
ERROR INFORMATION ※Only AW-UE150	OSI:46:0x[data]	00000000h: No Error 00000001h: Fan Error 00000002h: High Temperature 00000004h: Lens Error 00000008h: Pan/Tilt Error 00000010h: Sensor Error
P/T Absolute Position Control ※Only AW-UE150	aPC[data1][data2]	[Data1]Pan Position 0000h: CCW Limit ~ 8000h: Center ~ FFFFh: CW Limit [Data2]Tilt Position 0000h: UP Limit ~ 8000h: Center ~ FFFFh: DOWN Limit
Power On Position ※Only AW-UE150	OSJ:45:[data]	0: None 1: Standby 2: Home 3: Preset
Power On Preset Number ※Only AW-UE150	OSJ:46:[data]	00: Preset001 ~ 99: Preset100
Shooting Mode ※Only AK-UB300/AW-UE150	OSI:30:[data]	0: NORMAL 1: HIGH SENS.
A.IRIS LEVEL ※Only AK-UB300	OSI:1D:0x[data]	00h: 0 ~ 64h :100
LOW GAIN ※Only AK-UB300	OSA:50:0x[data]	7Ah: -6dB ~ 88h: 36dB
MID GAIN ※Only AK-UB300	OSA:51:0x[data]	7Ah: -6dB ~ 88h: 36dB
HIGH GAIN ※Only AK-UB300	OSA:52:0x[data]	7Ah: -6dB ~ 88h: 36dB
MODE @S.GAIN ※Only AK-UB300	OSA:60:[data]	0: S.GAIN1 1: S.GAIN2 2: S.GAIN3
MATRIX ※Only AK-UB300	OSG:A0:[data]	0: Off 1: On
MATRIX TABLE	OSA:84:[data]	0: Off

Camera information	Command	[data] section
(LINEAR MATRIX) ※Only AK-UB300		1: On 2: On
MATRIX TABLE ※Only AK-UB300	OSA:00:[data]	0: TABLE A 1: TABLE B
MATRIX (R-G)_N ※Only AK-UB300	OSG:A5:N:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (R-G)_P ※Only AK-UB300	OSG:A5:P:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (R-B)_N ※Only AK-UB300	OSG:A6:N:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (R-B)_P ※Only AK-UB300	OSG:A6:P:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (G-R)_N ※Only AK-UB300	OSG:A7:N:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (G-R)_P ※Only AK-UB300	OSG:A7:P:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (G-B)_N ※Only AK-UB300	OSG:A8:N:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (G-B)_P ※Only AK-UB300	OSG:A8:P:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (B-R)_N ※Only AK-UB300	OSG:A9:N:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (B-R)_P ※Only AK-UB300	OSG:A9:P:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
MATRIX (B-G)_N ※Only AK-UB300	OSG:AA:N:0x[data]	00h: -31 ~

Camera information	Command	[data] section
		1Fh: 0 ~ 3Eh: 31
MATRIX (B-G)_P ※Only AK-UB300	OSG:AA:P:0x[data]	00h: -31 ~ 1Fh: 0 ~ 3Eh: 31
COLOR CORRECTION ※Only AK-UB300	OSA:85:[data]	0: Off 1: On
COLOR CORRECT TABLE ※Only AK-UB300	OSG:A4:[data]	0: A 1: B
SKIN AREA SW ※Only AK-UB300	OSG:B0:[data]	0: Off 1: On
SKIN AREA TABLE ※Only AK-UB300	OSG:B1:[data]	0: A 1: B
SKIN AREA HUE ※Only AK-UB300	OSG:B2:0x[data]	01h: -127 ~ 80h: 0 ~ FFh: 127
SKIN AREA TONE ※Only AK-UB300	OSG:B3:0x[data]	01h: -127 ~ 80h: 0 ~ FEh: 126
CHROMA LEVEL SWITCH ※Only AK-UB300	OSG:93:[data]	0: Off 1: On
H DTL LEVEL ※Only AK-UB300	OSA:31:0x[data]	00h: 0 ~ 3Fh :63
V DETAIL LEVEL ※Only AK-UB300	OSG:32:0x[data]	00h: 0 ~ 3Fh :63
PEAK FREQUENCY ※Only AK-UB300	OSG:30:0x[data]	00h: 0 ~ 1Fh: 31
V DETAIL FREQUENCY ※Only AK-UB300	OSG:35:0x[data]	00h: 0 ~ 1Fh: 31
NOISE SUPPRESS/CRISP ※Only AK-UB300	OSD:22:0x[data]	00h: 0 ~ 3Fh :63
DETAIL +CLIP ※Only AK-UB300	OSG:40:0x[data]	00h: 0 ~ 3Fh :63
DETAIL -CLIP ※Only AK-UB300	OSG:41:0x[data]	00h: 0 ~ 3Fh :63
DETAIL SOURCE ※Only AK-UB300	OSA:3B:[data]	0: (G+R)/2 1: (G+B)/2 2: (2G+B+R)/4 3: (3G+R)/4 4: R 5: G
LEVEL DEPENDENT SWITCH	OSG:3E:[data]	0: Off

Camera information	Command	[data] section
※Only AK-UB300		1: On
LEVEL DEPENDENT ※Only AK-UB300	OSD:26:0x[data]	00h: 0 ~ 0Fh :15
SKIN GET (CURSOR) ※Only AK-UB300	OSA:41:[data]	0: Off 1: On 2: Get
MEMORY SELECT ※Only AK-UB300	OSG:42:[data]	0: A 1: B 2: C
H POSITION ※Only AK-UB300	OSG:44:0x[data]	000h: 0% ~ 190h: 100.00%
V POSITION ※Only AK-UB300	OSG:45:0x[data]	000h: 0% ~ 190h: 100.00%
SKIN TONE ZEBRA ※Only AK-UB300	OSA:49:[data]	0: Off 1: On
ZEBRA EFFECT MEMORY ※Only AK-UB300	OSG:47:[data]	0: A 1: B 2: C 3: A+B 4: A+C 5: B+C 6: A+B+C
SKIN TONE EFFECT MEMORY ※Only AK-UB300	OSG:48:[data]	0: A 1: B 2: C 3: A+B 4: A+C 5: B+C 6: A+B+C
SKIN TONE CRISP ※Only AK-UB300	OSG:49:0x[data]	41h: -63 ~ 80h: 0 ~ BFh: 63
SKIN TONE DTL I CENTER (HD) ※Only AK-UB300	OSA:45:0x[data]	00h: 0 ~ FFh: 255
SKIN TONE DTL I WIDTH (HD) ※Only AK-UB300	OSA:46:0x[data]	00h: 0 ~ FFh: 255
SKIN TONE DTL Q WIDTH (HD) ※Only AK-UB300	OSA:47:0x[data]	00h: 0 ~ FFh: 255
SKIN TONE Q PHASE ※Only AK-UB300	OSG:4F:0x[data]	000h: 0 ~ 167h: 359
CLEAN DNR ※Only AK-UB300	OSD:3A:[data]	00: Off 01: On 02: On
DNR LEVEL ※Only AK-UB300	OSG:B5:[data]	1 ~ 5
HAZE REDUCTION	OSG:B6:[data]	0: Off

Camera information	Command	[data] section
※Only AK-UB300		1: On
HAZE REDUCTION LEVEL ※Only AK-UB300	OSG:B7:[data]	1 ~ 3
GEN-LOCK INPUT ※Only AK-UB300	OSG:CA:[data]	0: BNC 1: DSUB
H PHASE-COARSE ※Only AK-UB300	OSG:CB:0x[data]	3h: -5 ~ 8h: 0 ~ Dh: +5
H PHASE-FINE ※Only AK-UB300	OSG:CC:0x[data]	1Ch: -100 ~ 80h: 0 ~ E4h: +100
Crop SDI Out Select ※Only AK-UB300/AW-UE150	OSI:32:[data]	0: FULL 1: CROP
Crop IP Out Select ※Only AK-UB300/AW-UE150	OSI:33:[data]	0: FULL 1: CROP
CROP H POSITION ※Only AK-UB300	OSI:1B:0x[data]	738h: -50% ~ 800h: 0% ~ 8C8h: +50%
CROP V POSITION ※Only AK-UB300	OSI:1C:0x[data]	738h: -50% ~ 800h: 0% ~ 8C8h: +50%
OSD Mix ※Only AK-UB300	OSE:7B:0x[data]	00h: OSD Mix Off 01h: SDI On 10h: IP On
OSD Status ※Only AK-UB300	OSA:88:[data]	0: Off 1: On
HDR SW (MAIN) ※Only AK-UB300	OSI:2C:[data]	0: Off 1: On
COLORIMETRY ※Only AK-UB300	OSI:2D:0x[data]	00h: no effect 01h: BT.709
HDR SW (SDI1) ※Only AK-UB300	OSI:2E:[data]	0: Off 1: On
HDR SW (IP) ※Only AK-UB300	OSI:2F:[data]	0: Off 1: On
DRS SW ※Only AK-UB300	OSA:0D:[data]	0: Off 1: On
HDR SW (SDI2) ※Only AK-UB300	OSI:31:[data]	0: Off 1: On
FLARE SW ※Only AK-UB300	OSA:11:[data]	0: Off 1: On
MASTER FLARE ※Only AK-UB300	OSG:96:0x[data]	1Ch: -100 ~ 80h: 0 ~ E4h: 100
R FLARE ※Only AK-UB300	OSD:35:0x[data]	9Ch: -100 ~

Camera information	Command	[data] section
		00h: 0 ~ 64h: +100
G FLARE ※Only AK-UB300	OSD:36:0x[data]	9Ch: -100 ~ 00h: 0 ~ 64h: +100
B FLARE ※Only AK-UB300	OSD:37:0x[data]	9Ch: -100 ~ 00h: 0 ~ 64h: +100
GAMMA SW ※Only AK-UB300	OSA:0A:[data]	0: Off 1: On
GAMMA MODE SELECT ※Only AK-UB300	OSG:86:[data]	0: HD 1: FILMLIKE1 2: FILMLIKE2 3: FILMLIKE3 4: FILM REC 5: VIDEO REC
MASTER GAMMA ※Only AK-UB300	OSI:34:0x[data]	05DCh: 0.1500 ~ 1194h: 0.4500 ~ 1D4Ch: 0.7500
R GAMMA ※Only AK-UB300	OSI:35:0x[data]	35h: -75 ~ 80h: 0 ~ CBh: 75
B GAMMA ※Only AK-UB300	OSI:36:0x[data]	35h: -75 ~ 80h: 0 ~ CBh: 75
BLACK GAMMA SW ※Only AK-UB300	OSA:0B:[data]	0: Off 1: On
R BLACK GAMMA ※Only AK-UB300	OSA:08:0x[data]	6Ch: -20 ~ 80h: 0 ~ 94h: +20
B BLACK GAMMA ※Only AK-UB300	OSA:09:0x[data]	6Ch: -20 ~ 80h: 0 ~ 94h: +20
R KNEE POINT ※Only AK-UB300	OSA:22:0x[data]	1Ch: -25.00% ~ 80h: 0.00% ~ E4h: +25.00%
B KNEE POINT ※Only AK-UB300	OSA:23:0x[data]	1Ch: -25.00% ~ 80h: 0.00%

Camera information	Command	[data] section
		~ E4h: +25.00%
R KNEE SLOPE ※Only AK-UB300	OSA:26:0x[data]	1Dh: -99 ~ 80h: 0 ~ E3h: +99
B KNEE SLOPE ※Only AK-UB300	OSA:27:0x[data]	1Dh: -99 ~ 80h: 0 ~ E3h: +99
AUTO KNEE POINT ※Only AK-UB300	OSA:28:0x[data]	4Ah: 80.00% ~ 80h: 93.50% ~ B6h: 107.00%
AUTO KNEE LEVEL ※Only AK-UB300	OSA:29:0x[data]	7Ch: 100% ~ 85h: 109%
HLG MODE ※Only AK-UB300	OSI:39:[data]	0: FIX 1: VAR
HLG SDR CONVERT MODE ※Only AK-UB300	OSI:3A:[data]	0: FIX 1: VAR
HLG TYPE SELECT ※Only AK-UB300	OSI:3B:[data]	0: NORMAL 1: STRETCH
HLG BLACK GAMMA SW ※Only AK-UB300	OSI:3C:[data]	0: Off 1: On
HLG MASTER BLACK GAMMA ※Only AK-UB300	OSI:3D:0x[data]	60h: -32 ~ 80h: 0 ~ A0h: +32
HLG R BLACK GAMMA ※Only AK-UB300	OSI:3E:0x[data]	60h: -32 ~ 80h: 0 ~ A0h: +32
HLG B BLACK GAMMA ※Only AK-UB300	OSI:3F:0x[data]	60h: -32 ~ 80h: 0 ~ A0h: +32
HLG SDR CONVERT GAIN ※Only AK-UB300	OSI:43:0x[data]	74h: -12 77h: -9 7Ah: -6 7Dh: -3 80h: 0
HLG SDR CONVERT CLIP ※Only AK-UB300	OSI:44:[data]	0: LOW 1: MID 2: HIGH
Option Device Type ※Only AK-UB300	OSI:2A:[data]	0: no option 1: 4K default 2: 12G option 3: TICO option
Tally Enable	tAE[Data]	0: Disable

Camera information	Command	[data] section
※Only AW-UE150		1: Enable
Tally Information ※Only AW-UE150	tAA[Data1] [Data2] [Data3] [Data4] [Data5] [Data6] [Data7] [Data8] [Data9]	0(Off) 1(On) [Data1] R-Tally On/Off [Data2] Wired R-Tally In On/Off [Data3] Command R-Tally In On/Off [Data4] G-Tally On/Off [Data5] Reserved [Data6] Command G-Tally In On/Off [Data7] Reserved [Data8] Reserved [Data9] Reserved
AWB COLOR TEMPERATURE ※Only AW-UE150	OSJ:4A:0x[Data1]:[Data2]	[Data1] 007D0h: 2000K ~ 03A98h: 15000K [Data2] 0h: Valid 1h: Under 2h: Over
AWB R Gain ※Only AW-UE150	OSJ:4B:0x[Data]	670h: -400 ~ 800h: 0 ~ 990h: 400
AWB B Gain ※Only AW-UE150	OSJ:4C:0x[Data]	670h: -400 ~ 800h: 0 ~ 990h: 400
AWB G Axis ※Only AW-UE150	OSJ:4D:0x[Data]	670h: -400 ~ 800h: 0 ~ 990h: 400
Adaptive Matrix ※Only AW-UE150	OSJ:4F:[Data]	0: Off 1: On
Tracking Data Output Serial Out ※Only AW-UE150	OSJ:54:[Data]	0: Off 1: On
Tracking Data Output IP Out ※Only AW-UE150	OSJ:55:[Data]	0: Off 1: On
Color Setting ※Only AW-UE150	OSJ:56:[Data]	0: Normal 1: V-Log
12G SDI/Fiber Out V-Log Output Select ※Only AW-UE150	OSJ:57:[Data]	0: V-Log 1: V-709
3G SDI Out V-Log Output Select ※Only AW-UE150	OSJ:58:[Data]	0: V-Log 1: V-709
MONI Out V-Log Output Select ※Only AW-UE150	OSJ:59:[Data]	0: V-Log 1: V-709
HDMI Out V-Log Output Select ※Only AW-UE150	OSJ:5A:[Data]	0: V-Log 1: V-709

Camera information	Command	[data] section
Preset Iris ※Only AW-UE150	OSJ:5B:[Data]	0: Off 1: On
Camera Title ※Only AW-UE150	OSJ:5C:[Data]	Camera Title

6. Error return

The three errors ER1, ER2 and ER3 below are returned in response to control or query commands by the camera.

① ER1 (unsupported command)

This error is generated when a command which is not supported by the camera has been received by the camera.

Example) When the non-existent “XF” command is executed for the camera

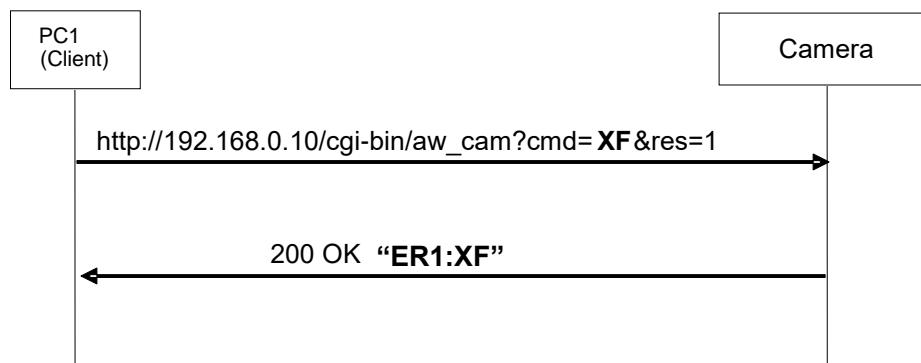


Fig.6-1 Error (ER1)

② ER2 (busy status)

This error is generated during Standby (Power Off) or at other times when the camera is in the busy status.

Example) When the scene file is changed to “Manual1” during Standby.

※In the case of the AW-HE50/AW-HE60

When the scene file is changed to “Scene1” during Standby.

※In the case of the AW-HE120

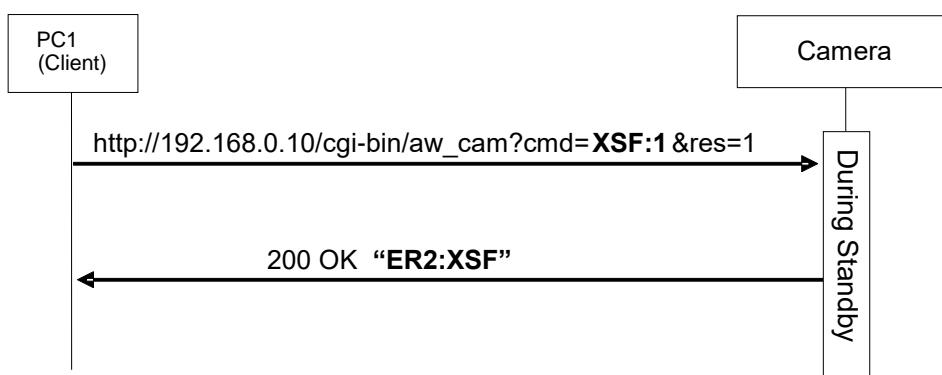


Fig.6-2 Error (ER2)

③ ER3 (outside acceptable range)

This error is generated when the data value of a command is outside the acceptable range.

Example)

The “OGU (gain setting)” command was executed with a data value of “90” which is outside the acceptable range.

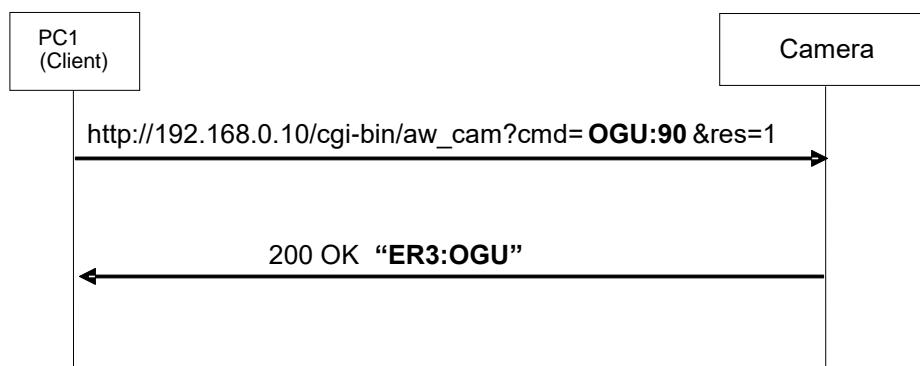


Fig.6-3 Error (ER3)

<Appendix>

This manual describes the HTTP messages using the format for input to the address bar of the web browser as in the example given below.

(Example: http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS5050&res=1)

The actual HTTP messages are in compliance with the HTTP1.1 communication specifications, and have the [Send] and [Receive] formats as given below.

[Send]

A command such as the ones listed below is sent after connection has been made to the specified port (default: 80) which has been set for the camera.

Method: GET

GET /cgi-bin/aw_ptz?cmd=#PTS5050&res=1 HTTP/1.1[CR][LF]	Request
Accept: image/gif, ... (omitted) ... , /*[CR][LF]	
Referer: http://192.168.0.10/[CR][LF]	
Accept-Language: en[CR][LF]	Header
Accept-Encoding: gzip, deflate[CR][LF]	
User-Agent: AW-Cam Controller[CR][LF]	
Host: 192.168.0.10[CR][LF]	
Connection: Keep-Alive[CR][LF]	
[CR][LF]	Blank line

[Receive]

A message with the command name and result value contained in the message body of the HTTP response message is received.

In this manual, this message is given as 200 OK "pTS5050", but in actual fact commands such as the following ones are received.

HTTP/1.1 200 OK[CR][LF]	Response
Status: 200[CR][LF]	Header
Date: Mon, 05 Dec 2011 00:00:00 GMT[CR][LF]	
Server: ver2.4 rev0[CR][LF]	
Connection: Close[CR][LF]	
Content-Type: Text/plain[CR][LF]	
Set-Cookie: Session=0[CR][LF]	
Accept-Ranges: bytes[CR][LF]	
Cache-control: no-cache[CR][LF]	
Content-length: 7[CR][LF]	※Size of message body
[CR][LF]	Blank line
pTS5050	Message body