

# HD/4K Integrated Camera Interface Specifications

## Compatible model Table

Mar. 1, 2025

Panasonic Entertainment &  
Communication Co. Ltd.

Camera command

ITEM	Command Control / Response / Confirmation	Data	Data Contents Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Menu Up	CUP: [Data]	1	Up	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Menu Down	CDW: [Data]	1	Down	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Menu Right	CRT: [Data]	1	Right	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Menu Left	CLT: [Data]	1	Left	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Bar	DCB: [Data] QBR: [Data]	0 1	Camera Color Bar	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Color Bar Setup	DCS: [Data] QCS: [Data] UCS: [Data]	0 1	0.0% 7.5%	----	----	----	----	----	----	----	----	----	----	----	----	----	----	○	○	----	----
Menu Down	DDW: [Data]	1h Ah	1step 10step	supports only 1h(1step)	○	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	○	supports only 1h(1step)	○	○	○	○	○	○	○
Menu Enter	DIT: [Data]	1	Enter	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Menu Left	DLT: [Data]	1h Ah	1step 10step	supports only 1h(1step)	○	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	○	supports only 1h(1step)	----	----	----	○	○	----	----
Menu Cancel	DPG: [Data]	1	Cancel	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Menu Right	DRT: [Data]	1h Ah	1step 10step	supports only 1h(1step)	○	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	○	supports only 1h(1step)	----	----	----	○	○	----	----
Menu Up	DUP: [Data]	1h Ah	1step 10step	supports only 1h(1step)	○	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	supports only 1h(1step)	○	supports only 1h(1step)	○	○	○	○	○	○	○
Menu On/Off	DUS: [Data] QUS: [Data]	0 1	Off On	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Focus(Far)	HFF	----	Move to far	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Focus(Near)	HFN	----	Move to near	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Focus(Stop)	HFS	----	Stop focus	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Zoom(Tele)	HZT	----	Move to tele	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Zoom(Stop)	HZS	----	Stop zoom	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Zoom(Wide)	HZW	----	Move to wide	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Focus Position Control	LFP: [Data]	555h FFfh	Near Far	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Focus Speed	LFS: [Data]	0 9	Slow Fast	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Zoom Position Control	LZP: [Data]	555h FFfh	Wide Tele	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Zoom Speed	LZS: [Data]	0 9	Slow Fast	----	○	----	----	----	----	----	----	----	----	○	○	○	○	----	----	○	○
Focus Mode	OAF: [Data] UAF	0 1	Manual Auto	○	----	○	○	○	○	○	----	○	○	----	○	○	○	○	○	○	○
ABC/ABB SET	OAS	----	ABC/ABB Start	○	----	○	○	○	○	○	○	○	○	○	○	○	○	○	○	----	----
White Balance Mode	OAW: [Data] QAW	※	※	※	※	※	※	※	※	※	※	※	※	----	※	※	※	※	※	※	※
Focus Adjust With PTZ	OAZ: [Data] QAZ	0 1	Off On	○	----	○	○	○	○	○	----	○	○	----	○	○	○	○	○	○	○
B Pedestal	QBD: [Data] QBD	00h 1Eh - 3Ch	-150 - 0 +150	----	----	----	----	----	----	----	----	----	supports only 0A (-100) 32 (+100)	----	----	----	----	supports only 0A (-100) 32 (+100)	○	----	----
B Gain	QBI: [Data] QBI	000h - 096h - 12Ch	-150 - 0 +150	----	----	----	----	----	----	----	----	----	○	----	○	○	○	○	○	○	○
B Gain	QBG: [Data] QGB QGB: [Data]	00h - 1Eh - 3Ch	-30 - 0 +30	----	----	----	----	----	----	----	----	----	○	----	○	○	○	○	○	○	○
B Pedestal	QBP: [Data] QBP	000h - 096h - 12Ch	-150 - 0 +150	supports only -100~-+100	----	----	----	----	supports only -100~-+100	supports only -100~-+100	----	supports only -100~-+100	supports only -100~-+100	----	----	----	----	supports only -100~-+100	○	----	----
Chroma Level	QCG: [Data] QCG	00h 03h - 06h - 0Dh	-3 0 - +3 - 10	----	----	----	----	supports only 03h (0) 0Dh (10)	----	----	supports only 03h (0) 0Dh (10)	----	----	----	supports only 00h (-3) 06h (3)	supports only 00h (-3) 06h (3)	supports only 00h (-3) 06h (3)	----	supports only 00h (-3) 06h (3)	supports only 00h (-3) 06h (3)	supports only 00h (-3) 06h (3)
Digital Extender	QDE: [Data] QDE	0 1	Off On	○	----	----	----	----	----	----	----	0n mean x1.4	○	○	○	○	○	○	----	----	----

ITEM	Command Control / Response / Confirmation	Data	Data Contents																		
			Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Detail	QDT:[Data] QDT	0	Off	○	---	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
		1	Low																		
		2	High																		
		0	UE150A, UE160, UE100, UE150, HE145, HR140, UB300, HE130																		
Error Information	QER QER:[Data]	0	Off																		
		1	On																		
		2	On																		
		0	UE20/HE20/UE4																		
Flip Status	QFS QFS:[Data]	0	Normal	○	---	○	○	---	○	○	---	○	○	---	---	---	---	○	○	---	---
		1	Flip																		
		0	Clear	supports only 0h: Clear (Through)	---	supports only 0h: Clear (Through)	UE80 supports only 0h: Clear (Through)	---	supports only 0h: Clear (Through)	supports only 0h: Clear (Through)	---	supports only 0h: Clear (Through)	supports only 0h: Clear 3h: 1/64 ND	supports only 0h: Clear 1h: 1/4 ND 2h: 1/16 ND 3h: 1/64 ND	supports only 0h: Clear 1h: 1/4 ND 2h: 1/16 ND 3h: 1/64 ND 8h: Auto ND	---	---	supports only 0h: Clear 3h: 1/64 ND 4h: 1/8 ND	supports only 0h: Clear 1h: 1/4 ND 2h: 1/16 ND 3h: 1/64 ND	---	---
		1	1/4 ND																		
ND Filter	QFT:[Data] QFT	2	1/16 ND																		
		3	1/64 ND																		
		4	1/8 ND																		
		5	1/2 ND																		
Gain Select	QGS:[Data] QGS	6	Auto ND																		
		7	NG																		
		0	Low	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---	---
		1	Mid																		
Gain	QGU:[Data] QGU	2	High																		
		3	S.Gain1																		
		4	S.Gain2																		
		5	S.Gain3																		
Horizontal Phase	QHP:[Data] QHP	6	-6dB	supports only 05 (-3dB) - 32 (42dB), 80 (AGC On)	---	supports only 02 (-6dB) - 14 (12dB), 80 (AGC On)	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	supports only 05 (-3dB) - 32 (42dB), 80 (AGC On)	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	---	supports only 08h: 0dB-38h: 48dB 80h: AGC On	supports only 08h: 0dB-38h: 48dB 80h: AGC On	supports only 08h: 0dB-38h: 48dB 80h: AGC On	supports only 08 (0dB) -2C (36dB), 80 (AGC On)	supports only 08 (0dB) -1A (18dB), 80 (AGC On)	supports only 08 (0dB) -1A (18dB), 80 (AGC On)	supports only 08 (0dB) -1A (18dB), 80 (AGC On)
		7	0dB																		
		8	9dB																		
		9	18dB																		
Model Number	Q1D Q1D:[Data]	10	-																		
		11	-																		
		12	-																		
		13	-																		
Request Iris F No.	Q1F Q1F:[Data]	14	-																		
		15	-																		
		16	-																		
		17	-																		
OIS	Q1S:[Data] Q1S	18	-																		
		19	-																		
		20	-																		
		21	-																		
Synchro Scan	QMS:[Data] QMS	22	-																		
		23	-																		
		24	-																		
		25	-																		
Start/Stop REC	QRC:[Data]	26	-																		
		27	-																		
		28	-																		
		29	-																		
R Pedestal	QRD:[Data] QRD	30	-																		
		31	-																		
		32	-																		
		33	-																		

ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
REC Status	QRE QRE:[Data]	0x0000 0x0001 0x8001 0x8002 0x8003 0x8004 0x8005	Ready/Stopped Recording/Started Media not inserted Write Protect Media full Video recording not allowed Other recording not allowed	---	○(query only)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R Gain	ORG:[Data] QGR QGR:[Data]	00h - 1Eh - 30h  00h 1Eh - 30h	-30 - 0 - +30  -150 - 0 - 150	---	---	---	---	---	---	---	---	---	○	---	○	○	○	○	○	○	○
R Gain	ORI:[Data] QRI	000h - 096h - 120h  000h - 096h - 120h	-150 - 0 - +150  -30 - 0 - 30	---	---	---	---	---	---	---	---	---	○	---	○	○	○	○	○	○	○
R Pedestal	ORP:[Data] QRP	000h - 096h - 120h	-150 - 0 - +150	supports only -100~+100	---	---	---	---	supports only -100~+100	supports only -100~+100	---	supports only -100~+100	supports only -100~+100	---	---	---	---	supports only -100~+100	○	---	---
Iris Mode	QRS:[Data] QRS	0 1	Manual Auto	○	○	○	○	○	○	○	supports only 1(Auto)	○	○	○	○	○	○	○	○	○	○
Iris Control	QRV:[Data] QRV	000h - 3FFh	Close - Open	○	○	○	○	○	○	○	---	○	○	○	○	○	○	○	○	○	○
Linear Table	QSA:00:[Data] QSA:00	0 1	Table A Table B	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Master Black Gamma	QSA:07:[Data] QSA:07	50h - 80h - B0h	-48 - 0 - +48	supports only 78h(-8) - 88h(+8)	---	○	---	---	supports only 78h(-8) - 88h(+8)	supports only 78h(-8) - 88h(+8)	---	supports only 78h(-8) - 88h(+8)	---	○	---	---	---	---	---	---	---
R Black Gamma	QSA:08:[Data] QSA:08	60h - 71h - 80h - 8Fh - 94h	-20 - -15 - 0 - +15 - +20	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
B Black Gamma	QSA:09:[Data] QSA:09	60h - 71h - 80h - 8Fh - 94h	-20 - -15 - 0 - +15 - +20	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Gamma SW	QSA:0A:[Data] QSA:0A	0 1	Off On	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Black Gamma SW	QSA:0B:[Data] QSA:0B	0 1	Off On	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
DRS SW	QSA:0D:[Data] QSA:0D	0 1	Off On	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Black Stretch Level (FFILM MENU & FILM REC)	QSA:0F:[Data] QSA:0F	00h 1Eh	0 30	○	---	---	---	---	---	---	---	○	---	○	---	---	---	---	---	---	---
Dynamic Level (FFILM MENU & FILM REC)	QSA:10:[Data] QSA:10	0 1 2 3 4	200% 300% 400% 500% 600%	○	---	---	---	---	---	---	---	○	---	supports only 0(200%) - 3(500%)	---	---	---	---	---	---	---
Flare SW	QSA:11:[Data] QSA:11	0 1	Off On	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Master Knee Point (EVIDEO MENU)	QSA:20:[Data] QSA:20	22h - 80h - B6h - C2h	70.00% - 93.50% - 107.00% - 110.00% (1step=0.25%)	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	support only 4Ah(80.00%) - B6h(107.00%)	support only 4Ah(80.00%) - C2h(110.00%)	---	---	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	---	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	support only 4Ah(80.00%) - C2h(110.00%)	---	---	---	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	---	---	---
Master Knee Point (FFILM MENU & VIDEO REC)	QSA:21:[Data] QSA:21	62h - 80h - 9Eh - AFh	30% - 60% - 90% - 107%	○	---	---	---	---	---	---	---	○	---	support only 62(30%) - 9E(90%)	---	---	---	---	---	---	---
R Knee Point	QSA:22:[Data] QSA:22	10h - 80h - E4h	-25.00% - 0.00% - +25.00% (1step=0.25%)	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---

ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
B Knee Point	OSA:23:[Data] OSA:23	10h - 80h - E4h	-25.00% - 0.00% - +25.00% (1step=0.25%)	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Master Knee Slope (#VIDEO MENU)	OSA:24:[Data] OSA:24	00h - 63h - C7h	0 - 99 - 199	support only 00h(0) - 63h(99)	support only 00h(0) - 63h(99)	○	---	---	support only 00h(0) - 63h(99)	support only 00h(0) - 63h(99)	---	support only 00h(0) - 63h(99)	support only 00h(0) - 63h(99)	○	---	---	---	support only 00h(0) - 63h(99)	---	---	---
Master Knee Slope (#FILM MENU & VIDEO RED)	OSA:25:[Data] OSA:25	70h - 80h - 85h	150% - 350% - 600% (1step=50%)	○	---	---	---	---	---	---	---	supports only 70h(150%) - 83h(500%)	---	○	---	---	---	---	---	---	---
R Knee Slope (#VIDEO MENU)	OSA:26:[Data] OSA:26	10h - 80h - E3h	-99 - 0 - +99	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
B Knee Slope (#VIDEO MENU)	OSA:27:[Data] OSA:27	10h - 80h - E3h	-99 - 0 - +99	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Auto Knee Point (#VIDEO MENU)	OSA:28:[Data] OSA:28	4Ah - 80h - B6h	80.00% - 93.50% - 107.00% (1step=0.25%)	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Auto Knee Level (#VIDEO MENU)	OSA:29:[Data] OSA:29	70h - 85h	100% - 109% (1step=1%)	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
White Clip Level	OSA:2A:[Data] OSA:2A	00h - 13h - UE160 50h - 60h	90% - 109% - UE160 80% - 109%	○	---	○	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Knee Mode	OSA:2D:[Data] OSA:2D	0 1 2 3 4 5	Off Manual Auto Low Mid High	supports only 0(Off) 1(Manual) 2(Auto)	supports only 0(Off) 1(Manual) 2(Auto)	supports only 0(Off) 1(Manual) 2(Auto)	supports only 0(Off) 2(Auto)	---	supports only 0(Off) 1(Manual) 2(Auto)	supports only 0(Off) 1(Manual) 2(Auto)	---	supports only 0(Off) 1(Manual) 2(Auto)	supports only 0(Off) 1(Manual) 2(Auto)	supports only 0(Off) 1(Manual) 2(Auto)	---	---	---	○	---	---	---
White Clip	OSA:2E:[Data] OSA:2E	0 1	Off On	○	---	○	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Master Detail	OSA:30:[Data] OSA:30	61h - 80h - 9Fh - HR140_HE130 61h - 80h - 9Fh - UB50_UB10 76h - 80h - 8Ah	-31 - 0 - +31 - 0 - +31 - +62 - -5 - 0 - 5	○	○	○	○	---	○	○	---	○	○	○	supports only 81h(1)-91h(17) for Detail Level (L)	supports only 81h(1)-91h(17) for Detail Level (L)	supports only 81h(1)-91h(17) for Detail Level (L)	○	---	supports only 81h(1)-91h(17) for Total Dtail Level (L)	---
H Detail Level	OSA:31:[Data] OSA:31	00h - 3Fh	0 - 63	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Detail Gain(+)	OSA:38:[Data] OSA:38	61h - 80h - 9Fh	-31 - 0 - +31	○	---	○	---	---	○	○	---	○	---	○	---	---	---	---	---	---	---
Detail Gain(-)	OSA:39:[Data] OSA:39	61h - 80h - 9Fh	-31 - 0 - +31	○	---	○	---	---	○	○	---	○	---	○	---	---	---	---	---	---	---
Detail Source	OSA:3B:[Data] OSA:3B	0 1 2 3 4 5	(G+R)/2 (G+B)/2 (2G+B+R)/4 (3G+R)/4 R G	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Detail	OSA:40:[Data] OSA:40	0 1	Off On	○	○	○	○	---	○	○	---	○	---	○	---	---	---	---	---	---	---
Skin Get	OSA:41:[Data] OSA:41	0 1 2	Off On Get	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Detail 1 Center(HD)	OSA:45:[Data] OSA:45	00h - FFh	0 - 255	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Detail 1 Width(HD)	OSA:46:[Data] OSA:46	00h - FFh	0 - 255	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Detail 0 Width(HD)	OSA:47:[Data] OSA:47	00h - FFh	0 - 255	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---

[illegible]

ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
OSD Status	OSA:88:[Data] OSA:88	0 1	Off On	○	---	○	○	---	○	○	---	○	○	○	○	○	○	○	○	○	○
Total Dtail Level High	OSA:B1:[Data] OSA:B1	61h - 80h - 9Fh	-31 - 0 - +31	---	---	---	---	---	---	---	---	---	---	---	supports only 82h(2)~92h(18) for Detail Level (H)	supports only 82h(2)~92h(18) for Detail Level (H)	supports only 82h(2)~92h(18) for Detail Level (H)	---	---	supports only 82h(2)~92h(18) for Total Detail Level (H)	---
Audio	OSA:D0:[Data] OSA:D0	0 1	Off On	○	---	○	○	○	○	○	○	○	○	---	○	○	○	○	---	---	---
Audio Input Type	OSA:D1:[Data] OSA:D1	0 1 2 3 4 5	Mic High Mic Middle Mic Low Line High Line Middle Line Low	supports only 0 (Mic) 3 (Line)	---	---	supports only 0 (Mic) 3 (Line)	supports only 0 (Mic) 3 (Line)	supports only 0 (Mic) 3 (Line)	supports only 0 (Mic) 3 (Line)	---	supports only 0 (Mic) 3 (Line)	---	---	○	○	○	○	---	---	---
Audio Plugin Power	OSA:D2:[Data] OSA:D2	0 1	Off On	○	---	---	○	○	---	○	---	○	---	---	○	○	○	○	---	---	---
Tally Brightness	OSA:D3:[Data] OSA:D3	0 1 2	Low Mid High	○	---	○	○	---	---	○	---	○	---	---	---	---	---	○	---	---	---
Audio Line Input Level	OSA:D4:[Data1]:[Data2] OSA:D4:[Data1]	[Data1] 0 1 [Data2] -4dB 0 1 2 UE160 [Data1] 0 1 [Data2] 0 1	[Data1] CH1/CH3 CH2/CH4 [Data2] -4dB 0dB -20dB UE160 [Data1] Input1 Input2 [Data2] +4dB 0dB	---	---	○	---	---	---	---	---	---	○	---	---	---	---	---	---	---	---
Audio Volume Level	OSA:D5:[Data1]:[Data2] OSA:D5:[Data1]	[Data1] 0 1 2 3 [Data2] 58h - 80h - 94h	[Data1] CH1 CH2 CH3 CH4 [Data2] -40dB - 0dB - 20dB	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 50h(-36dB) - 80(12dB) (step:3dB)	---	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 58h(-40dB) - 94 (20dB) (step:1dB)	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 50h(-36dB) - 80 (12dB) (step:3dB)	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 50h(-36dB) - 80 (12dB) (step:3dB)	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 50h(-36dB) - 80 (12dB) (step:3dB)	---	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 50h(-36dB) - 80 (12dB) (step:3dB)	[Data1] supports 0 (CH1)~3 (CH4) [Data2] supports only 58h(-40dB) - 80 (12dB) (step:1dB)	---	---	---	---	---	---	---	---	
Audio Head Room	OSA:D6:[Data] OSA:D6	0 1 2	FS-12dB FS-18dB FS-20dB	---	---	○	---	---	---	---	---	---	○	---	---	---	---	---	---	---	---
Audio Line CH Select	OSA:D7:[Data] OSA:D7	0 1 2 3	All CH1/CH2 CH3/CH4 None	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---	---
SC Coarse	OSC:[Data] OSC	※	※	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	※	※
H Detail Level H	OSD:0A:[Data] OSD:0A	02h - 3Fh	2 - 63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
V Detail Level H	OSD:0E:[Data] OSD:0E	02h - 1Fh	2 - 31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
H Detail Level L	OSD:12:[Data] OSD:12	01h - 3Eh	1 - 62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
V Detail Level L	OSD:16:[Data] OSD:16	01h - 1Eh	1 - 30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
Detail Band	OSD:1E:[Data] OSD:1E	01 - 05	01 - 05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
Noise Suppress /Crisp	OSD:22:[Data] OSD:22	00h - 3Fh	0 - 63	---	---	○	---	---	---	---	---	---	support only 00 (0)~30 (60)	○	---	---	---	support only 00 (0)~30 (60)	support only 00 (0)~07 (7)	---	---
Level Dependent	OSD:26:[Data] OSD:26	00h - 0Fh	00 - 15	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Matrix (R-G) /Matrix (R-G)_N	OSD:2F:[Data] OSD:2F	00h - 1Fh - 3Eh	-31 - 0 - +31	---	---	○	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
Matrix (R-B) /Matrix (R-B)_N	OSD:30:[Data] OSD:30	00h - 1Fh - 3Eh	-31 - 0 - +31	---	---	○	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
Matrix (G-R) /Matrix (G-R)_N	OSD:31:[Data] OSD:31	00h - 1Fh - 3Eh	-31 - 0 - +31	---	---	○	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
Matrix (G-B) /Matrix (G-B)_N	OSD:32:[Data] OSD:32	00h - 1Fh - 3Eh	-31 - 0 - +31	---	---	○	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---
Matrix (B-R) /Matrix (B-R)_N	OSD:33:[Data] OSD:33	00h - 1Fh - 3Eh	-31 - 0 - +31	---	---	○	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---

ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
Matrix(B-G) /Matrix(B-G)_N	OSD:34:[Data] OSD:34	00h	-31	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	○	---	---
		1Fh	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		3Eh	+31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flare R	OSD:35:[Data] OSD:35	9C	-100	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
		~	~	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FF	-1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		01	+1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flare G	OSD:36:[Data] OSD:36	~	~	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
		64	+100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		9C	-100	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---
		~	~	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FF	-1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flare B	OSD:37:[Data] OSD:37	00	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		01	+1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		~	~	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---
		64	+100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		9C	-100	---	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---
DNR	OSD:3A:[Data] OSD:3A	~	~	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FF	-1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		01	+1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		64	+100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Picture Level /A.Iris Level /Iris Offset	OSD:48:[Data] OSD:48	00	Off Low High	○	---	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
		01	Off On On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		02	Off On On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00h	UE150A,UE160,UE100,UE20,UE4, UE150,HE145,HR140,HE130	○	supports only 2Fh(-3)	○	○	supports only 2Eh(-4)	○	○	supports only 2Eh(-4)	○	○	○	○	○	○	○	○	○	○
		-	-50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
		32h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
		64h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
		00h	UE70series,HE75series, HE70series,HE120	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		-	-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		32h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		64h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00h	HE60,HE50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flesh Noise Suppress	OSD:4B:[Data] OSD:4B	~	~	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		64h	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00h	UB300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		-	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		32h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		64h	100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00	Off	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		01	Low	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		02	High	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		00h	Close	○	---	○	○	○	○	○	---	○	○	---	○	○	○	○	○	○	○
		FFh	Open	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Contrast (Gamma)	OSD:50:[Data] OSD:50	00	Low	---	---	---	---	○	---	---	○	---	---	---	○	○	---	---	○
01	Mid			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
02	High			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	UE20/HE20/UE4			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Output Select	OSD:65:[Data] OSD:65	0	RGB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Y/C is Valid	---	---
		01	YPbPr	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		02	Y/C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		0	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AGC Max Gain	OSD:69:[Data] OSD:69	01	6dB	supports only 01 (6dB)	---	supports only 01 (6dB)	supports only 01 (6dB)	supports only 04 (24dB)	supports only 01 (6dB)	supports only 01 (6dB)	supports only 04 (24dB)	supports only 01 (6dB)	supports only 01 (6dB)	---	supports only 01 (6dB)	supports only 01 (6dB)	supports only 01 (6dB)	supports only 01 (6dB)	supports only 01 (6dB)	supports only 01 (6dB)	supports only 01 (6dB)
		02	12dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		03	18dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		04	24dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		05	30dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		06	36dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		07	42dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		08	48dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Color Correction B_Mg Saturation	OSD:80:[Data] OSD:80	01h	-127	supports only 41h(-63)	supports only 49h(-55)	supports only 01h(-127)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	supports only 01h(-127)	---	---	---	supports only 41h(-63)	○	---	---
		-	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		80h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FFh	+127	BFh(+63)	B7h(+55)	FEh(+126)	BFh(+63)	---	BFh(+63)	BFh(+63)	---	BFh(+63)	BFh(+63)	FEh(+126)	---	---	---	BFh(+63)	---	---	---
Color Correction B_Mg Phase	OSD:81:[Data] OSD:81	01h	-127	supports only 41h(-63)	supports only 49h(-55)	supports only 01h(-127)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	○	---	---	---	supports only 41h(-63)	○	---	---
		-	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		80h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FFh	+127	BFh(+63)	B7h(+55)	FEh(+126)	BFh(+63)	---	BFh(+63)	BFh(+63)	---	BFh(+63)	BFh(+63)	---	---	---	---	BFh(+63)	---	---	---
Color Correction Mg Saturation	OSD:82:[Data] OSD:82	01h	-127	supports only 41h(-63)	supports only 49h(-55)	supports only 01h(-127)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	supports only 01h(-127)	supports only 61h(-31)	supports only 61h(-31)	supports only 61h(-31)	supports only 41h(-63)	○	---	---
		-	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		80h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FFh	+127	BFh(+63)	B7h(+55)	FEh(+126)	BFh(+63)	---	BFh(+63)	BFh(+63)	---	BFh(+63)	BFh(+63)	FEh(+126)	9Fh(+31)	9Fh(+31)	9Fh(+31)	BFh(+63)	---	---	---
Color Correction Mg Phase	OSD:83:[Data] OSD:83	01h	-127	supports only 41h(-63)	supports only 49h(-55)	supports only 01h(-127)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	---	supports only 41h(-63)	supports only 41h(-63)	○	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	○	---	---
		-	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		80h	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		FFh	+12																		



ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
Character Mix Select	OSD:98:[Data1]:[Data2] OSD:98:[Data1]	Data1 0 1 Data2 0 1 2	Output Browser/Video SDI/HDMI, Component Character Mix Select Off On Off By Browser																	supports only Output 0 (Browser/Video), 1 (SDI/HDMI, Compon ent) Character Mix Select 2 (Off By Browser) is Valid When Output is 1 (SDI/HDMI, Compon ent)	
		41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	---	---	○	---	---	---	
Color Correction Mg_R_R Saturation	OSD:9A:[Data] OSD:9A	41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	---	---	○	---	---	---	
Color Correction Mg_R_R Phase	OSD:9B:[Data] OSD:9B	41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	---	---	○	---	---	---	
Color Correction R_R_YI Saturation	OSD:9C:[Data] OSD:9C	41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	supports only 61h(-31) - 9Fh(+31)	supports only 61h(-31) - 9Fh(+31)	supports only 61h(-31) - 9Fh(+31)	○	---	---	---
Color Correction R_R_YI Phase	OSD:9D:[Data] OSD:9D	41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	○	○	○	○	---	---	---
Color Correction R_YI_YI Saturation	OSD:9E:[Data] OSD:9E	41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	supports only 61h(-31) - 9Fh(+31)	supports only 61h(-31) - 9Fh(+31)	supports only 61h(-31) - 9Fh(+31)	○	---	---	---
Color Correction R_YI_YI Phase	OSD:9F:[Data] OSD:9F	41h - 80h - BFh	-63 - 0 - +63	○	supports only 49h(-55) - B7h(+55)	---	○	---	○	○	---	○	○	---	○	○	○	○	---	---	---
V Detail Level	OSD:A1:[Data] OSD:A1	79h - 80h - 87h	-7 - 0 - 7	○	---	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Detail Band /Detail Frequency	OSD:A2:[Data] OSD:A2	79h - 80h - 87h	-7 - 0 - 7	○	---	---	---	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Flesh Tone Noise Suppress /Skin Detail Effect	OSD:A3:[Data] OSD:A3	80h - 9Fh	0 - 31	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Matrix(R-G)	OSD:A4:[Data] OSD:A4	41h - 80h - BFh	-63 - 0 - 63	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Matrix(R-B)	OSD:A5:[Data] OSD:A5	41h - 80h - BFh	-63 - 0 - 63	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Matrix(G-R)	OSD:A6:[Data] OSD:A6	41h - 80h - BFh	-63 - 0 - 63	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Matrix(G-B)	OSD:A7:[Data] OSD:A7	41h - 80h - BFh	-63 - 0 - 63	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Matrix(B-R)	OSD:A8:[Data] OSD:A8	41h - 80h - BFh	-63 - 0 - 63	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Matrix(B-G)	OSD:A9:[Data] OSD:A9	41h - 80h - BFh	-63 - 0 - 63	○	○	---	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Color Correction Cy_Cy_B Saturation	OSD:AA:[Data] OSD:AA	61h - 80h - 9Fh	-31 - 0 - +31	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
Color Correction Cy_Cy_B Phase	OSD:AB:[Data] OSD:AB	41h - 80h - BFh	-63 - 0 - +63	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
Color Correction Cy_B_B Saturation	OSD:AC:[Data] OSD:AC	61h - 80h - 9Fh	-31 - 0 - +31	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
Color Correction Cy_B_B Phase	OSD:AD:[Data] OSD:AD	41h - 80h - BFh	-63 - 0 - +63	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---

ITEM	Command Control / Response / Confirmation	Data	Data Contents																			
			Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE 30	UE20/HE20	UR100	UE100	UE4	UE150/UE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50	
Chroma Level	OSD:B0:[Data] OSD:B0	00h	Off	supports only 00 (Off), 1D (-99%) - E3 (99%)	---	supports only 00 (Off), 1C (-100%) - A8 (40%)	supports only 00 (Off), 1D (-99%) - E3 (99%)	---	supports only 00 (Off), 1D (-99%) - E3 (99%)	supports only 00 (Off), 1D (-99%) - E3 (99%)	---	supports only 00 (Off), 1D (-99%) - E3 (99%)	supports only 00 (Off), 1D (-99%) - A8 (40%)	○	---	---	---	supports only 00 (Off), 1D (-99%) - A8 (40%)	---	---	---	
		1Ch	-100%																			
		80h	0																			
		-	-																			
		A8h	40%																			
		-	-																			
		E3h	99%																			
		AK-UB300	UB300																			
00h	-100%																					
1Dh	-99%																					
-	-																					
80h	0																					
-	-																					
A8h	40%																					
Color Temperature	OSD:B1:[Data] OSD:B1	※	※	---	---	---	---	---	---	---	---	---	※	---	※	※	※	※	---	---	---	---
Night Mode Select	OSD:B2:[Data] OSD:B2	0 1	Manual Auto	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---	---	
i. Zoom	OSD:B3:[Data] OSD:B3	0 1	Disable Enable	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	---	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	---	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	---	○	○	○	---	---	---	---		
HDR	OSD:B4:[Data] OSD:B4	0 1 2 3	Off Low Mid High	---	---	---	---	---	---	---	---	---	---	---	supports only 0 (Off), 1 (Low), 3 (H igh)	supports only 0 (Off), 1 (Low), 3 (H igh)	supports only 0 (Off), 1 (Low), 3 (H igh)	---	---	---	---	
Night-Day Level	OSD:B7:[Data] OSD:B7	0 1 2	Low Mid High	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---	
Digital Extender Magnification	OSD:B8:[Data] OSD:B8	0 1 2 3 4	x1.4 x2.0 x4.0 x6.0 x8.0	---	---	---	---	---	---	---	---	---	---	---	○	○	---	---	---	---	---	
Format_SDI	OSD:B9:[Data] OSD:B9	0h	720/60p	---	---	---	---	---	---	---	---	---	---	---	[59.94Hz] supports only 1h (720/59.94p) 4h (1080/59.94i) 7h (1080/29.97psF) 10h (1080/59.94p) 14h (1080/29.97p)	[59.94Hz] supports only 1h (720/59.94p) 4h (1080/59.94i) 7h (1080/29.97psF) 10h (1080/59.94p) 14h (1080/29.97p)	---	---	---	---		
		1h	720/59.94p																			
		2h	720/50p																			
		3h	1080/60i																			
		4h	1080/59.94i																			
		5h	1080/50i																			
		6h	1080/30psF																			
		7h	1080/29.97psF																			
		8h	1080/25psF																			
		9h	1080/24psF																			
		Ah	1080/23.98psF																			
		Bh	480/59.94i																			
		Ch	480/29.97psF																			
		Dh	576/50i																			
		Eh	576/25psF																			
		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																					
Color Bar Type	OSD:BA:[Data] OSD:BA	0 1 2 3 4	TYPE2: FULL TYPE1: SMPTE TYPE3: AR1B (MULTI) TYPE4: AR1B (UHD MULTI) TYPE5: AR1B (BT.2020)	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	---	○	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	---	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	---	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	---	---	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	V1.21+AW-SFU01 supports only 0 (Type2/Full BAR/EBU), 1 (Type1 (SMPTE))	---	---	---	---	
ALC	OSD:BB:[Data] OSD:BB	0 1	Off On	---	---	---	---	---	---	---	---	---	---	---	○	○	V1.21+AW-SFU01	---	---	---	---	
Equalize	OSD:BC:[Data] OSD:BC	0 1 2	Off Low Cut Voice	---	---	---	---	---	---	---	---	---	---	---	○	○	V1.21+AW-SFU01	---	---	---	---	
Color Bar Title	OSD:BE:[Data] OSD:BE	0 1	Off On	---	---	○	---	---	---	---	---	---	---	---	○	○	V1.21+AW-SFU01	---	---	---	---	
Auto Shutter Limit	OSD:BF:[Data] OSD:BF	0 1 2 3 4	[59.94Hz] [50Hz] Off Off 1/60 1/50 1/100 1/100 1/120 1/125 1/250 1/250	supports only 2 (1/100), 3 (1/120), 4 (1/250)	---	supports only 2 (1/100), 3 (1/120), 4 (1/250)	○	---	○	supports only 2 (1/100), 3 (1/120), 4 (1/250)	---	supports only 2 (1/100), 3 (1/120), 4 (1/250)	---	---	○	○	---	---	---	---	---	
		2 3 4 5 6 7	UE160, UE80, UE50, UE40, UR100, UE100, UE150 1/100 1/120 1/250 1/500 1/1000 1/2000																			
Color Correction B_B_Mg Saturation	OSD:C0:[Data] OSD:C0	61h - 80h - 9Fh	-31 - 0 - +31	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---		
Color Correction B_B_Mg Phase	OSD:C1:[Data] OSD:C1	41h - 80h - BFh	-63 - 0 - +63	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---		
Color Correction B_Mg_Mg Saturation	OSD:C2:[Data] OSD:C2	61h - 80h - 9Fh	-31 - 0 - +31	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---		
Color Correction B_Mg_Mg Phase	OSD:C3:[Data] OSD:C3	41h - 80h - BFh	-63 - 0 - +63	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---		

ITEM	Command Control / Response / Confirmation	Data	Data Contents																		
			Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Color Correction Y1_Y1_G Saturation	OSD:C4:[Data] OSD:C4	61h	-31	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
		80h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		-	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		9Fh	+31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Color Correction Y1_Y1_G Phase	OSD:C5:[Data] OSD:C5	41h	-63	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
		80h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		-	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		BFh	+63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Color Correction Y1_G_G Saturation	OSD:C6:[Data] OSD:C6	61h	-31	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
		80h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		-	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		9Fh	+31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Color Correction Y1_G_G Phase	OSD:C7:[Data] OSD:C7	41h	-63	---	---	---	---	---	---	---	---	---	---	---	○	○	○	---	---	---	---
		80h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		-	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		BFh	+63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E DRS Select	OSD:C8:[Data] OSD:C8	0 1 2 3	Off Low Mid High	---	---	---	---	---	---	---	---	---	---	---	supports only 0(Off), 3(High)	supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)	---	---	---	---
D/C Mode (D/C Board)	OSE:20:[Data] OSE:20	0 1 2 3	Side Out Squeeze Letter Box Link	---	---	---	---	---	---	---	---	---	---	---	---	---	○	○	○	○	
Matrix Type /Preset Matrix	OSE:31:[Data] OSE:31	0 1 2 3 4	Normal EBU Matrix NTSC Matrix User Professional	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	---	○	supports only 0(Normal) 3(User) 4(Professional)	---	supports only 0(Normal) 3(User) 4(Professional)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	---	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	---	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	
		UE160 0 1 2 3 4	UE160 Normal Cinema1 Cinema2 User HD	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		0 1 2 3	Off Low Mid High	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		OSE:32:[Data] OSE:32	0 1 2 3	Off Low Mid High	---	---	---	---	---	---	---	---	---	---	---	---	supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)	---	---
DRS	OSE:33:[Data] OSE:33	0 1 2 3	Off Low Mid High	○	---	---	○	○	○	○	○	○	○	---	supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)	○	○	supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)
		0 1	UE20/HE20/UE4 Off On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		0 1 2 3 4	RGB(NOR) RGB(ENH) YPbPr(422) YPbPr(444) YPbPr(420)	supports only 2(YPbPr(422)) 4(YPbPr(420))	---	supports only 2(YPbPr(422)) 4(YPbPr(420))	UE80 supports only 2(YPbPr(422)) 4(YPbPr(420))  UE50, UE40, UE30 don't support	---	---	supports only 2(YPbPr(422)) 4(YPbPr(420))	---	UE150 supports only 2(YPbPr(422)) 4(YPbPr(420))  HE145 supports only	---	---	---	---	---	---	supports only 0(RGB(NOR)) 1(RGB(ENH)) 2(YPbPr(422)) 3(YPbPr(444))	supports only 0(RGB(NOR)) 1(RGB(ENH)) 2(YPbPr(422)) 3(YPbPr(444))	supports only 0(RGB(NOR)) 1(RGB(ENH)) 2(YPbPr(422)) 3(YPbPr(444))
		OSE:69:[Data]	1	Push Auto	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Digital Zoom	OSE:70:[Data] OSE:70	0 1	Disable Enable	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	---	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	---	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	○	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	---	○	[Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	○	○	○	○	○	
		0 1 2	Mode A Mode B Mode C	○	---	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
		0 1 2 3 4 5 6 7	Off Normal Cinema  UE150A, UE100, UE150, HE145, HR140, HE130 HD SD FILMLIKE1 FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC	supports only 0(HD) 2(FILMLIKE1) 3(FILMLIKE2) 4(FILMLIKE3) 5(FILM REC) 6(VIDEO REC)	---	---	---	---	---	supports only 0(HD) 2(FILMLIKE1) 3(FILMLIKE2) 4(FILMLIKE3)	---	○	supports only 0(HD) 2(FILMLIKE1) 3(FILMLIKE2) 4(FILMLIKE3)	---	---	---	---	supports only 0(HD) 1(SD) 2(FILMLIKE1) 3(FILMLIKE2) 4(FILMLIKE3)	○	○	○
		OSE:73:[Data] OSE:73	0 1	Off On	---	---	---	○	○	---	---	---	---	---	---	○	○	○	---	---	○
Auto F.Mix Max Gain	OSE:74:[Data] OSE:74	00 01 02 03	(Off) 6dB 12dB 18dB	---	---	---	○	○	○	○	---	---	---	---	○	○	○	---	---	○	○
		OSE:75:[Data] OSE:75	0 1	Off On	○	---	---	○	○	○	○	○	○	○	---	○	○	○	○	○	○
		OSE:76:[Data] OSE:76	0100 9999	*1.00 - *99.99	supports only 0100(x1.00) - 1000(x10.00)	---	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 0400(x4.00)	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 1000(x10.00)	---	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 1000(x10.00)	---	supports only 0100(x1.00) - 1200(x12.00)	supports only 0100(*1.00) - 1200(*12.00)	supports only 0100(x1.00) - 1600(x16.00)	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 1000(x10.00)
		OSE:77:[Data] OSE:77	0 1 2 3 4	59.94Hz 0(59.94Hz), 24.00Hz 23.98Hz, 60.00Hz	supports only 0(59.94Hz), 1(50.00Hz), 2(24.98Hz), 3(23.98Hz)	supports only 0(59.94Hz), 1(50.00Hz), 2(24.98Hz)	○	supports only 0(59.94Hz), 1(50.00Hz), 4(60.00Hz) 3(23.98Hz)	supports only 0(59.94Hz), 1(50.00Hz), 2(24.98Hz), 3(23.98Hz)	supports only 0(59.94Hz), 1(50.00Hz), 3(23.98Hz)	supports only 0(59.94Hz), 1(50.00Hz), 4(60.00Hz)	supports only 0(59.94Hz), 1(50.00Hz), 3(23.98Hz)	---	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)	supports only 0(59.94Hz), 1(50.00Hz)
Max Digital Zoom	OSE:7A:[Data] OSE:7A	02 - 18	x2 - x18	supports only 02(x2) - 10(x10)	---	supports only 02(x2) - 10(x10)	supports only 02(x2) - 10(x10)	supports only 02(x2) 03(x3) 04(x4)	supports only 02(x2) - 10(x10)	supports only 02(x2) - 10(x10)	---	supports only 02(x2) - 10(x10)	supports only 02(x2) - 10(x10)	---	supports only 02(x2) - 12(x12)	supports only 02(x2) - 12(x12)	supports only 02(x2) - 16(x16)	supports only 02(x2) - 10(x10)	supports only 02(x2) - 10(x10)	---	---

ITEM	Command Control / Response / Confirmation	Data	Data Contents Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE 30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
OSD Mix /Char	OSE:7B:[Data] OSE:7B	00h 01h 02h 04h 08h 10h 20h 40h 80h	OSD Mix Off SD1 On HDMI On Analog On Video On IP/NDI HX On 12G SD1 1/12G SD1/Optical On 12G SD1 2/MONI/3G SD1/PW On ND1 On 3kbit0:SD1, bit1:HDMI, bit2:Analog, bit3:Video, bit4: IP, bit5:12G SD1/Optical, bit6: MONI, bit7:NDI	supports only 00(OSD Mix Off) 01(3G SD1 1 On) 02(HDMI On) 10(IP/NDI HX On) 20(12G SD1/OPTICAL On) 40(3G SD1 1 On) 80(ND1 On)On	---	UE160 supports only 00(OSD Mix Off) 01(SD1 On) 02(HDMI On) 10(IP/NDI HX On) 20(12G SD1 On) 40(3G SD1/PW On)	UE80 supports only 00(OSD Mix Off) 01(3G SD1 On) 02(HDMI On) 10(NDI HX On) 20(12G SD1 On) 80(ND1 On)	---	supports only 00(OSD Mix Off) 01(3G SD1 On) 10(NDI HX On) 20(12G SD1 On) 80(ND1 On)	supports only 00(OSD Mix Off) 01(3G SD1 On) 02(HDMI On) 10(NDI HX On) 20(12G SD1 On) 80(ND1 On)	---	UE150 supports only 00(OSD Mix Off) 01(SD1 On) 02(HDMI On) 10(IP On) 20(12G SD1/OPTICAL On) 40(MONI On)  HE145 supports only 00(OSD Mix Off) 01(SD1 On) 02(HDMI On) 10(IP On)	supports only 00(OSD Mix Off) 01(SD1 On) 10(IP On)	supports only 00(OSD Mix Off) 01(SD1 On) 10(IP On)	---	---	---	supports only 00(OSD Mix Off) 01(SD1 On) 08(Video On) 10(IP On)	supports only 00(OSD Mix Off) 01(SD1 On) 02(HDMI On) 04(Analog On) 08(Video On)	---	---
Preset Digital Extender Enable	OSE:7C:[Data] OSE:7C On	0 1	Off On	○	---	○	○	---	○	○	---	○	○	---	---	---	---	○	---	---	---
Preset Zoom Mode	OSE:7D:[Data] OSE:7D	0 1	MODE A MODE B	○	---	○	○	---	○	○	---	○	○	---	---	---	---	---	---	---	---
Peak Frequency	OSG:30:[Data] OSG:30	00h - 04h - 1Fh	0 - 4 - 31	---	---	01h(1) - 08h(8)	---	---	---	---	---	---	---	[In case HD format] 00h(0) - 1Fh(31) [In case 4K format] 00h(0) - 04h(4)	---	---	---	---	---	---	---
V Detail Level	OSG:32:[Data] OSG:32	00h - 3Fh	00 - 63	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
V Detail Frequency	OSG:35:[Data] OSG:35	00h - 04h - 1Fh	0 - 4 - 31	---	---	---	---	---	---	---	---	---	---	[In case HD format] 00h(0) - 1Fh(31) [In case 4K format] 00h(0) - 04h(4)	---	---	---	---	---	---	---
R Gain	OSG:39:[Data] OSG:39	418h - 800h - BE8h	-1000 - 0 - 1000	support only 738h(-200) - 8C8h(200)	support only 738h(-200) - 8C8h(200)	---	support only 738h(-200) - 8C8h(200)	support only 7E2h(-30) - 81Eh(30)	support only 738h(-200) - 8C8h(200)	support only 738h(-200) - 8C8h(200)	---	support only 738h(-200) - 8C8h(200)	---	○	---	---	---	---	---	---	---
B Gain	OSG:3A:[Data] OSG:3A	418h - 800h - BE8h	-1000 - 0 - 1000	support only 738h(-200) - 8C8h(200)	support only 738h(-200) - 8C8h(200)	---	support only 738h(-200) - 8C8h(200)	support only 7E2h(-30) - 81Eh(30)	support only 738h(-200) - 8C8h(200)	support only 738h(-200) - 8C8h(200)	---	support only 738h(-200) - 8C8h(200)	---	○	---	---	---	---	---	---	---
Level Dependent SW	OSG:3E:[Data] OSG:3E	0 1	Off On	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Knee Aperture Level	OSG:3F:[Data] OSG:3F	00h - 27h	0 - 39	supports only 00h(0) - 05h(5)	---	○	---	---	supports only 00h(0) - 05h(5)	supports only 00h(0) - 05h(5)	---	supports only 00h(0) - 05h(5)	---	○	---	---	---	---	---	---	---
Detail +Clip	OSG:40:[Data] OSG:40	00h - 3Fh	0 - 63	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Detail -Clip	OSG:41:[Data] OSG:41	00h - 3Fh	0 - 63	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Memory Select	OSG:42:[Data] OSG:42	0 1 2	A B C	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
H Position	OSG:44:[Data] OSG:44	000h - 190h	0 - 100.00% (0.25% step)	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
V Position	OSG:45:[Data] OSG:45	000h - 190h	0 - 100.00% (0.25% step)	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Zebra Effect Memory	OSG:47:[Data] OSG:47	0 1 2 3 4 5 6	A B C A+B A+C B+C A+B+C	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Effect Memory	OSG:48:[Data] OSG:48	0 1 2 3 4 5 6	A B C A+B A+C B+C A+B+C	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Crisp	OSG:49:[Data] OSG:49	41h - 80h - BFh	-63 - 0 - +63	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Master Pedestal	OSG:4A:[Data] OSG:4A	10h - 80h - E3h	-99 - 0 - 99	---	---	---	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
R Pedestal	OSG:4C:[Data] OSG:4C	4E0h - 800h - B20h	-800 - 0 - 800	---	support only 738h(-200) - 8C8h(200)	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
G Pedestal	OSG:4D:[Data] OSG:4D	4E0h - 800h - B20h	-800 - 0 - 800	---	support only 738h(-200) - 8C8h(200)	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B Pedestal	OSG:4E:[Data] OSG:4E	4E0h - 800h - B20h	-800 - 0 - 800	---	support only 738h(-200) - 8C8h(200)	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Skin Tone Q Phase	OSG:4F:[Data] OSG:4F	000h - 167h	0 - 359	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---
Shutter SW	OSG:59:[Data] OSG:59	0 1	Off On	---	---	○	---	---	---	---	---	---	---	○	---	---	---	---	---	---	---



ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50		
			Control and Response to control																				
Genlock Input	OSG:CA:[Data] OSG:CA	0 1	BNC DSUB	----	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----		
H Phase-Coarse	OSG:CB:[Data] OSG:CB	3h -- 8h -- Dh	-5 -- 0 -- +5	----	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----		
		10h -- 80h -- E4h	-100 -- 0 -- +100	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----		
		OSG:CC:[Data] OSG:CC	0 -- -- -- +100	----	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----		
		OSH:[Data] OSH	Off 1/50 1/60 1/100 (NSTC)、1/120 (PAL) 1/120 (NTSC)、1/100 (PAL) 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC(Auto ND) 1/24 1/25 1/30	----	----	----	----	----	----	----	----	----	※	----	※	※	※	※	※	※	※		
Shutter	OSH:[Data] OSH	0h 1h 2h 3h 4h 5h 6h 7h 8h 9h Ah Bh Ch Dh Eh Fh	Off 1/50 1/60 1/100 (NSTC)、1/120 (PAL) 1/120 (NTSC)、1/100 (PAL) 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC(Auto ND) 1/24 1/25 1/30	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
		[Data1] 01 -- 50 -- 99 [Data2] 01 -- 50 -- 99	[Data1] Left Max. Speed -- Stop -- Right Max. Speed [Data2] Down Max. Speed -- Stop -- UP Max. Speed	○	----	○	----	----	○	○	----	○ (UE150) --- (HE145)	----	○	----	----	----	----	----	----	----	----	
		OSI:16:[Data] OSI:16	Y1 G Mg	○	----	○	----	----	○	○	----	○ (UE150) --- (HE145)	----	○	----	----	----	----	----	----	----	----	
		OSI:17:[Data] OSI:17	Y1 G Mg	○	----	○	----	----	○	○	----	○ (UE150) --- (HE145)	----	○	----	----	----	----	----	----	----	----	
		Request Zoom/Focus/Iris Position	OSI:18:[Data1]:[Data2]:[Data3] [Data2] [Data3] 55h -- FFFh [Data2] 55h -- FFFh [Data3] 55h -- FFFh	[Data1]Zoom Position Wide -- Tele [Data2]Focus Position Near -- Far [Data3]Iris Position Close -- Open	----	○	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----	
				OSI:19:[Data1] OSI:19:[Data1]:[Data2] [Data2] 0 1 2 3 4 5 6 [Data2] (Ver.String)	[Data1]System Version Cam Main Network ROM Table Cam FPGA AVIO FPGA Option FPGA [Data2] [Data2] (ex) 01.00-000-00.00	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----	----
				OSI:1A:[Data] OSI:1A	Y1 G Mg Y1+G Y1+Mg G+Mg Y1+G+Mg	○	----	○	----	----	○	○	----	○ (UE150) --- (HE145)	----	supports only 1 (Y1) 2 (G) 3 (Mg) 4 (Y1+G) 5 (Y1+Mg) 6 (G+Mg) 7 (Y1+G+Mg)	----	----	----	----	----	----	----
				OSI:1B:[Data] OSI:1B	-50% -- 0% -- +50% (0.25% step)	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----
		Crop H Position	OSI:1B:[Data] OSI:1B	738h -- 800h -- 8C8h	-50% -- 0% -- +50% (0.25% step)	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	
				OSI:1C:[Data] OSI:1C	-50% -- 0% -- +50% (0.25% step)	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----
				OSI:1D:[Data] OSI:1D	0 -- 100	----	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----
				OSI:1E:[Data] OSI:1E	Inc 1 -- Inc 10	○	○	○	○	----	○	○	----	○	----	supports only 1h (Inc 1)	----	----	----	----	----	----	----
		Color Temperature Dec	OSI:1F:[Data] OSI:1F	1h -- Ah	Dec 1 -- Dec 10	○	○	○	○	----	○	○	----	○	----	supports only 1h (Dec 1)	----	----	----	----	----	----	----
				OSI:20:[Data1]:[Data2] OSI:20	[Data1]00000h -- FFFfFh [Data2]0h 1h 2h	[Data1]OK -- 1048575K [Data2]Valid Under Over	[Data1] supports only 007D0h (2000K) -- 03A98h (15000K) [Data2] supports only 0 (valid)	[Data1] supports only 00954h (2500K) -- 02710h (10000K) [Data2] supports only 0 (valid)	[Data1] supports only 007D0h (2000K) -- 03A98h (15000K) [Data2] supports only 0 (valid)	[Data1] supports only 007D0h (2000K) -- 03A98h (15000K) [Data2] supports only 0 (valid)	----	[Data1] supports only 007D0h (2000K) -- 03A98h (15000K) [Data2] supports only 0 (valid)	----	[Data1] supports only 007D0h (2000K) -- 03A98h (15000K) [Data2] supports only 0 (valid)	----	supports only Confirmation Command	----	----	----	----	----	----	
				OSI:21:[Data] OSI:21	0 1 2	Off On Lock	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----
				OSI:22:[Data] OSI:22	0 1	AE AE+ATW	----	----	----	----	----	----	----	----	○	----	----	----	----	----	----	----	----





ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
Down Convert Master Detail	OSJ:15:[Data] OSJ:15	61h	-31	supports only 81h(1) - 83h(3)	----	○	----	----	----	----	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		80h	0																		
		-	-																		
		9Fh	+31																		
Down Convert Detail Coring	OSJ:16:[Data] OSJ:16	00h	0	supports only 00h(0) - 07h(7)	----		----	----	----	----	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		3Ch	60																		
Down Convert V Detail Level	OSJ:17:[Data] OSJ:17	79h	-7		----	supports only 00h(00) - 8Fh(+63) (UE160)	----	----	----	----	----	supports only 79h(-7) - 87h(+7) (UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		80h	-																		
		-	0																		
		BFh	+63																		
Down Convert Detail Frequency	OSJ:18:[Data] OSJ:18	7Eh	-2	supports only 81h(1) - 83h(3)	----		----	----	----	----	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		80h	-																		
		-	0																		
		82h	+2																		
Down Convert Level Depend.	OSJ:19:[Data] OSJ:19	79h	-7		----		----	----	----	----	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		80h	-																		
		-	0																		
		87h	+7																		
Down Convert Knee Ape Level	OSJ:1A:[Data] OSJ:1A	00h	0		----		----	----	----	----	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		01h	1																		
		02h	2																		
		03h	3																		
		04h	4																		
05h	5																				
Black Gamma Range	OSJ:1B:[Data] OSJ:1B	1	1	○	----	○	----	----	○	○	----	○	----	----	----	----	----	----	----	----	----
		2	2																		
		3	3																		
Color Correction Y1,Y1,G Saturation	OSJ:1C:[Data] OSJ:1C	41h	-63	○	supports only 49h(-55) - B7h(+55)	----	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
		-	-																		
		80h	0																		
		BFh	63																		
Color Correction Y1,Y1,G Phase	OSJ:1D:[Data] OSJ:1D	41h	-63	○	supports only 49h(-55) + B7h(+55)	----	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
		-	-																		
		80h	0																		
		BFh	63																		
12G SDI/Optical Out Output Format	OSJ:1E:[Data] OSJ:1E	01h	720/59.94p	UE150A doesn't support	----	UE160 doesn't support	----	----	UE100 doesn't support	UE100 doesn't	----	UE150 doesn't support	----	----	----	----	----	----	----	----	----
		02h	720/50p	07h 1080/29.97PsF		07h 1080/29.97PsF	07h 1080/29.97PsF	1Fh 2160/60p	20h 1080/60p	1Fh 2160/60p	20h 1080/60p	----	1Fh 2160/60p	20h 1080/60p	----	----	----	----	----	----	----
		04h	1080/59.94i	08h 1080/25PsF		08h 1080/25PsF	08h 1080/25PsF	1Fh 2160/60p	20h 1080/60p	1Fh 2160/60p	20h 1080/60p	----	1Fh 2160/60p	20h 1080/60p	----	----	----	----	----	----	----
		05h	1080/50i	0Ah 1080/23.98PsF		0Ah 1080/23.98PsF	0Ah 1080/23.98PsF	16h 1080/23.98p	16h 1080/23.98p	16h 1080/23.98p	16h 1080/23.98p	----	16h 1080/23.98p	16h 1080/23.98p	----	----	----	----	----	----	----
		07h	1080/29.97PsF	(over 59.94i/p)		(over 59.94i/p)	(over 59.94i/p)					----	(over 59.94i/p)	(over 59.94i/p)	----	----	----	----	----	----	----
		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																		
		1Fh	2160/60p																		
		20h	1080/60p																		
		21h	2160/24p																		
		22h	1080/24p																		
		23h	1080/23.98p																		
		12G SDI/Optical Out HDR Output Select	OSJ:1F:[Data] OSJ:1F	0h	SDR	○	----	○	----	----	----	----	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----
1h	HDR(2020)																				
2h	HDR(709)																				
12G SDI/Optical 3G SDI Out	OSJ:20:[Data] OSJ:20	0h	Level A	○	----	○	----	----	○	○	----	○(UE150) ---(HE145)	----	----	----	----	----	----	----	----	----
		1h	Level B																		
3G SDI Out Output Format	OSJ:21:[Data] OSJ:21	01h	720/59.94p	UE150A doesn't support	----	UE160 doesn't support	UE80 and UE50 don't support 20h 1080/60p	----	UE100 doesn't support 20h 1080/60p	UE100 doesn't support 20h 1080/60p	----	UE150 and HE145 don't support 20h 1080/60p	----	----	----	----	----	----	----	----	----
		02h	720/50p	07h 1080/29.97PsF		07h 1080/29.97PsF	07h 1080/29.97PsF														
		04h	1080/59.94i	08h 1080/25PsF		08h 1080/25PsF	08h 1080/25PsF														
		05h	1080/50i	0Ah 1080/23.98PsF		0Ah 1080/23.98PsF	0Ah 1080/23.98PsF														
		07h	1080/29.97PsF	(over 59.94i/p)		(over 59.94i/p)	(over 59.94i/p)														
		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																		
		20h	1080/60p																		
22h	1080/24p																				
23h	1080/23.98p																				
3G SDI Out HDR Output Select	OSJ:22:[Data] OSJ:22	0	SDR	○	----	○	----	----	----	----	----	○									



ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/UE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
Crop H Position (Mg)	OSJ:33:[Data] OSJ:33	000h	0	supports only 000h(0)	----	○ (1step=2pix)	----	----	○	○	----	UE150 supports only 000h(0) - A00h(2560) (1step=2pix) - HE145 doesn' t support	----	----	----	----	----	----	----	----	----
		780h	1920	AB6h(2742) (1step=2pix)	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
		A00h	2560		----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
		C00	3072		----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Crop V Position (Mg)	OSJ:34:[Data] OSJ:34	000h	0	supports only 000h(0)	----	○	----	----	○	○	----	UE150 supports only 000h(0) - 6C0h(1728) - HE145 doesn' t support	----	----	----	----	----	----	----	----	----
		438h	1080	607h(1543)	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
		5A0h	1440		----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
		6C0	1728		----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
Save Preset Name	OSJ:35:[Data1]:[Data2] OSJ:35:[Data1]	[Data1] 00 - 99 [Data2] xxxxxxxxxxxxxx	[Data1] Preset001 - Preset100 [Data2] Preset Name (Fixed 15 Characters)	[Data2] use only follow characters A-Z, a-z, 1-9, _ Half-Width Space	----	[Data2] use only follow characters A-Z, a-z, 1-9, _ Half-Width Space	[Data2] use only follow characters A-Z, a-z, 1-9, _ Half-Width Space	----	[Data2] use only follow characters A-Z, a-z, 1-9, _ Half-Width Space	[Data2] use only follow characters A-Z, a-z, 1-9, _ Half-Width Space	----	[Data2] use only follow characters A-Z, a-z, 1-9, _ Half-Width Space	----	----	----	----	----	----	----	----	
Delete Preset Name (Single)	OSJ:36:[Data]	[Data] 00 - 99	[Data] Preset001 - Preset100	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Delete Preset Name (All)	OSJ:37	-	----	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Update Preset Thumbnail	OSJ:39:[Data]	[Data] 00 - 99	[Data] Preset001 - Preset100	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Delete Preset Thumbnail (Single)	OSJ:3A:[Data]	[Data] 00 - 99	[Data] Preset001 - Preset100	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Delete Preset Thumbnail (All)	OSJ:3B	-	----	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Preset Name / Preset Thumbnail Counter	OSJ:3C:[Data1] OSJ:3C:[Data1]:[Data2] [Data2] 000000000h - FFFFFFFFFh	[Data1] 00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 0Ah 0Bh [Data2] 000000000h - FFFFFFFFFh	[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 082-090 Preset 091-099 Preset 100 [Data2] 000000000h - FFFFFFFFFh	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Zoom Scale	OSJ:3D OSJ:3D:[Data]	000h - 3E7h	0 - 999	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Operation Lock	OSJ:3E:[Data]	xxxxxxx	Any Information (40 Characters)	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Release Operation Lock	OSJ:3F	-	----	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
Operation Lock Status	OSJ:40 OSJ:40:[Data1]:[Data2] [Data2] xxxxxxx	[Data1] 0 1 [Data2] xxxxxxx	[Data1] Unlock Lock [Data2] Any Information (40 Characters)	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
External Output 1	OSJ:41:[Data] OSJ:41	0 1 2 3	Off R-Tally G-Tally Y-Tally	○	----	○	supports only 0(Off), 1(R-Tally), 2(G-Tally) (UE80, UE50) ----(UE40, UE30)	----	supports only 0(Off), 1(R-Tally), 2(G-Tally) (UE80, UE50)	----	supports only 0(Off), 1(R-Tally), 2(G-Tally) (UE80, UE50)	----	----	----	----	----	----	----	----	----	
External Output 2	OSJ:42:[Data] OSJ:42	0 1 2 3	Off R-Tally G-Tally Y-Tally	○	----	○	supports only 0(Off), 1(R-Tally), 2(G-Tally) (UE80, UE50) ----(UE40, UE30)	----	supports only 0(Off), 1(R-Tally), 2(G-Tally) (UE80, UE50)	----	supports only 0(Off), 1(R-Tally), 2(G-Tally) (UE80, UE50)	----	----	----	----	----	----	----	----	----	
Power On Position	OSJ:45:[Data] OSJ:45	0 1 2 3	None Standby Home Preset	○	----	○	supports only 1(Standby) 2(Home) 3(Preset)	----	supports only 1(Standby) 2(Home) 3(Preset)	----	○	----	----	----	----	----	----	----	----	----	----
Power On Preset Number	OSJ:46:[Data] OSJ:46	00 - 99	Preset001 - Preset100	○	----	○	○	----	○	○	----	○	----	----	----	----	----	----	----	----	----
AWB Color Temperature Inc	OSJ:48:[Data]	1h - Ah	1 - 10	○	----	○	----	----	○	○	----	○	----	----	----	----	----	----	----	----	----
AWB Color Temperature Dec	OSJ:49:[Data]	1h - Ah	1 - 10	○	----	○	----	----	○	○	----	○	----	----	----	----	----	----	----	----	----
AWB Color Temperature / Color Temp ACH	OSJ:4A:[Data1]:[Data2] OSJ:4A	[Data1] 007D0h - 03A98h [Data2] 0 1 2	[Data1] 2000K - 15000K [Data2] Valid Under Over	○	----	supports only 0 Valid	○(Query Only)	----	○	○	----	○	----	----	----	----	----	----	----	----	----
AWB R Gain	OSJ:4B:[Data] OSJ:4B	670h - 800h - 990h	-400 - 0 - 400	○	----	○	----	----	○	○	----	○	----	----	----	----	----	----	----	----	----



ITEM	Command Control / Response / Confirmation	Data	Data Contents																		
			Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Crop Zoom Ratio (YI)	Q5J:98:[Data] Q5J:98	02EE0h - 0C350h	120. 00% - 500. 00%	supports only 02EE0h (120. 00) - 08888h (350. 00)	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio (G)	Q5J:99:[Data] Q5J:99	02EE0h - 0C350h	120. 00% - 500. 00%	supports only 02EE0h (120. 00) - 08888h (350. 00)	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio (Mg)	Q5J:9A:[Data] Q5J:9A	02EE0h - 0C350h	120. 00% - 500. 00%	supports only 02EE0h (120. 00) - 08888h (350. 00)	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio (YI/G/Mg)	Q5J:9B:[Data1]:[Data2]:[Data3] Q5J:9B	[Data1] 02EE0h - 0C350h [Data2] 02EE0h - 0C350h [Data3] 02EE0h - 0C350h	[Data1] Zoom Ratio (YI) 120. 00% - 500. 00% [Data2] Zoom Ratio (G) 120. 00% - 500. 00% [Data3] Zoom Ratio (Mg) 120. 00% - 500. 00%	[Data1, 2, 3] supports only 02EE0h (120. 00) - 08888h (350. 00)	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio Speed Control	Q5J:9C:[Data] Q5J:9C	01 - 49 50 51 - 99	Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed	○	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio Speed Control (YI)	Q5J:9D:[Data] Q5J:9D	01 - 49 50 51 - 99	Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed	○	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio Speed Control (G)	Q5J:9E:[Data] Q5J:9E	01 - 49 50 51 - 99	Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed	○	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio Speed Control (Mg)	Q5J:9F:[Data] Q5J:9F	01 - 49 50 51 - 99	Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed	○	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
Crop H/V Position Speed Control (YI/G/Mg)	Q5J: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 - 99 [Data6] 01 - 50 - 99	[Data1] (YI) Left Max. Speed - Stop - Right Max. Speed [Data2] (YI) 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 - Right Max. Speed [Data6] (Mg) Down Max. Speed - Stop - UP Max. Speed	○	----	○	----	----	○	○	----	○ (UE150) --- (HE145)	----	----	----	----	----	----	----	----	----
Crop Zoom Ratio Speed Control (YI/G/Mg)	Q5J:A1:[Data1]:[Data2]:[Data3]	[Data1] 01 49 50 51 - 99 [Data2] 01 - 49 50 51 - 99 [Data3] 01 - 49 50 51 - 99	[Data1] (YI) Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed [Data2] (G) Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed [Data3] (Mg) Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed	○	----	○	----	----	○	○	----	----	----	----	----	----	----	----	----	----	----
P/T Acceleration	Q5J:A2:[Data] Q5J:A2	0 1	Manual Auto	○	----	○	----	○ (UE80)	----	○	----	----	----	----	----	----	----	----	----	----	----
P/T Rise S-Curve	Q5J:A3:[Data] Q5J:A3	00h 1Eh	0 30	○	----	○	----	○ (UE80) (UE50, UE40, UE30)	○	○	----	----	----	----	----	----	----	----	----	----	----
P/T Fall S-Curve	Q5J:A4:[Data] Q5J:A4	00h 1Eh	0 30	○	----	○	----	○ (UE80) (UE50, UE40, UE30)	○	○	----	----	----	----	----	----	----	----	----	----	----
P/T Rise Acceleration	Q5J:A5:[Data] Q5J:A5	01h - FFh	1 - 255	○	----	○	----	○ (UE80) (UE50, UE40, UE30)	○	○	----	----	----	----	----	----	----	----	----	----	----
P/T Fall Acceleratoin	Q5J:A6:[Data] Q5J:A6	01h - FFh	1 - 255	○	----	○	----	○ (UE80) (UE50, UE40, UE30)	○	○	----	----	----	----	----	----	----	----	----	----	----
Privacy Mode	Q5J:A7:[Data] Q5J:A7	0 1	Off On	○	----	○	----	○	○	○	----	----	----	----	----	----	----	----	----	----	----
Preset Acceleration	Q5J:A8:[Data] Q5J:A8	0 1	Manual Auto	○	----	○	----	○ (UE80)	○	○	----	○	----	----	----	----	----	----	----	----	----
Preset Rise S-Curve	Q5J:A9:[Data] Q5J:A9	00h 1Eh	0 30	○	----	○	----	○ (UE80) (UE50, UE40, UE30)	○	○	----	----	----	----	----	----	----	----	----	----	----
Preset Fall S-Curve	Q5J:AA:[Data] Q5J:AA	00h 1Eh	0 30	○	----	○	----	○ (UE80) (UE50, UE40, UE30)	○	○	----	----	----	----	----	----	----	----	----	----	----





ITEM	Command Control / Response / Confirmation	Data	Data Contents																		
			Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
AGC	OSL:26:[Data] QSL:26	0 1	Off On	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Frame Mix SW	OSL:27:[Data] QSL:27	0 1	Off On	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Frame Mix	OSL:28:[Data] QSL:28	06h 0Ch 12h 18h	+6dB +12dB +18dB +24dB	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Iris Peak Ratio	OSL:29:[Data] QSL:29	00h – 64h	0 – 100	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ATW	OSL:2A:[Data] QSL:2A	0 1	Off On	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
White Balance Mode	OSL:2B:[Data] QSL:2B	0 1 2 3 4	AWB A AWB B PRESET 3200K PRESET 5600K VAR	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Shockless WB SW	OSL:2C:[Data] QSL:2C	0 1	Off On	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Shockless WB Speed	OSL:2D:[Data] QSL:2D	1 – 5	1 – 5	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Auto Shutter	OSL:2E:[Data] QSL:2E	0 1	Off On	----	○	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Temp Bch	OSL:2F:[Data1]:[Data2] QSL:2F	[Data1] 00700h – 03A98h [Data2] 0	[Data1] 2000K – 15000K [Data2] Valid	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Temp Bch Inc	OSL:30:[Data]	1h – Ah	1 – 10	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Temp Bch Dec	OSL:31:[Data]	1h – Ah	1 – 10	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Temp R Gain Bch	OSL:32:[Data] QSL:32	670h 800h – 990h	–400 0 – 400	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Temp B Gain Bch	OSL:33:[Data] QSL:33	670h 800h – 990h	–400 0 – 400	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Color Temp G Axis Bch	OSL:34:[Data] QSL:34	670h – 800h – 990h	–400 – 0 – 400	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
G Gain Rel Control Switch	OSL:35:[Data] QSL:35	0 1	Off On	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain Preset R Gain	OSL:36:[Data] QSL:36	418h 800h – BE8h	–1000 0 – 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain Preset G Gain	OSL:37:[Data] QSL:37	418h 800h – BE8h	–1000 0 – 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain Preset B Gain	OSL:38:[Data] QSL:38	418h – 800h – BE8h	–1000 – 0 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain R Gain Ach	OSL:39:[Data] QSL:39	418h 800h – BE8h	–1000 0 – 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain G Gain Ach	OSL:3A:[Data] QSL:3A	418h 800h – BE8h	–1000 0 – 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain B Gain Ach	OSL:3B:[Data] QSL:3B	418h 800h – BE8h	–1000 0 – 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain R Gain Bch	OSL:3C:[Data] QSL:3C	418h – 800h – BE8h	–1000 – 0 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain G Gain Bch	OSL:3D:[Data] QSL:3D	418h – 800h – BE8h	–1000 – 0 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain B Gain Bch	OSL:3E:[Data] QSL:3E	418h 800h – BE8h	–1000 0 – 1000	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RGB Gain Gain Offset Bch	OSL:3F:[Data] QSL:3F	0 1 738h – 800h – 9C8h	Off On –200 0 – 200	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Master Flare	OSL:40:[Data] QSL:40	800h – 9C8h	0 – 200	----	----	○	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

ITEM	Command Control / Response / Confirmation	Data	Data Contents	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
			Control and Response to control																		
R Flare	OSL:41:[Data] OSL:41	738h	-200	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		800h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		8C8h	200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
G Flare	OSL:42:[Data] OSL:42	738h	-200	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		800h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		8C8h	200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B Flare	OSL:43:[Data] OSL:43	738h	-200	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		800h	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		8C8h	200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Initial Gamma	OSL:44:[Data] OSL:44	8h	4.0	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		9h	4.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Ah	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Knee	OSL:45:[Data] OSL:45	0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Knee Mode	OSL:46:[Data] OSL:46	0	Manual	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
1	Auto			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R White Clip Level	OSL:47:[Data] OSL:47			71h	-15%	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		80h	0%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		8Fh	15%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B White Clip Level	OSL:48:[Data] OSL:48	71h	-15%	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		80h	0%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		8Fh	15%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HI-Color	OSL:49:[Data] OSL:49	0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		HI-Color Level	OSL:4A:[Data] OSL:4A	01h	1	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
20h	32			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
DRS Effect Depth	OSL:4B:[Data] OSL:4B			1	1	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Detail Knee	OSL:4C:[Data] OSL:4C	00h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
0Fh	15			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dark Detail SW	OSL:4D:[Data] OSL:4D			0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Dark Detail	OSL:4E:[Data] OSL:4E	0	0	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
7	7			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Chroma Level SW	OSL:4F:[Data] OSL:4F			0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Chroma Level	OSL:50:[Data] OSL:50	1Ch	-100%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
80h	0%			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
A8h	40%			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert H Detail Level	OSL:51:[Data] OSL:51	80h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		8Fh	63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Detail Peak Frequency	OSL:52:[Data] OSL:52	07Ch	12.4MHz	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
173h	37.1MHz			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert V Detail Frequency	OSL:53:[Data] OSL:53			00h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1Fh	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Detail Crisp	OSL:54:[Data] OSL:54	80h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
8Fh	63			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Detail Clip(+)	OSL:57:[Data] OSL:57			80h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		8Fh	63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Detail Clip(-)	OSL:58:[Data] OSL:58	80h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
8Fh	63			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Detail Knee Aperture Level	OSL:5A:[Data] OSL:5A			00h	0	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		27h	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Detail Knee	OSL:5B:[Data] OSL:5B	00h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
0Fh	15			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Detail Level Dependent SW	OSL:5C:[Data] OSL:5C			0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Detail Level Dependent	OSL:5D:[Data] OSL:5D	00h	00	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
0Fh	15			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Dark Detail SW	OSL:5E:[Data] OSL:5E			0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Dark Detail	OSL:5F:[Data] OSL:5F	0	0	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
7	7			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Skin Tone Detail	OSL:60:[Data] OSL:60			0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	On	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		Down Convert Skin Tone Detail Zebra	OSL:61:[Data] OSL:61	0	Off	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
1	On			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Skin Tone Detail Zebra Effect Memory	OSL:62:[Data] OSL:62			0	A	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	B	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		2	C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		3	A+B	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		4	A+C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		5	B+C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Skin Tone Effect Memory	OSL:63:[Data] OSL:63	0	A	---	---	○	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		1	B	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		2	C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		3	A+B	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		4	A+C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		5	B+C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Down Convert Skin Tone Crisp																					

[illegible]

ITEM	Command Control / Response / Confirmation	Data	Data Contents																		
			Control and Response to control	UE150A	UB50/UB10	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
White Shading W H Saw R	OSL:9C:[Data] QSL:9C	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W H Saw G	OSL:9D:[Data] QSL:9D	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W H Saw B	OSL:9E:[Data] QSL:9E	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W H Para R	OSL:9F:[Data] QSL:9F	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W H Para G	OSL:A0:[Data] QSL:A0	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W H Para B	OSL:A1:[Data] QSL:A1	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W V Saw R	OSL:A2:[Data] QSL:A2	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W V Saw G	OSL:A3:[Data] QSL:A3	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W V Saw B	OSL:A4:[Data] QSL:A4	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W V Para R	OSL:A5:[Data] QSL:A5	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W V Para G	OSL:A6:[Data] QSL:A6	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
White Shading W V Para B	OSL:A7:[Data] QSL:A7	1Ch	-100	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		80h	0																		
		E4h	+100																		
ST2110 Main Video Tx Format	OSL:AA:[Data] QSL:AA	01h	720/59.94p	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		02h	720/50p																		
		04h	1080/59.94i																		
		05h	1080/50i																		
		10h	1080/59.94p																		
		11h	1080/50p																		
		14h	1080/29.97p																		
		15h	1080/25p																		
		20h	1080/60p																		
		22h	1080/24p																		
		23h	1080/23.98p																		
		FFh	DISABLE(query only)																		
		ST2110 Crop Video Tx Format	QSL:AC QSL:AC:[Data]	01h	720/59.94p	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
02h	720/50p																				
04h	1080/59.94i																				
05h	1080/50i																				
10h	1080/59.94p																				
11h	1080/50p																				
14h	1080/29.97p																				
15h	1080/25p																				
20h	1080/60p																				
22h	1080/24p																				
23h	1080/23.98p																				
FFh	DISABLE(query only)																				
ST2110 Monitor Video Tx Format	QSL:AD QSL:AD:[Data]			01h	720/59.94p	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		02h	720/50p																		
		04h	1080/59.94i																		
		05h	1080/50i																		
		10h	1080/59.94p																		
		11h	1080/50p																		
		14h	1080/29.97p																		
		15h	1080/25p																		
		20h	1080/60p																		
		22h	1080/24p																		
		23h	1080/23.98p																		
		FFh	DISABLE(query only)																		
		Camera Number	QSL:AE:[Data] QSL:AE	01	1	----	-----	O	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
99	99																				





[illegible]

### PT command

ITEM	Command	Data	Data Contents	Data Item																	
	Control Confirmation Response			UE150A	UE160	UE80/UE50/UE40/UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50		
P/T Absolute Position Control	#APC[Data1][Data2] #APCaPC[Data1][Data2]	[Data1]0000h - 8000h - FFFFh	[Data1]Pan Position CCW Limit - Center - CW Limit	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2F69(CCW Limit) -D097(CW Limit) Tilt 5555(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 8000(Center) Tilt 8000(Center)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 5555(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 5555(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 5555(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 1C71(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 5555(UP Limit) -8E38(DOWN Limit)	supports only Pan 2D09(CCW Limit) -D2F5(CW Limit) Tilt 5555(UP Limit) -8E38(DOWN Limit)		
		[Data2]0000h - 8000h - FFFFh	[Data2]Tilt Position UP Limit - Center - DOWN Limit																		
P/T Absolute Position Control with Speed	#APS[Data1][Data2][Data3][Data4] aPS[Data1][Data2][Data3][Data4]	[Data1]0000h - 8000h - FFFFh	[Data1]Pan Position CCW Limit - Center - CW Limit	○	○	○	----	○	○	----	○	○	○	○	○	○	○	----	----	----	
		[Data2]0000h - 8000h - FFFFh	[Data2]Tilt Position UP Limit - Center - DOWN Limit																		
		[Data3]00h - 1Dh	[Data3]Preset Speed 1 - 30																		
		[Data4]0 1 2	[Data4]Preset Speed Table Slow Fast Fast																		
Focus Position Control	#AXF[Data] axf[Data]	555h - FFFh	Near - Far	○	○	○	○	○	○	supports only 555	○	○	○	○	○	○	○	○	○	○	
Iris Control	#AXI[Data] axi[Data]	555h - FFFh	Iris Close - Iris Open	○	○	○	○	○	○	supports only 555	○	○	○	○	○	○	○	○	○	○	
Zoom Position Control	#AXZ[Data] axz[Data]	555h - FFFh	Wide - Tele	○	○	○	○	○	○	supports only 555	○	○	○	○	○	○	○	○	○	○	
Delete Preset Memory	#C[Data] s[Data]	00 - 99	Preset001 - Preset100	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Focus Mode	#D1[Data] #D1d1[Data]	0 1	Manual Auto	○	○	○	○	○	○	----	○	○	○	○	○	○	○	○	○	○	
Iris Mode	#D3[Data] #D3d3[Data]	0 1	Manual Auto	○	○	○	○	○	○	----	○	○	○	○	○	○	○	○	○	○	
Day/Night	#D6[Data] #D6d6[Data]	0 1	Day Night	○	○	○ (UE80) ---- (UE50, UE40, UE30)	----	○	○	----	○	○	○	○	○	○	○	----	○	○	
Defroster Control	#D7[Data] d7[Data]	0 1	Off(Auto) On	----	----	----	----	○	----	----	----	0 : Auto 1 : On	----	----	----	----	----	----	----		
Wiper Control	#D8[Data] d8[Data]	0 1	Off On	----	----	----	----	○	----	----	----	0 : Off 1 : Fast (Heater)	----	----	----	----	----	----	----		
Heater/Fan Control	#D9[Data] d9[Data]	0 1	Off(Auto) On	----	----	----	----	○	----	----	----	0 : Auto 1 : On	----	----	----	----	----	----	----		
R-Tally Control	#DA[Data] #DAaA[Data]	0 1	Off On	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Defroster Status	#DS[Data] dS[Data]	0 1	Off On	----	----	----	----	○	----	----	----	○	----	----	----	----	----	----	----	----	
Focus Speed Control	#F[Data] fS[Data]	01 - 49 50 51 - 99	Near Max. Speed - Near Min. Speed Stop Far Min. Speed - Far Max. Speed	○	○	○	○	○	○	----	○	○	○	○	○	○	○	○	○	○	
Fan	#FAN[Data] #FANfAN[Data]	0 1 2 3	Auto High Mid Low	○	○	○ (UE80) ---- (UE50, UE40, UE30)	----	Supports only 0(Auto) 1(On)	○	----	○	Supports only 0(Auto) 1(On)	----	----	----	----	----	----	----		
Fan2	#FA2[Data] #FA2fA2[Data]	0 1 2 3	Auto High Mid Low	○	○	----	----	Supports only 0(Auto) 1(On)	----	----	○	----	----	----	----	----	----	----	----		
Flip Detect Angle	#FDA[Data] #FDAfDA[Data]	3Ch - 78h	60deg - 120deg	○	○	----	----	○	○	----	○	○	----	----	○	○	----	----	----		
Fan Status1	#FS1[Data] fS1[Data]	0 1 2	Off On Error	○	○	○ (UE80) ---- (UE50, UE40, UE30)	----	○	○	----	○	Supports only 0(Off), 1(On)	----	----	----	----	----	----	----		
Fan Status2	#FS2[Data] fS2[Data]	0 1 2	Off On Error	○	○	----	----	○	----	----	○	Supports only 0(Auto), 1(On)	----	----	----	----	----	----	----		
Request Focus Position	#GF[Data] gf[Data]	555h - FFFh - "----"	Near - Far - @Power Off	○	○	○	○	○	○	----	○	○	○	○	○	○	○	○	○	○	



ITEM	Command	Data	Data Contents																
	Control Confirmation Response			UE150A	UE160	UE80/UE50/UE40,UE30	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Tilt Speed Control (High precision)	#HT[Data] hT[Data]	7F00h	-256 : Down Max. Speed	○	○	○	---	○	○	---	○	---	---	---	---	---	---	---	---
		8000h	0 : Stop																
		-	-																
		8100h	+256 : Up Max. Speed																
PTZF SPEED CONTROL 1	#HV1[Data1][Data2][Data3][Data4] hV1[Data1][Data2][Data3][Data4]	[Data1]00	NO CHANGE	○	○	○	---	○	○	---	○	---	---	---	---	---	---	---	---
		01	LEFT MAX. SPEED																
		-	-																
		50	STOP																
		-	-																
		99	RIGHT MAX. SPEED																
		[Data2]00	NO CHANGE																
		01	DOWN MAX. SPEED																
		-	-																
		50	STOP																
		-	-																
		99	UP MAX. SPEED																
		[Data3]00	NO CHANGE																
		01	WIDE MAX. SPEED																
		-	-																
		50	STOP																
		-	-																
		99	TELE MAX. SPEED																
		[Data4]00	NO CHANGE																
01	NEAR MAX. SPEED																		
-	-																		
50	STOP																		
-	-																		
99	FAR MAX. SPEED																		
PTZF SPEED CONTROL 2	#HV2[Data1][Data2][Data3][Data4] hV2[Data1][Data2][Data3][Data4]	[Data1]0000h	NO CHANGE	○	○	○	---	○	○	---	○	---	---	---	---	---	---	---	---
		7F00h	LEFT MAX. SPEED																
		-	-																
		8100h	RIGHT MAX. SPEED																
		[Data2]0000h	NO CHANGE																
		7F00h	DOWN MAX. SPEED																
		-	-																
		8000h	STOP																
		-	-																
		8100h	UP MAX. SPEED																
		[Data3]0000h	NO CHANGE																
		7F00h	WIDE MAX. SPEED																
		-	-																
		8000h	STOP																
		-	-																
		8100h	TELE MAX. SPEED																
		[Data4]00	NO CHANGE																
		01	NEAR MAX. SPEED																
		-	-																
50	STOP																		
-	-																		
99	FAR MAX. SPEED																		
Iris Control	#I[Data] #I iC[Data]	01	Iris Close	○	○	○	○	○	○	---	○	○	○	○	○	○	○	○	○
		-	-																
		99	Iris Open																
Install Positon	#INS[Data] #INS iNS[Data]	01	Desktop Hanging	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Limitation Control (toggle)	#L[Data] l[Data]	Controller -> P/T 1 2 3 4	Tilt Up Tilt Down Pan Left Pan Right	○	○	○	---	○	○	---	○	○	○	○	○	○	○	○	○
		P/T -> Controller 0	Release Set																
Limitation Control	#LC[Data1][Data2] #LC[Data1] iC[Data1][Data2]	[Data1]1 2 3 4	Tilt Up Tilt Down Pan Left Pan Right	○	○	○	○	○	○	---	○	○	○	○	○	○	○	○	○
		[Data2]0 1	Release Set																
Status Lamp	#LMP[Data] #LMP iMP[Data]	01	Disable Enable	○	○	○	○		○	---	○	---	---	---	---	○	---	---	---
Lens Position Information Control	#LPC[Data] #LPC iPC[Data]	01	Off On	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Lens Position Information	#LP[Data] iP[Data1][Data2][Data3]	[Data1]555h	[Data1]Zoom Position Wide	○	○	○	○	○	○	---	○	○	○	○	○	○	○	○	○
		-	-																
		FFFh	Tele																
		[Data2]555h	[Data2]Focus Position Near																
		-	-																
		FFFh	Far																
		[Data3]555h	[Data3]Iris Position Close																
		-	-																
		FFFh	Open																

[illegible]



[illegible]

✂Details

▼OSH

Parameters vary depending on model and System Format

HR140, HE130		UE70series, HE42series, HE40series, HE60, HE50	HE120
(59.94p/59.94i)	F(1/30)	0(OFF),	0(OFF),
0(OFF)	(23.98p)	3(1/100 NTSC)	3(1/100 NTSC)
3(1/100)	0(OFF)	(1/120 PAL),	(1/120 PAL),
4(1/120)	2(1/60)	5(1/250)	5(1/250)
5(1/250)	4(1/120)	–	–
–	5(1/250)	B(Synchro–Scan)	C(ELC)
C(ELC)	–		
	D(1/24)		
(29.97p)	(50p/50i)		
0(OFF)	0(OFF)		
2(1/60)	2(1/60)		
4(1/120)	3(1/120)		
5(1/250)	5(1/250)		
–	–		
C(ELC)	C(ELC)		
	(25p)		
	0(OFF)		
	2(1/60)		
	3(1/120)		
	5(1/250)		
	–		
	C(ELC)		
	E(1/25)		

▼ OSA:87

Parameters vary depending on model

UB50		UB10
[59. 94Hz]	[24Hz]	[59. 94Hz]
04h (1080/59. 94 i)	B6h (1080/48p)	10h (1080/59. 94p)
10h (1080/59. 94p)	B7h (1080/47. 95p)	14h (1080/29. 97p)
14h (1080/29. 97p)	B8h (3840x2160/48p)	17h (3840x2160/29. 97p)
17h (3840x2160/29. 97p)	B9h (3840x2160/47. 95p)	19h (3840x2160/59. 94p)
19h (3840x2160/59. 94p)	1Bh (3840x2160/23. 98p)	90h (3328x2496/59. 94p)
26h (1080/119. 88p)	21h (3840x2160/24p)	94h (3328x2496/29. 97p)
90h (3328x2496/59. 94p)	22h (1080/24p)	98h (4096x2160/59. 94p)
94h (3328x2496/29. 97p)	23h (1080/23. 98p)	9Ch (4096x2160/29. 97p)
98h (4096x2160/59. 94p)	92h (3328x2496/48p)	A0h (3680x2760/59. 94p)
9Ch (4096x2160/29. 97p)	93h (3328x2496/47. 95p)	A2h (3680x2760/29. 97p) )
A5h (4128x2176/59. 94p)	96h (3328x2496/24p)	
A7h (4128x2176/29. 97p)	97h (3328x2496/23. 98p)	[50Hz]
ABh (3536x2656/29. 97p)	9Ah (4096x2160/48p)	11h (1080/50p)
A Eh (5888x3312/29. 97p)	9Bh (4096x2160/47. 95p)	15h (1080/25p)
B2h (5376x3584/29. 97p)	9Eh (4096x2160/24p)	18h (3840x2160/25p)
	9Fh (4096x2160/23. 98p)	1Ah (3840x2160/50p)
[50Hz]	A9h (4128x2176/23. 98p)	91h (3328x2496/50p)
05h (1080/50 i)	ADh (3536x2656/23. 98p)	95h (3328x2496/25p)
11h (1080/50p)	B0h (5888x3312/24p)	99h (4096x2160/50p)
15h (1080/25p)	B1h (5888x3312/23. 98p)	9Dh (4096x2160/25p)
18h (3840x2160/25p)	B4h (5952x3968/24p)	A1h (3680x2760/50p)
1Ah (3840x2160/50p)	B5h (5952x3968/23. 98p)	A3h (3680x2760/25p)
27h (1080/100p)		
91h (3328x2496/50p)		[24Hz]
95h (3328x2496/25p)		1Bh (3840x2160/23. 98p)
99h (4096x2160/50p)		21h (3840x2160/24p)
9Dh (4096x2160/25p)		22h (1080/24p)
A6h (4128x2176/50p)		23h (1080/23. 98p)
A8h (4128x2176/25p)		96h (3328x2496/24p)
AAh (3536x2656/50p)		97h (3328x2496/23. 98p)
ACh (3536x2656/25p)		9Eh (4096x2160/24p)
AFh (5888x3312/25p)		9Fh (4096x2160/23. 98p)
B3h (5376x3584/25p)		A4h (3680x2760/23. 98p)

▼ OSA:87

Parameters vary depending on model

UE150A	UE160	UE80, UR100, UE100, UE150	UE50	UE40, UE30	HE145
[59.94Hz] 01h(720/59.94p) 04h(1080/59.94i) 10h(1080/59.94p) 14h(1080/29.97p) 17h(2160/29.97p) 19h(2160/59.94p)  [50Hz] 02h(720/50p) 05h(1080/50i) 11h(1080/50p) 15h(1080/25p) 18h(2160/25p) 1Ah(2160/50p)  [24Hz]  21h(2160/24p) 22h(1080/24p)  [23.98Hz] 1Bh(2160/23.98p) 23h(1080/23.98p)	[59.94Hz] 01h(720/59.94p) 10h(1080/59.94p) 14h(1080/29.97p) 17h(2160/29.97p) 19h(2160/59.94p) 26h(1080/119.88p)  [50Hz] 02h(720/50p) 11h(1080/50p) 15h(1080/25p) 18h(2160/25p) 1Ah(2160/50p) 27h(1080/100p)  [24Hz] 21h(2160/24p) 22h(1080/24p)  [23.98Hz] 1Bh(2160/23.98p) 23h(1080/23.98p)  [60.00Hz] 1Fh(2160/60p) 20h(1080/60p)	[59.94Hz] 01h(720/59.94p) 04h(1080/59.94i) 07h(1080/29.97psF) 10h(1080/59.94p) 14h(1080/29.97p) 16h(1080/23.98p (over 59.94i/p) ) 17h(2160/29.97p) 19h(2160/59.94p)  [50Hz] 02h(720/50p) 05h(1080/50i) 08h(1080/25psF) 11h(1080/50p) 15h(1080/25p) 18h(2160/25p) 1Ah(2160/50p)  [24Hz]  21h(2160/24p) 22h(1080/24p)  [23.98Hz] 0Ah(1080/23.98psF) 1Bh(2160/23.98p) 23h(1080/23.98p)	[59.94Hz] 01h(720/59.94p) 04h(1080/59.94i) 07h(1080/29.97psF) 10h(1080/59.94p) 14h(1080/29.97p) 16h(1080/23.98p (over 59.94i/p) ) 17h(2160/29.97p)  [50Hz] 02h(720/50p) 05h(1080/50i) 11h(1080/50p) 15h(1080/25p) 08h(1080/25psF) 11h(1080/50p) 15h(1080/25p)  [24Hz] 21h(2160/24p) 22h(1080/24p)  [23.98Hz] 1Bh(2160/23.98p) 23h(1080/23.98p)  [23.98Hz] 0Ah(1080/23.98psF) 1Bh(2160/23.98p) 23h(1080/23.98p)	[59.94Hz] 01h(720/59.94p) 04h(1080/59.94i) 07h(1080/29.97psF) 10h(1080/59.94p) 14h(1080/29.97p) 17h(2160/29.97p)  [50Hz] 02h(720/50p) 05h(1080/50i) 11h(1080/50p) 15h(1080/25p) 18h(2160/25p)  [24Hz] 21h(2160/24p) 22h(1080/24p)  [23.98Hz] 1Bh(2160/23.98p) 23h(1080/23.98p)  [23.98Hz] 0Ah(1080/23.98psF) 1Bh(2160/23.98p) 23h(1080/23.98p)	[59.94Hz] 01h(720/59.94p) 04h(1080/59.94i) 07h(1080/29.97psF) 10h(1080/59.94p) 14h(1080/29.97p) 16h(1080/23.98p (over 59.94i/p) ) 17h(2160/29.97p)  [50Hz] 02h(720/50p) 05h(1080/50i) 11h(1080/50p) 15h(1080/25p) 18h(2160/25p)  [24Hz] 21h(2160/24p) 22h(1080/24p)  [23.98Hz] 1Bh(2160/23.98p) 23h(1080/23.98p)  [23.98Hz] 0Ah(1080/23.98psF) 1Bh(2160/23.98p) 23h(1080/23.98p)

▼ OSA:87 (Continued)

Parameters vary depending on model

UE20	HE20	UE4	HR140	UB300	UE70series	HE40Series
[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 10h (1080/59. 94p) 14h (1080/29. 97p) 17h (2160/29. 97p)	[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 10h (1080/59. 94p) 14h (1080/29. 97p)	[59. 94Hz] 1h (720/59. 94p) 10h (1080/59. 94p) 14h (1080/29. 97p) 17h (2160/29. 97p)	[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/29. 97psF) Ah (1080/23. 98psF) 10h (1080/59. 95p) 14h (1080/29. 97p) 16h (1080/23. 98p)	[59. 94Hz] 00h (720/60p) 01h (720/59. 94p) 04h (1080/59. 94i) 07h (1080/29. 97psF) 0Ah (1080/23. 98psF) 10h (1080/59. 94p) 16h (1080/23. 98p) 17h (2160/29. 97p) 19h (2160/59. 94p) 1Bh (2160/23. 98p) 1Ch (2160/29. 97psF) 1Eh (2160/23. 98psF) 1Fh (2160/60p) 20h (1080/60p) 44h (1080/59. 94i CROP) 50h (1080/59. 94p CROP)	[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/29. 97psF) 10h (1080/59. 94p) 14h (1080/29. 97p) 17h (2160/29. 97p) 80h (Auto)	=== HDMI Model === [59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/29. 97psF) 10h (1080/59. 95p) 14h (1080/29. 97p) 80h (Auto)
[50Hz] 2h (720/50p) 5h (1080/50i) 11h (1808/50p) 15h (1080/25p) 18h (2160/25p)	[50Hz] 2h (720/50p) 5h (1080/50i) 11h (1808/50p) 15h (1080/25p)	[50Hz] 2h (720/50p) 11h (1808/50p) 15h (1080/25p) 18h (2160/25p)	[50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 11h (1080/50p) 15h (1080/25p)	18h (2160/29. 97p) 19h (2160/59. 94p) 1Bh (2160/23. 98p) 1Ch (2160/29. 97psF) 1Eh (2160/23. 98psF) 1Fh (2160/60p) 20h (1080/60p) 44h (1080/59. 94i CROP) 50h (1080/59. 94p CROP)	[50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 11h (1080/50p) 15h (1080/25p) 18h (2160/25p) 80h (Auto)	[50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 11h (1080/50p) 15h (1080/25p) 80h (Auto)
[60Hz] 0h (720/60p) 3h (1080/60i) 20h (1080/60p) 24h (2160/30p) 25h (1080/30p)	[60Hz] 0h (720/60p) 3h (1080/60i) 20h (1080/60p) 25h (1080/30p)	[60Hz] 0h (720/60p) 20h (1080/60p) 24h (2160/30p) 25h (1080/30p)		[50Hz] 02h (720/50p) 05h (1080/50i) 08h (1080/25psF) 11h (1080/50p) 18h (2160/25p) 1Ah (2160/50p) 1Dh (2160/25psF) 45h (1080/50i CROP) 51h (1080/50p CROP)	HE42series [59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/29. 97psF) 10h (1080/59. 94p) 14h (1080/29. 97p) 80h (Auto)	=== SDI Model === [59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/29. 97psF) 14h (1080/29. 97p)
					[50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 11h (1080/50p) 15h (1080/25p) 80h (Auto)	[50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 15h (1080/25p)

▼ OSA:87 (Continued)

Parameters vary depending on model

HE120	HE60	HE50
[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94 i) Bh (480/59. 94 i) 10h (1080/59. 94p) 12h (480/59. 94p)  [50Hz] 2h (720/50p) 5h (1080/50 i) Dh (576/50 i) 11h (1808/50p) 13h (576/50p)	[H Model/59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94 i) Bh (480/59. 94 i) 10h (1080/59. 94p) 12h (480/59. 94p)  [H Model/50Hz] 2h (720/50p) 5h (1080/50 i) Dh (576/50 i) 11h (1080/50p) 8h (1080/25psf) 13h (576/50p)  [S Model/59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94 i) Bh (480/59. 94 i)  [S Model/50Hz] 2h (720/50p) 5h (1080/50 i) Dh (576/50 i)	[N Model] 1h (720/59. 94p) 4h (1080/59. 94 i) Bh (480/59. 94 i)  [E, MC Model] 2h (720/50p) 5h (1080/50 i) Dh (576/50 i)  [H Model/59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94 i) Bh (480/59. 94 i) 10h (1080/59. 94p) 7h (1080/29. 97psF)  [H Model/50Hz] 2h (720/50p) 5h (1080/50 i) Dh (576/50 i) 11h (1808/50p) 8h (1080/25psf)  [S Model/59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94 i) Bh (480/59. 94 i) 7h (1080/29. 97psF)  [S Model/50Hz] 2h (720/50p) 5h (1080/50 i) Dh (576/50 i) 8h (1080/25psf)
HE130		
[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94 i) 7h (1080/29. 97psF) Ah (1080/23. 98psF) 10h (1080/59. 95p) 12h (480/59. 94p) 14h (1080/29. 97p) 16h (1080/23. 98p)  [50Hz] 2h (720/50p) 5h (1080/50 i) 8h (1080/25psF) 11h (1080/50p) 13h (576/50p) 15h (1080/25p)		

▼OSD:B1

Parameters vary depending on model

HR140, HE130		UE70series, HE42series, HE40series	
[Data]	Data Contents	[Data]	Data Contents
000h – 078h	2000K,2010K,2020K,2040K,2050K,2070K,2080K,2090K,2110K,2120K,2140K,2150K,2170K,2180K,2200K,2210K,2230K,2240K,2260K,2280K,2300K,2310K,2330K,2340K,2360K,2380K,2400K,2420K,2440K,2460K,2480K,2500K,2520K,2540K,2560K,2600K,2620K,2640K,2680K,2700K,2720K,2740K,2780K,2800K,2820K,2850K,2870K,2920K,2950K,2970K,3000K,3020K,3070K,3100K,3120K,3150K,3200K,3250K,3270K,3330K,3360K,3420K,3450K,3510K,3570K,3600K,3660K,3720K,3780K,3840K,3870K,3930K,3990K,4050K,4110K,4170K,4240K,4320K,4360K,4440K,4520K,4600K,4680K,4760K,4840K,4920K,5000K,5100K,5200K,5300K,5400K,5500K,5600K,5750K,5850K,6000K,6150K,6300K,6450K,6650K,6800K,7000K,7150K,7400K,7600K,7800K,8100K,8300K,8600K,8900K,9200K,9600K,10000K,10500K,11000K,11500K,12000K,12500K,13000K,14000K,15000K	000h 001h – 04A 04B	2400K 2500K – 9800K 9900K (100K step)

▼OSG:5D

Parameters vary depending on System Frequency

UB300			
59.94p/59.94i	50p/50i	29.97p/23.98p	25p
04h(1/100)	02h(1/60)	00h(1/48)	00h(1/48)
05h(1/120)	04h(1/100)	01h(1/50)	01h(1/50)
06h(1/125)	06h(1/125)	02h(1/60)	02h(1/60)
07h(1/250)	07h(1/250)	03h(1/96)	03h(1/96)
08h(1/500)	08h(1/500)	04h(1/100)	04h(1/100)
09h(1/1000)	09h(1/1000)	05h(1/120)	06h(1/125)
0Ah(1/1500)	0Ah(1/1500)	06h(1/125)	07h(1/250)
0Bh(1/2000)	0Bh(1/2000)	07h(1/250)	08h(1/500)
0Ch(1/180.0deg)	0Ch(1/180.0deg)	08h(1/500)	09h(1/1000)
0Dh(1/172.8deg)	0Dh(1/172.8deg)	09h(1/1000)	0Ah(1/1500)
0Eh(1/144.0deg)	0Eh(1/144.0deg)	0Ah(1/1500)	0Bh(1/2000)
0Fh(1/120.0deg)	0Fh(1/120.0deg)	0Bh(1/2000)	0Ch(1/180.0deg)
10h(1/90.0deg)	10h(1/90.0deg)	0Ch(1/180.0deg)	0Dh(1/172.8deg)
11h(1/45.0deg)	11h(1/45.0deg)	0Dh(1/172.8deg)	0Eh(1/144.0deg)
		0Eh(1/144.0deg)	0Fh(1/120.0deg)
		0Fh(1/120.0deg)	10h(1/90.0deg)
		10h(1/90.0deg)	11h(1/45.0deg)
		11h(1/45.0deg)	

▼OAW

Parameter meaning var between control command and response for confirmation command

Control		Confirmation	
0	ATW	0	ATW
1	AWC A	1	---
2	AWC B	2	AWC A
3	ATW	3	AWC B
4	Preset 3200K	4	Preset 3200K
5	Preset 5600K	5	Preset 5600K
6	Preset 4500K	6	Preset 4500K
7	Preset 6000K	7	Preset 6000K
8	Preset 2800K	8	Preset 2800K
9	Var	9	Var

Parameters vary depending on model

		UE150A, UE160, UE80, UE50, UE40, UE30, UR100, UE100, UE150, HE145, HR140, UE70series, HE42series, HE40series, HE130, HE120	UE20/HE20/UE4	HE60/HE50		UB50,UB10
Control	0	ATW	ATW	ATW	0	ATW
	1	AWC A	AWC A	AWC A	1	AWC A
	2	AWC B	AWC B	AWC B	2	AWC B
	3	ATW	ATW	ATW	3	---
	4	Preset 3200K	Preset 3200K	---	4	Preset 3200K
	5	Preset 5600K	Preset 5600K	---	5	Preset 5600K
	6	---	---	---	6	---
	7	---	---	---	7	---
	8	---	---	---	8	---
	9	Var	---	---	9	Var
Confirmation	0	ATW	ATW	ATW	0	ATW
	1	---	---	---	1	---
	2	AWC A	AWC A	AWC A	2	AWB A
	3	AWC B	AWC B	AWC B	3	AWB B
	4	Preset 3200K	Preset 3200K	---	4	Preset 3200K
	5	Preset 5600K	Preset 5600K	---	5	Preset 5600K
	6	---	---	---	6	---
	7	---	---	---	7	---
	8	---	---	---	8	---
	9	Var	---	---	9	Var
					F	Oter

▼OSC

Parameter meaning var between control command and response for confirmation command

Control		Confirmation	
1	2( 90deg)	1	---
2	3(180deg)	2	1( 0deg)
3	4(270deg)	3	2( 90deg)
4	1( 0deg)	4	3(180deg)
5	---	5	4(270deg)

▼#QSV

Parameters vary depending on model

UE150A	UE80	UE50	UE40,UE30	UR100	UE100	UE150, HE145	HR140
[Data1] Servo CPU Camera CPU ZYNQ Network Main/Network CPU ZYNQ Logic ZYNQ R5T Lens CPU ZYNQ R5R ZYNQ Enc BE EEPROM [Data2] MAJOR VERSION [Data3] MINOR VERSION [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU Camera CPU ZYNQ Network Main/Network CPU ZYNQ Logic reserve Lens CPU reserve ZYNQ Enc BE EEPROM [Data2] MAJOR VERSION [Data3] MINOR VERSION [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU Camera CPU reserve Main/Network CPU AVIO FPGA reserve Lens CPU reserve reserve BE EEPROM [Data2] MAJOR VERSION [Data3] MINOR VERSION [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU Camera CPU reserve Main/Network CPU reserve Lens CPU reserve reserve BE EEPROM [Data2] MAJOR VERSION [Data3] MINOR VERSION [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU Camera CPU ZYNQ Network Main/Network CPU ZYNQ Logic reserve Lens CPU ZYNQ R5R ZYNQ Enc BE EEPROM [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU Camera CPU ZYNQ Network Main/Network CPU ZYNQ Logic ZYNQ R5T Lens CPU ZYNQ R5R ZYNQ Enc BE EEPROM [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU Camera CPU COM FPGA Main/Network CPU AVIO FPGA Interface CPU Lens CPU Interface EEPROM reserved BE EEPROM [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL	[Data1] Servo CPU CameraMain CPU COM FPGA Network CPU AVIO FPGA Interface CPU Lens FPGA Interface EEPROM reserve reserve [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [data6] NTSC PAL

▼#QSV(Continued)

Parameters vary depending on model

UE70, HE75, HE70series	HE130	HE120	HE60	HE50
[Data1] Servo CPU Cam CPU FPGA BE CPU reserve Interface CPU reserve Interface EEPROM reserve reserve [Data2] 00 [Data3] Version [Data4] L  [Data5] 00 [data6] NTSC PAL	[Data1] Servo CPU CameraMain CPU COM FPGA Network CPU AVIO FPGA Interface CPU Lens FPGA Interface EEPROM reserve reserve [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (Revision) [data6] NTSC PAL	[Data1] Servo CPU CameraMain CPU Frontend FPGA Network CPU Backend FPGA Interface CPU Lens FPGA Interface EEPROM Camera EEPROM Lens EEPROM [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (Revision) [data6] NTSC PAL	[Data1] Pan Tilt CPU Camera CPU Camera FPGA Network CPU OUT FPGA reserve reserve reserve Camera EEPROM reserve [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (Revision) [data6] NTSC PAL Other	[Data1] Pan Tilt CPU Camera CPU Camera FPGA Network CPU Out FPGA reserve reserve reserve reserve reserve [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (Revision) [data6] NTSC PAL Other

▼#RER

The content of the error varies depending on the model

UE150A	UE160	UE80, UE50, E40,UE30	UE100	UE150, HE145
03h Motor Driver Error 21h System Error 22h Spec Limit Over 24h NET Life-monitoring Error 29h CAM Life-monitoring Error 31h Fan1 error 33h High Temp 36h Low Temp 40h Temp Sensor Error 41h Lens Initialize Error 42h PT. Initialize Error 43h PoE++ Software auth. Timeout 50h MR Level Error 52h MR Offset Error 55h:PT. Gear Error 57h Gyro Error 58h PT. Initialize Error	00h No Error 03h Motor Driver Error 21h System Error 22h Spec Limit Over 25h BE Life-monitoring Error 30h NET 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 43h PoE++ Software auth. Timeout 50h MR Level Error 52h MR Offset Error 55h PT. Gear Error 57h Gyro Error 58h PT. Initialize Error 60h Update Firmware Error 61h Update Hardware Error 62h Update Error 63h Update Fan Error	00h No Error 03h Motor Driver Error 21h System Error 22h Spec Limit Over 24h NET Life-monitoring Error 25h BE Life-monitoring Error 29h CAM Life-monitoring Error 31h Fan1 error(UE80) 33h High Temp 36h Low Temp 40h Temp Sensor Error 41h Lens Initialize Error 42h PT. Initialize Error 43h PoE++ Software auth. Timeout (UE80) 45h PoE+ Software auth. Timeout (UE50/UE40/UE30) 47h USB Streaming Error (UE50/UE40/UE30) 50h MR Level Error 52h MR Offset Error 57h Gyro Error 58h PT. Initialize Error	03h Motor Driver Error 21h System Error 22h Spec Limit Over 24h NET Life-monitoring Error 29h CAM Life-monitoring Error 31h Fan1 error 33h High Temp 36h Low Temp 40h Temp Sensor Error 41h Lens Initialize Error 42h PT. Initialize Error 43h PoE++ Software auth. Timeout 50h MR Level Error 52h MR Offset Error 57h Gyro Error 58h PT. Initialize Error	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
			UR100	
			03h Motor Driver Error 21h System Error 22h Spec Limit Over 24h NET Life-monitoring Error 25h BE Life-monitoring Error 29h CAM Life-monitoring Error 31h Fan1 error 32h Fan2 error 33h High Temp 36h Low Temp 39h Wiper Error 40h Temp Sensor Error 41h Lens Initialize Error 42h PT. Initialize Error 43h PoE++ Software auth. Timeout 50h MR Level Error 52h MR Offset Error 57h Gyro Error 58h PT. Initialize Error	

▼#RER(Continued)

The content of the error varies depending on the model

HR140	UE70series, HE42 Series, HE40 Series	HE120	HE50
00h: Normal	00h Normal(No Error)	00h: Normal	00h: Normal
03h: Motor Driver Error	03h Motor Driver Error	03h: Motor Driver Error	03h: Motor Driver Error
04h: Pan Sensor Error	04h Pan Sensor Error	04h: Pan Sensor Error	04h: Pan Sensor Error
05h: Tilt Sensor Error	05h Tilt Sensor Error	05h: Tilt Sensor Error	05h: Tilt Sensor Error
06h: Controller RX Over run Error	06h IF/FPGA UART Over run Error	06h: Controller RX Over run Error	06h: Controller RX Over run Error
07h: Controller RX Framing Error	07h IF/FPGA UART Framing Error	07h: Controller RX Framing Error	07h: Controller RX Framing Error
08h: Network RX Over run Error	08h IF/NET UART Over run Error	08h: Network RX Over run Error	08h: Network RX Over run Error
09h: Network RX Framing Error	09h IF/NET UART Framing Error	09h: Network RX Framing Error	09h: Network RX Framing Error
17h: Controller RX Command Buffer Overflow	17h IF/FPGA UART Buffer Overflow	17h: Controller RX Command Buffer Overflow	17h: Controller RX Command Buffer Overflow
19h: Network RX Command Buffer Overflow	19h IF/NET UART Buffer Overflow	19h: Network RX Command Buffer Overflow	19h: Network RX Command Buffer Overflow
21h: System Error	21h System Error(IF/SERVO Error)	21h: System Error	21h: System Error
22h: Spec Limit Over	22h PT Limit Over	22h: Spec Limit Over	22h: Spec Limit Over
23h: FPGA Config Error	24h NET Life-monitoring Error	23h: FPGA Config Error	23h: FPGA Config Error
25h: CAMERA communication Error	25h BE Life-monitoring Error	24h: Network communication Error	24h: Network communication Error
26h: CAMERA RX Over run Error	26h IF/BE UART Buffer Overflow	25h: Lens Initialize Error	30h: Lvds_Adjustmet_NG
27h: CAMERA RX Framing Error	27h IF/BE UART Framing Error		31h: Bar_Signal_Check_NG
28h: CAMERA RX Command Buffer Overflow	28h IF/BE UART Buffer Overflow		
31h: Fan1 Error	29h CAM Life-monitoring Error		
32h: Fan2 Error			
33h: High Temp			
36h: Low Temp			
39h: Wiper Error			
40h: Temp Sensor Error			
41h: Lens Initialize Error			
42h: PT. Initialize Error			
50h: MR Level Error			
51h: GYRO Initial Error			
52h: MR Offset Error			
53h: Origin Offset Error			

▼XSF

Parameter meaning var between control command and response for confirmation command

UE160

Control		Confirmation	
0	---	0	Scene1
1	Scene1	1	Scene2
2	Scene2	2	Scene3
3	Scene3	3	Scene4
4	Scene4	4	Scene5
5	Scene5	5	Scene6
6	Scene6	6	Scene7
7	Scene7	7	Scene8
8	Scene8	8	OFF
9	OFF	9	---

UE150A, UE80, UE50, UE40, UE30, UR100, UE100, UE150, HE145, HR140, UE70series, HE42series, HE40series, HE130, HE120, HE60, HE50

Control		Confirmation	
0	---	0	Scene1(Manual1)
1	Scene1(Manual1)	1	Scene2(Manual2)
2	Scene2(Manual2)	2	Scene3(Manual3)
3	Scene3(Manual3)	3	Scene4(FullAuto)
4	Scene4(FullAuto)	4	---

UB50,UB10

Control		Confirmation	
0	---	0	Scene1
1	Scene1	1	Scene2
2	Scene2	2	Scene3
3	Scene3	3	Scene4
4	Scene4	4	Scene5
5	Scene5	5	Scene6
6	Scene6	6	Scene7
7	Scene7	7	Scene8
8	Scene8	8	Other
9	Other	9	---

UE4

Control		Confirmation	
0	---	0	Full Auto
1	Full Auto	1	Shutter Priority
2	Shutter Priority	2	Manual
3	Manual	3	---

UB300

Control		Confirmation	
0	---	0	current
1	current	1	Scene1
2	Scene1	2	Scene2
3	Scene2	3	Scene3
4	Scene3	4	Scene4
5	Scene4	5	Scene5
6	Scene5	6	Scene6
7	Scene6	7	Scene7
8	Scene7	8	Scene8
9	Scene8	9	---

UE20/HE20

Control		Confirmation	
0	---	0	Scene1
1	Scene1	1	Scene2
2	Scene2	2	Full Auto
3	Full Auto	3	---

▼#O

Parameter meaning var between control command and response for confirmation command

Control		Confirmation	
0	Power Off	0	Power Off
1	Power On	1	Power On
3	---	3	Starting