# HD/4K Integrated Camera Interface Specifications

Compatible model Table Feb. 1, 2022

Connected Solutions Company Panasonic Corporation

#### Camera command

Gamera co																	
ITEM	Command Control / Response /	Data	Data Contents Control and			I	T	UE450 (UE445	T	T	T					T	
	Confirmation		Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Color Bar	DCB: [Data] QBR OBR: [Data]	0 1	Camera Color Bar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Color Bar Setup	DCS: [Data] QCS OCS: [Data]	0 1	0.0% 7.5%											0	0		
Menu Down	DDW: [Data]	1h Ah	1step 10step	supports only 1h(1step)	0	supports only 1h(1step)	0	0	0	0	0	0	0				
Menu Enter	DIT:[data]	1	Enter	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Menu Left	DLT: [Data]	1h Ah	1step 10step	supports only 1h(1step)	0	supports only 1h(1step)				0	0	***					
Menu Cancel	DPG: [Data]	1	Cance I	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Menu Right	DRT: [Data]	1h Ah	1step 10step	supports only 1h(1step)	0	supports only 1h(1step)				0	0						
Menu Up	DUP: [Data]	1h Ah	1step 10step	supports only 1h(1step)	0	supports only 1h(1step)	0	0	0	0	0	0	0				
Menu On/Off	DUS: [Data] QUS OUS: [Data]	0 1	Off On	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Focus (Far)	HFF		Move to far							0	0	0	0			0	0
Focus (Near)	HFN		Move to near							0	0	0	0			0	0
Focus (Stop)	HFS H7T		Stop focus							0	0	0	0			0	0
Zoom (Tele) Zoom (Stop)	HZI HZS		Move to tele Stop zoom							0	0	0	0			0	0
Zoom (Wide)	HZW		Move to wide							0	0	0	0			0	Õ
Zooiii (ii i de)	11211	0	Slow							C	C	0	0			0	0
Focus Speed	LFS: [Data]	9	Fast								Ö	Ö	Ö				
Zoom Speed	LZS: [Data]	0 - 9	Slow - Fast							0	0	0	0			0	0
Focus Mode	OAF:[Data] QAF	0 1	Manua I Auto	0	0	0		0	0		0	0	0	0	0	0	0
ABC/ABB SET	OAS		ABC/ABB Start	0		0		0	0	0	0	0	0	0	0		·
	OAW: [Data]	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*
White Balance Mode	QAW		Off	^	~	~	<u></u>	~			^	~	^	~	~	^	^
Focus Adjust With PTZ	OAZ:[Data] QAZ	0 1 00h	0n -150	O				0	O supports only		0	0		Supports only	0	0	0
B Pedestal	OBD: [Data] QBD	1Eh - 3Ch	0 - +150						supports only 0A (-100) - 32 (+100)					0A (-100) -32 (+100)			
		000h - 096h - 12Ch	-150 - 0 - +150						0		0	0	0	0	0	0	0
B Gain	OBI:[Data] QBI	000h  096h	<u>UE70series, HE75series, HE70serie</u> <u>s, HE60, HE50</u> -30 - 0														
		12Ch	30														
		00h _	-30						0		0	0	0	0	0	0	0
1		1Eh	0		1	1								1	1	1	1
		-	-													1	1 '
		3Ch	+30													1	1 '
B Gain	OBG: [Data] QGB		HR140, HE130, HE120														
	OGB: [Data]	00h - 1Eh	-150 - 0														
		- 3Ch	- 150														
	<b>I</b>	000h	-150			supports only		supports only	supports only					supports only	0		
D. D. d. de l	OBP: [Data] QBP	- 096h	- 0			-100~+100		-100~+100	-100~+100					-100~+100			
B Pedestal	QBP	-	-											1		1	
		12Ch	+150			1								1		1	1
			•			•	•	•	•	•	•		•	•			

	Command		Data Contents	1													
ITEM	Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	Contirmation	00h	Response to contol -3		supports only		supports only				supports only	supports only	supports only		supports only	supports only	supports only
		-	-		03h (0)		03h (0)				00h (-3)	00h (-3)	00h (-3)		00h (-3)	00h (-3)	00h (-3)
Chroma Level	OCG: [Data]	03h -	0 -		- 0Dh (10)		0Dh (10)				06h (3)	06h (3)	06h (3)		06h (3)	06h (3)	- 06h (3)
Offrolla Level	QCG	06h	+3														
		0Dh	10														
	ODE: [Data]	0	0ff					On mean x1.4	0	0	0	0	0	0			
Digital Extender	QDE [Data]	1	0n														
		0	0ff	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	Low High														
			UE100, UE150, HE145, HR140,														
		0	<u>UB300, HE130</u>														
Detail	ODT: [Data] QDT	2	Off On														
	QD1		0n														
		0	<u>UE20/HW20/UE4</u>														
		2	1														
		3	2 3														
		0	Normal Fan Error	0		0		0	supports only O(Normal)	supports only O(Normal)					supports only O(Normal)		
	OFR	2	Other Error						1 (Fan Error)	1 (Fan Error)					1 (Fan Error)		
Error Information	OER: [Data]																
Flip Status	QFS OFS: [Data]	0	Normal Flip			0		0	0					0	0		
	UF3. [Data]	0	Clear	UE80 supports		supports only		supports only		supports only	supports only						
		1 2	1/4 ND 1/16 ND	only Oh:		0h: Clear (Through)		0h: Clear (Through)	Oh: Clear 3h: 1/64 ND	Oh: Clear 1h: 1/4 ND	Oh: Clear 1h: 1/4 ND	Oh: Clear 1h: 1/4 ND		Oh: Clear 3h: 1/64 ND	Oh: Clear 1h: 1/4 ND		
ND Filter	OFT: [Data]	3	1/64 ND 1/8 ND	Clear (Through) 1h: 1/4 ND		1h: 1/4 ND		1h: 1/4 ND	4h: 1/8 ND	2h: 1/16 ND 3h: 1/64 ND	2h: 1/16 ND	2h: 1/16 ND 3h: 1/64 ND		3h: 1/64 ND 4h: 1/8 ND	2h: 1/16 ND 3h: 1/64 ND		
ND I I I LEI	QFT	8	Auto ND	2h: 1/16 ND		2h: 1/16 ND 3h: 1/64 ND		2h: 1/16 ND 3h: 1/64 ND		311. 1/04 ND	3h: 1/64 ND 8h: Auto ND	8h: Auto ND			311. 1/04 ND		
				3h: 1/64 ND 8h: Auto ND													
-		01h	Low							0							
		01h 04h 08h 06h	Low Mid														
Gain Select	OGS: [Data] QGS	08h	High S. Gain1														
	dus	0Ch 0Eh	S. Gain2 S. Gain3														
		05h	−3dB	supports only	supports only	supports only	supports only	supports only	supports only		supports only	supports only	supports only	supports only	supports only	supports only	supports only
		-	-	08 (0dB) -32 (42dB),	08 (0dB) -32 (42dB),	08 (0dB) -32 (42dB),	08 (0dB) -32 (42dB)	05 (-3dB) -	08 (0dB) -32 (42dB).		08h:0dB-38h:48dB	08h:0dB-38h:48dB	08h:0dB-38h:48dB	08 (0dB) -2C (36dB),	08 (0dB) -1A (18dB),	08 (0dB) -1A (18dB),	08 (0dB) -1A (18dB),
		08h -	OdB -	80 (AGC On)	80 (AGC On)	80 (AGC On)		32 (42dB), 80 (AGC On)	80 (AGC On)		80h:AGC On	80h:AGC On		80 (AGC On)	80 (AGC On)	80 (AGC On)	80 (AGC On)
Gain	OGU: [Data]	11h	9dB _								Use only 3dB step.	Use only 3dB step.	Use only 3dB step.				
dam	QGU	1Ah	18dB								всер.	в сор.	осор.				
		- 38h	48dB														
		80h	AGC On														
Horizontal Phase	OHP: [Data]	000h	-206	○ (UE80) (UE50, UE40)		0		0	0		0	0		0	0	0	0
	QHP	3FFh	+49	(0000, 0040)													
Model Number	QID OID: [Data]		Returns model No. by ASCII	U	U	U	U	0	0	0	0	0	0	U	U	U	0
		0Eh (=14) -	F1. 4	0	0	0		0		0							
		1Ch (=28)	F2. 8			1	1			1			1				
Request Iris F No.	QIF OIF:[Data]	38h (=56)	F5. 6			1	1			1							
	oir.[Data]	A0h (=160)	F16			1	1			1			1				
		- FFh	- Close			1	1			1							
-		0	Off	0		0	+	0	0		0	0	0	0			
		i	0n			1	1	-		1	[	_	[-	_			
		HR140	HR140 Off			1	1			1			1				
		0 1	0IS			1	1			1			1				
		2	Dynamic I.S. System			1	1			1							
018	OIS: [Data]	<u>UE100</u>	<u>UE100</u>			1	1			1							
013	QIS	0 1	Off OIS			1	1			1							
		2 3	Hybrid (STABLE) Hybrid (PAN/TILT)			1	1			1			1				
		-				1	1			1							
		<u>UE80</u> 0	<u>UE80</u> 0ff			1	1			1							
		1 2	OIS (STABLE) OIS (PAN/TILT)			1	1			1							
		L	VIO (IMM/IICI)	l		1	1			1			1	l			

	Command	1	Data Contents	1													1
ITEM	Command Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	Contirmation	001h	Response to contol See right						(59Hz)		(59. 94Hz)	(59, 94Hz)	(59, 94Hz)	(59Hz)	(59Hz)	(59Hz)	(N Model)
		OFFh							001h (60. 15Hz)		001h (59. 94Hz)	001h (59. 94Hz)	001h (59. 94Hz)	001h (60. 15Hz)	001h (60. 17Hz)	001h (60. 17Hz)	001h (60. 17Hz)
		OFFII							OFFh (642. 21Hz)		0FFh (660. 09Hz)	0FFh (660. 09Hz)	0FFh (660. 09Hz)	0FFh (642. 21Hz)	0FFh (646. 21Hz)	0FFh (644, 25Hz)	0FFh (644, 25Hz)
Synchro Scan	OMS: [Data] QMS								(50Hz)		(50Hz	(50Hz	(50Hz	(50Hz)	(50Hz)	(50Hz)	(E, MC Model)
									001h (50. 15Hz)		001h (50. 00Hz)	001h (50. 00Hz)	001h (50. 00Hz)	001h (50. 15Hz)	001h (50. 19Hz)	001h (50. 16Hz)	001h (50. 16Hz)
									0FFh (535. 71Hz)		0FFh (570. 12Hz)	0FFh (570. 12Hz)	0FFh (570. 12Hz)	0FFh (535. 71Hz)	0FFh (537. 13Hz)	0FFh (542. 42Hz)	0FFh (542, 42Hz)
		00h	-150						supports only					supports only	0		
	ORD: [Data]	_ 1Eh	- 0						0A (-100)					0A (-100)			
R Pedestal	ORD:[Data] QRD		+150						32 (+100)					32 (+100)			
		00h -	-30						0		0	0	0	0	0	0	0
		1Eh	0														
	ORG: [Data]	3Ch	+30														
R Gain	QGR		HR140, HE130, HE120														
	OGR: [Data]	00h _	-150														
		1Eh	0														
		3Ch	150							1							
<del>                                     </del>	<del>                                     </del>	000h	-150						0		0	0	0	0	0	0	0
1		- 096h	_ 0							1							
1		-	- +150							1							
		120h															
R Gain	ORI:[Data] QRI		UE70series. HE75series. HE70serie s. HE60. HE50	!													
		000h	s, HE60, HE50 -30														
		096h	0														
		120h	30														
		000h	-150			supports only		supports only	supports only					supports only	0		
	OPD: [Do+o]	-	-			supports only -100~+100		-100~+100	-100~+100					supports only -100~+100	Ŭ.		
R Pedestal	ORP:[Data] QRP	096h -	0 -														
		12Ch	+150														
Iris Mode	ORS: [Data] ORS	0 1	Manua I Auto	0	0	0	supports only 1(Auto)	0	0	0	0	0	0	0	0	0	0
	ORV: [Data]	000h	Close	0	0	0		0	0	0	0	0	0	0	0	0	0
Iris Control	QRV	3FFh	0pen														
Linear Table	OSA:00:[Data]	0	Table A							0							
Linear Table	QSA: 00	1	Table B							0							
		50h -	-48 -			supports only 78h(-8)		supports only 78h(-8)		O							
Master Black Gamma	OSA: 07: [Data] QSA: 07	80h -	0 -			- 88h (+8)		- 88h (+8)									
		B0h	+48														
		6Ch	-20			-				0							
		71h	-15							1							
R Black Gamma	OSA: 08: [Data] QSA: 08	- 80h	- 0							1							
Di gon dallilla	QSA:08	- 8Fh	+15							1							
		_	-							1							
		94h	+20										<u> </u>				
	1	6Ch	-20 -							ľ							
		71h -	-15 -							1							
B Black Gamma	OSA:09:[Data] QSA:09	80h -	0 -							1							
	40.1.00	8Fh	+15							1							
		94h	+20							1							
-	001.01.50	0	Off	-		-				0							
Gamma SW	OSA: OA: [Data] QSA: OA	1	0n							ľ							
	OSA: OB: [Data]	0	Off			-				0							
Black Gamma SW	QSA: OB: [Data]	1	0n							1							
DRS SW	OSA:OD:[Data]	0	Off On							0							
	QSA: OD	1															
Black Stretch	OSA:OF:[Data]	00h -	0 -					O		0							
Level (@FILM MENU & FILM REC)	OSA: OF: [Data] QSA: OF	1Eh	30							1							
			1			1		1	1	1	1	1	1		1	1	1

	Command		Data Contents														
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		0	200%					0		supperts only							
Dynamic Level	004 : 10 : [Data]	1 2	300% 400%							0 (200%)							
Dynamic Level (@FILM MENU & FILM REC)	QSA:10.[Data]	3 4	500% 600%							3 (500%)							
nes)																	
51 011	OSA:11:[Data]	0	0ff							0							
Flare SW	QSA:11	1	0n														
		22h -	70. 00% -			support only 22h (70.00%) -		support only 22h(70.00%) -	support only 22h(70.00%) -	support only 4Ah (80.00%) -				support only 22h (70.00%) -			
North North Dallat	004-00-50-4-3	80h -	93. 50%			B6h (107.00%) (1step=0.5%)		B6h (107. 00%) (1step=0.5%)	B6h (107. 00%) (1step=0. 5%)	C2h (110. 00%)				B6h (107, 00%) (1step=0, 5%)			
Master Knee Point (@VIDEO MENU)	QSA:20 [Data]	B6h _	107. 00%														
		C2h	110.00% (1step=0.25%)														
		COL															
		62h	30%					0		support only 62(30%)							
Master Knee Point (@FILM MENU &	OSA:21:[Data]	80h -	60%							9E (90%)							
VIDEO REC)	QSA: 21	9Eh 	90%														
		AFh	107%														
		1Ch	-25. 00%							0							
R Knee Point	OSA:22:[Data]	80h	0.00%														
K Kilee Pollic	QSA: 22	E4h	+25. 00%														
			(1step=0.25%)														
		1Ch -	-25. 00% -							0							
B Knee Point	OSA: 23: [Data] QSA: 23	80h 	0.00%														
	USA . 23	E4h	+25.00% (1step=0.25%)														
		00h	0			support only		support only	support only	0				support only			
		- 63h	-			00h (0) - 63h (99)		00h(0) - 63h(99)	00h(0) - 63h(99)	Ö				support only 00h(0) - 63h(99)			
Master Knee Slope (@VIDEO MENU)	OSA: 24: [Data] QSA: 24	-	99														
		C7h	199														
		7Ch	150%					supports only 7Ch(150%) -		0							
Master Knee Slope (@FILM MENU &	OSA: 25: [Data]	80h	350%					83h (500%)									
VIDEO REC)	QSA: 25	- 85h	600%														
			(1step=50%)														
		1Dh -	-99 -							0							
R Knee Slope (@VIDEO MENU)	OSA: 26: [Data] QSA: 26	80h _	0 -														
(@AIDEO WEINO)	Q3A . 20	E3h	+99														
-		1Dh	-99							0							
B Knee Slope	OSA: 27: [Data]	- 80h	_ 0														
(@VIDEO MENU)	QSA: 27	_ E3h	- +99														
		4Ah -	80. 00%							0							
Auto Knee Point	OSA:28:[Data]	80h _	93. 50%														
(@VIDEO MENU)	QSA: 28	B6h	107.00% (1step=0.25%)														
		704	100%							0							
Auto Knee Level	OSA: 29: [Data] OSA: 29	7Ch - 85h	100%							O							
(@VIDEO MENU)	QSA: 29	850	109% (1step=1%)														
	OSA: 2A: [Doto]	00h _	90%	0		0		0	0		-			0			
White Clip Level	OSA: 2A: [Data] QSA: 2A	13h	109%								1					1	
		0	0ff	supports only 0(Off)		supports only 0(Off)		supports only	supports only	supports only				0			
	OSA:2D:[Data]	1 2	Manual Auto	2 (Auto)		1 (Manual)		0 (0ff) 1 (Manual)	0 (0ff) 1 (Manual)	0 (0ff) 1 (Manual)	1					1	
Knee Mode	QSA:2D [Data]	3 4	Low Mid	3 (Low) 4 (Mid)		2 (Auto)		2 (Auto)	2 (Auto)	2 (Auto)	1					1	
1		5	High	5 (High)							1					1	
White Clip	OSA: 2E: [Data] QSA: 2E	0	Off On	0		0		0	0		-			0			
	USA: 2E	<u> </u>	UII	1		L			1	1	1		l	L	l	<u> </u>	l

	Command		Data Contents	I													
ITEM	Control / Response /	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	Confirmation	61h	Response to contol -31	0200/0200/0240		02100		02100/112140	1111140	0,000				0	IIE120		
		-	-	O		O		O	O	O	supports only 81h(1)-91h(17)	supports only 81h(1)-91h(17)	supports only 81h(1)-91h(17)	0		supports only 81h(1)-91h(17)	
		80h _	0								for Detail Level	for Detail Level (L)	for Detail Level			for Total Dtail Level (L)	
		9Fh	+31								(E)	(L)	(L)			ECVCT (E)	
Master Detail	OSA:30:[Data]		HR140, HE130														
madedi bocari	QSA: 30	61h	0														
		- 80h	+31														
		-	-														
		9Fh	+62														
		00h _	0 _							0							
H Detail Level	OSA:31:[Data] QSA:31	3Fh	63														
		61h _	-31 -			0		0		0							
Detail Gain(+)	OSA:38:[Data]	80h	0														
	QSA: 38	9Fh	+31														
		61h	-31			0		0		0							
	004.00.70 . 3	-	-					ľ		[	1	I		I	I		
Detail Gain(-)	OSA:39:[Data] QSA:39	80h _	0 _					1			1	1		1	1		
	I	9Fh	+31					I			1	I		I	I		
	1	0	(G+R) /2 (G+B) /2							0							
		1 2	(G+B) /2 (2G+B+R) /4														
Detail Source	OSA:3B:[Data] QSA:3B	3	(3G+R) /4					1			1	1		1	1		
	GOM: OD	4 5	R G														
		, and the same of															
Skin Tone Detail	OSA: 40: [Data] QSA: 40	0	Off On	0		0		0		0							
		Ó	0ff							0							
Skin Get	OSA: 41: [Data] QSA: 41	1 2	On Get														
		-															
Skin Tone Detail	OSA:45:[Data]	00h -	0 -							0							
I Center (HD)	QSA: 45	FFh	255														
		00h	0							0							
Skin Tone Detail I Width(HD)	OSA: 46: [Data] QSA: 46	- FFh	_ 255														
1 WIGHT(IID)	G3A: 40																
Skin Tone Detail	OSA: 47: [Data]	00h _	0							0							
Q Width (HD)	QSA: 47	FFh	255														
	OSA: 49: [Data]	0	Off							0							
Skin Tone Zebra	OSA:49:[Data] QSA:49	1	0n							0							
		7Ah -	-6dB -							٥							
		7Ch	0dB					I			1	I		I	I		
Low Gain	OSA:50:[Data]	80h	12dB					I			1	I		I	I		
LOW VAIII	QSA: 50	- 86h	- 30dB					I			1	I		I	I		
		-	-								1				1		
		88h	36dB					1			1	1		1	1		
		7Ah	−6dB							0							
		7Ch	- OdB								1				1		
	OSA:51:[Data]	- 80h	12dB					I			1	I		I	I		
Mid Gain	QSA:51:[Data] QSA:51	-	-					I			1	I		I	I		
		86h _	30dB _								1				1		
		88h	36dB					1			1	1		1	1		
}	1	7Ah	−6dB							0	-						
		-	-					I		Ī -	1	I		I	I		
		7Ch -	OdB -					I			1	I		I	I		
High Gain	OSA:52:[Data]	80h	12dB					1			1	1		1	1		
1	QSA: 52	- 86h	30dB					1			1	1		1	1		
		-	-					I			1	I		I	I		
		88h	36dB														
Super Gain Memory	OSA: 60: [Data]	0	S. Gain1 S. Gain2							0							
Select	QSA: 60	2	S. Gain3					I			1	I		I	I		
				1		L	1	1	1	·	1	1	1	1	1	1	1

	Command Control / Response /		Data Contents														
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Frame Mix	OSA: 65: [Data] OSA: 65	00h 06h 0Ch 12h 18h 1Eh 80h	Off +6dB +12dB +18dB +24dB +30dB Auto	support only 00h(0ff) - 18h(+24dB), 80h(Auto)	support only 00h(0ff) - 18h(+24dB), 80h(Auto)	support only 00h (0ff) – 18h (+24dB) , 80h (Auto)		supports only 00h(0ff) – 18h(+24dB)	supports only 00h (0ff) - 18h (+24dB)	supports only 00h(0ff) – 18h(+24dB)	supports only 00h (0ff) – 18h (+24dB), 80h (Auto)	supports only 00h(0ff) - 18h(+24dB), 80h(Auto)	supports only 00h(0ff) - 18h(+24dB). 80h(Auto)	supports only 00h(0ff) – 18h(+24dB)	supports only 00h (0ff) - 18h (+24dB)	supports only 00h(0ff) - 12h(+18dB), 80h(Auto)	supports only 00h (0ff) – 12h (+18dB), 80h (Auto)
Master Gamma	OSA: 6A: [Data] OSA: 6A	67h - 80h - 94h	0.30 - 0.55 - 0.75	0		0		0	0					0			
Linear Matrix	OSA: 84: [Data] QSA: 84	0 1 2	Off On On							0							
Color Correction	OSA: 85: [Data] QSA: 85	0	Off On							0							
Format	OSA: 87: [Data] QSA: 87	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
OSD Status	OSA:88:[Data] QSA:88	0 1	Off On	0		0		0	0	0	0	0	0	0	0	0	0
Total Dtail Level High	OSA:B1:[Data] QSA: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: DO: [Data] QSA: DO	0	Off On	0	0	0	0	0	0		0	0	0	0			
	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)			0	0	0	0			
Audio Plugin Power	OSA: D2: [Data] QSA: D2	0 1	Off On	0	0	0		0			0	0	0	0			
Tally Brightness	OSA: D3: [Data] QSA: D3	0 1 2	Low Mid High	0		0		0						0			
Audio Line Input Level	OSA: D4: [Data1]: [Data 2] GSA: D4: [Data1]	[Data1] 0 1 [Data2] 0 1 2	[Data1] CH1/CH3 CH2/CH4 [Data2] +4dB OdB -20dB						0								
Audio Volume Level	OSA: D5: [Data1] : [Data 2] OSA: D5: [Data1]	[Data1] 0 1 2 3 (Data2) 55h - 80h - 80h	[Date1] (H1 GH2 GH2 GH3 GH4 [Date2] -400B 0B	[Data1] supports only 0 (CH1) 1 (CH2) [Data2] supports only 5Ch (-36dB) - 8C (12dB) (step:3dB)	[Data1] supports only 0 (CHI) (OCHI) [Data2] supports only 56th(-36dB) - - 8C (12dB) (step:3dB)	[Data1] supports only 0 (CH1) [Data2] supports only 5Ch (-36dB) - 8C (12dB) (step:3dB)		[Data1] supports only O(CH1) [Data2] supports only 5Ch(-36dB) - 8C(12dB) (step:3dB)	0								
Audio Head Room	OSA:D6:[Data] QSA:D6	0 1 2	FS-12dB FS-18dB FS-20dB						0								
Audio Line CH Select	OSA: D7: [Data] QSA: D7	0 1 2 3	AII CH1/CH2 CH3/CH4 None						0								
SC Coarse	OSC: [Data] QSC	*	*													*	*
H Detail Level H	OSD: OA: [Data] QSD: OA	02h - 3Fh	2 - 63												0		
V Detail Level H	OSD: OE: [Data] QSD: OE	02h - 1Fh	2 - 31												0		
H Detail Level L	OSD:12:[Data] QSD:12	01h - 3Eh	1 - 62												0		
V Detail Level L	OSD:16:[Data] QSD:16	01h - 1Eh	1 - 30												0		
Detail Band	OSD:1E:[Data] QSD:1E	01 - 05	01 - 05												0		

	Command Control / Response /		Data Contents														
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	1	00h	0						support only 00(0)-3C(60)	0				support only 00(0)-30(60)	support only 00(0)-07(7)		
Noise Suppress /Crisp	OSD:22:[Data] QSD:22	3Fh	63						00 (0) -3C (60)					00 (0) -3C (60)	00 (0) -07 (7)		
Level Dependent	OSD:26:[Data] QSD:26	00h - 0Fh	00 - 15							0							
		00h -	-31 -												0		
Matrix(R-G)	OSD:2F:[Data] QSD:2F	1Fh -	0 -														
		3Eh	+31														
	OSD:30:[Data]	00h - 1Fh	-31 - 0												0		
Matrix (R-B)	QSD:30	- 3Eh	- +31														
		00h	-31												0		
Matrix (G-R)	OSD:31:[Data] QSD:31	1Fh	0														
	USD . 31	_ 3Eh	+31														
		00h -	-31 -												0		
Matrix (G-B)	OSD: 32: [Data] QSD: 32	1Fh - 3Eh	0 - +31														
		00h 	-31 -												0		
Matrix (B-R)	OSD:33:[Data] QSD:33	1Fh -	0 -														
		3Eh	+31														
	OSD:34:[Data]	00h  1Fh	-31 - 0												0		
Matrix (B-G)	OSD:34:[Data] QSD:34	- 3Eh	+31														
		9C	-100							0							
	05D : 35 : [Da+a]	~ FF 00 01	~ -1 0														
Flare R	OSD:35:[Data] QSD:35	~	+1 ~														
		64	+100														
		90 ~ FF	-100 ~ -1							0							
Flare G	OSD:36:[Data] QSD:36	00 01	0 +1														
	400.00	~ 64	+100														
		9C ∼	−100 ~							0							
Flare B	OSD:37:[Data] QSD:37	FF 00 01	-1 0														
i laic b	QSD: 37	01 ~ 64	+1 ~														
			+100 Off	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		00 01 02	Low High														
DNR	OSD:3A:[Data] QSD:3A	AK-UB300	<u>UB300</u> Off														
		00 01 02	On On														
		,	5					<u> </u>			<u> </u>			<u> </u>			

	Command		Data Contents	I													
ITEM	Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	oom macron		Response to contol UE100, UE20, HE20, UE4,	0	supports only	0	supports only	0	0	0	0	0	0	0	0	0	0
		00h	UE150, HE145, HR140, HE130 -50		2Eh (-4)		2Eh (-4)										
		_	-		36h (4)		36h (4)										
		32h -	0 -														
		64h	+50														
			UE70series, HE75series,														
		00h	<u>HE70series, HE120</u> -10														
		- 32h	_ 0														
Picture Level /A.Iris Level	OSD:48:[Data] QSD:48	-	-														
/Iris Offset	QSD: 48	64h	10														
		00h	HE60, HE50 -5														
		-	-														
		32h -	0 -														
		64h	5														
		001	<u>UB300</u>														
		00h -	0 -														
		64h	100														
Flesh Noise	OSD:4B:[Data]	00 01	Off Low												0		
Flesh Noise Suppress	QSD:4B:[Data] QSD:4B	02	Low High			1	1	1									
1	+	00h	Close	0	0	0		0	0		0	0	0	0	0	0	0
Iris Follow	QSD:4F OSD:4F:[Data]	FFh	- Open			1	1	1	1						1	1	
	03D.4I.[Data]															_	
		00 01	Low Mid		0		0				0	0	0		0	0	0
		02	High														
Contrast (Gamma)	OSD:50:[Data] QSD:50		UE20/HE20/UE4														
(dallilla)	400.00	0 -	0 -														
		4	4														
	000 · 65 · [Data]	00 01	RGB												Y/C is Valid		
Output Select	OSD:65:[Data] QSD:65	01 02	YPbPr Y/C														
		01 02	6dB 12dB	supports only	supports only 04 (24dB)	supports only 01 (6dB)	supports only 04(24dB)	supports only 01(6dB)	supports only 01 (6dB)		supports only	supports only	supports only	supports only	supports only	supports only 01(6dB)	supports only 01(6dB)
		02 03	12dB 18dB	01 (6dB)	04 (24dB)	01 (6dB)	04 (24dB)		01 (6dB)		01 (6dB)	01 (6dB)	01 (6dB)				
AGC Max Gain	OSD:69:[Data]	0.4			-	-	-	-	-		-	-	-	01 (6dB) -	01 (6dB)	- (6dB)	-
Auo max uaiii	QSD: 69	04	24dB	06 (36dB)	- 07 (42dB)	- 03 (18dB)	- 07 (42dB)	- 03 (18dB)	03 (18dB)		- 08 (48dB)	- 08 (48dB)	- 08 (48dB)	03 (18dB)	01 (6dB) - 03 (18dB)	01 (6dB) - 03 (18dB)	03 (18dB)
	G3D - 03	03 04 05 06	24dB 30dB 36dB	06 (36dB)	- 07 (42dB)	- 03 (18dB)	- 07 (42dB)	-	-		-	- 08 (48dB)	-	-	-	-	-
	430.09	05 05 06 07 08	24dB 30dB 36dB 42dB	06 (36dB)	- 07 (42dB)	- 03 (18dB)	- 07 (42dB)	-	-		-	- 08 (48dB)	-	-	-	-	-
	430.05	06 07 08	244B 30dB 36dB 42dB 48dB		- 07 (42dB)		- 07 (42dB)	- 03 (18dB)	- 03 (18dB)	supports only	-	- 08 (48dB)	-	- 03 (18dB)	-	-	-
		06 07 08 01h -	24dB 30dB 36dB 42dB 48dB -127	06 (36dB) supports only 41h (-63)		- 03 (18dB) supports only 41h (-63)	- 07 (42dB)	-	-	supports only 01h(-127)	-		-	-	-	-	-
Color Correction B_Mg Saturation	OSD: 80: [Data]	06 07 08 01h - 80h	24dB 30dB 36dB 42dB 48dB 	supports only 41h(-63)		supports only 41h(-63)	- 07 (42dB)	- 03(18dB) supports only 41h(-63)	- 03 (18dB) supports only 41h (-63)	01h (-127) -	-		-	- 03 (18dB) supports only 41h (-63)	-	-	-
Color Correction B_Mg Saturation		06 07 08 01h -	24dB 30dB 36dB 42dB 48dB -127	supports only		supports only	- 07 (42dB)	- 03 (18dB)	- 03 (18dB)	supports only 01h(-127)  FEh(+126)	-		-	- 03 (18dB)	-	-	-
Color Correction B_Mg Saturation	OSD: 80: [Data]	06 07 08 01h - 80h	24dB 30dB 36dB 42dB 48dB 	supports only 41h(-63) - BFh(+63) supports only	-07 (42dB)	supports only 41h(-63) - BFh(+63)		- 03(18dB)  supports only 41h(-63)  BFh(+63)  supports only	-03 (18dB)  supports only 41h(-63)  BFh(+63)	01h (-127) -	-		-	- 03 (18dB)  supports only 41h(-63) BFh(+63) supports only	-	-	-
B_Mg Saturation  Color Correction	OSD: 80: [Data] OSD: 80 OSD: 81: [Data]	06 07 08 01h - 80h - FFh	24dB 30dB 36dB 42dB 48dB 127 - 0  +127	supports only 41h(-63) - BFh(+63) supports only 41h(-63)	-07 (42dB)	supports only 41h(-63) - BFh(+63) supports only 41h(-63)		-03(18dB)  supports only 41h(-63) - BFh(+63)  supports only 41h(-63) -	-03 (18dB)  supports only 41h(-63) - BFh(+63)  supports only 41h(-63) -	01h (-127) -	-		-	-03(18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63)	-	-	-
B_Mg Saturation	OSD:80:[Data] QSD:80	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB -127 - 0 - +127 -127 - 0 	supports only 41h(-63) - BFh(+63) supports only		supports only 41h(-63) - BFh(+63)		- 03(18dB)  supports only 41h(-63)  BFh(+63)  supports only	-03 (18dB)  supports only 41h(-63)  BFh(+63)	01h (-127) -	-		-	- 03 (18dB)  supports only 41h(-63) BFh(+63) supports only	-	-	-
B_Mg Saturation  Color Correction	OSD: 80: [Data] OSD: 80 OSD: 81: [Data]	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB 127 - 0 - +127 -127 - 127 - 0 - +127	supports only 41h(-63) BFh(+63) supports only 41h(-63) - BFh(+63)	07 (42dB)	supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63)		-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  - BFh(+63)	-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  - BFh(+63)	01h (-127)  FEh (+126)				-03 (18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) - BFh(+63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase	OSD:80:[Data] QSD:80 OSD:81:[Data] OSD:81:[Data]	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB -127 - 0 0 +127 -127 - 127 - 127 - 127 - 127	supports only 41h(-63) - BFh(+63) supports only 41h(-63)	07 (42dB)	supports only 41h(-63) 		-03(18dB)  supports only 41h(-63) - BFh(+63)  supports only 41h(-63) -	-03 (18dB)  supports only 41h(-63) - BFh(+63)  supports only 41h(-63) -	01h (-127)  FEh (+126)				-03 (18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) - BFh(+63)	-	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction	OSD:80:[Data] QSD:80 OSD:81:[Data] OSD:81:[Data]	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB 127 - 0 - +127 -127 - 127 - 0 - +127	supports only 41h(-63)	07 (42dB)	supports only 41h(-63) - BFh(+63) supports only 41h(-63) - BFh(+63) supports only 41h(-63) supports only 41h(-63)		-03(18dB)  supports only 41h(-63)	-03(18dB)  supports only 41h(-63)	01h(-127)	-08 (48dB)	supports only 6ih(-31)	-08 (48dB) supports only 61h(-31)	-03 (18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase	OSD: 80: [Data] OSD: 80 OSD: 81: [Data]	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB -127 - 0 0 +127 -127 - 127 - 127 - 127 - 127	supports only 41h(-63) - BFh(+63) - BFh(+64)	07 (42dB)	supports only 41h(-63) 		-03(18dB)  supports only 41h(-63)  -BFh(+63)  supports only 41h(-63)  BFh(+63)	-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  - BFh(+63)	01h (-127)  FEh (+126)				-03 (18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) - BFh(+63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction	OSD:80:[Data] QSD:80 OSD:81:[Data] OSD:81:[Data]	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB -127 - 0 - +127 -127 - 0 - +127 - 127 - 0	supports only 41h(-63) BFh(+63) supports only 41h(-63) SFh(+63) supports only 41h(-63) Supports only 41h(-63) BFh(+63)	07 (42dB)	supports only 41h(-63) - BFh(+63)		-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)	-03(18dB)  supports only 41h(-63)  BFh(-63)  supports only 41h(-63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  BFh(+63)	01h(-127)		supports only Sih(-31) 9Fh(+31)	-08 (48dB) supports only 61h(-31) -9Fh(+31) supports only	-03 (18dB)  supports only 41h(-63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction Mg Saturation	OSD:80:[Data] OSD:81:[Data] OSD:81:[Data] OSD:81:[Data] OSD:82:[Data]	06 07 08 01h 	24dB 30dB 36dB 42dB 48dB -127 -0 -1 127 -127 -127 -127 -127 -127 -127 -1	supports only 41h(-63)		supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63)		-03(18dB)  supports only 41h(-63)	-03(18dB)  supports only 41h(-63)	01h(-127)	-08 (48dB)	supports only 6ih(-31)	-08 (48dB) supports only 61h(-31)	O3 (18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  supports only 41h(-63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction	OSD:80:[Data] QSD:80 OSD:81:[Data] OSD:81:[Data]	06 07 08 01h 80h FFh 01h - 80h - FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 48dB 42dB 48dB -127 0 -127 0 -127 -0 -127 -0 -127 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127	supports only 41h(-63) BFh(+63) supports only 41h(-63) SFh(+63) supports only 41h(-63) Supports only 41h(-63) BFh(+63)	07 (42dB)	supports only 41h(-63) - BFh(+63)		-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)	-03(18dB)  supports only 41h(-63)  BFh(-63)  supports only 41h(-63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  BFh(+63)	01h(-127)		supports only Sih(-31) 9Fh(+31)	-08 (48dB) supports only 61h(-31) -9Fh(+31) supports only	-03 (18dB)  supports only 41h(-63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction Mg Saturation  Color Correction	OSD:80:[Data] OSD:81:[Data] OSD:81:[Data] OSD:81:[Data] OSD:82:[Data]	06 07 08 01h 80h FFh 01h - 80h - FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 48dB 42dB 48dB  -127 0127 0 - +127 - 0 - +127 - 0 - +127 - 0 - +127 - 0 - +127 0 - +127 0 - +127	supports only 41h(-63) BFh(+63) supports only 41h(-63) Supports only 41h(-63) Supports only 41h(-63) Supports only 41h(-63) BFh(+63) Supports only BFh(+63)	07 (42dB)	supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63)		-03(18dB)  supports only 41h(-63)  supports only 5hh(-63)	-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)	Olh (-127)		supports only 61h(-31) 9Fh(+31) supports only 41h(-63) - BFh(+63)		-03 (18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction Mg Saturation  Color Correction	OSD:80:[Data] OSD:81:[Data] OSD:81:[Data] OSD:81:[Data] OSD:82:[Data]	06 07 08 01h 80h FFh 01h - 80h - FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 48dB 42dB 48dB -127 0 -127 0 -127 -0 -127 -0 -127 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127 -0 -127	supports only 41h(-63) BFh(+63) supports only 41h(-63) - BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) Supports only 41h(-63) Supports only		supports only 41h(-63) BFh(+63) supports only 41h(-63) - BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) SHPh(+63) SUPPORTS ONLY 41h(-63) SUPPORTS ONLY 41h(-63)		supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)	Supports only 41h(-63) BFh(+63) Supports only 41h(-63)	Olh(-127)		supports only filh(-31) 9Fh(+31) Supports only 41h(-63) BFh(+63) supports only		supports only 41h(-63) BFh(-63) Supports only 41h(-63) - BFh(+63) Supports only 41h(-63) - BFh(+63) Supports only 41h(-63) Supports only 41h(-63) Supports only	- 03 (18dB)	-	-
B.Mg Saturation  Color Correction B.Mg Phase  Color Correction Mg Saturation  Color Correction Mg Phase  Color Correction Color Correction Color Correction	OSD: 80: [Data] OSD: 81: [Data] OSD: 81: [Data] OSD: 82: [Data] OSD: 82: [Data] OSD: 83: [Data] OSD: 84: [Data]	06 07 08 01h 80h FFh 01h - 80h - FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 48dB 42dB 48dB  -127 0127 0 - +127 - 0 - +127 - 0 - +127 - 0 - +127 - 0 - +127 0 - +127 0 - +127	supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) supports only 41h(-63) BFh(+63) supports only 41h(-63) Supports only 41h(-63)		supports only 4lh(-63) BFh(+63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) BFh(+63)		-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  -BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)	-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  -BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)	Olh(-127)	supports only file(-31)  supports only file(-31)  supports only file(-33)  supports only file(-31)	supports only 6ih(-31) - 9h(+31) supports only 4ih(-63) 8h(+63) supports only 6ih(-31)	supports only filic(3) supports only filic(3) supports only filic(3) supports only filic(3)	-03 (18dB)  supports only 41h(-63) BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)	- 03 (18dB)	-	-
B.Mg Saturation  Color Correction B.Mg Phase  Color Correction Mg Saturation  Color Correction Mg Phase	OSD:80:[Data] OSD:81:[Data] OSD:81:[Data] OSD:82:[Data] OSD:82:[Data] OSD:82:[Data]	06 07 08 01h 80h FFh 01h - FFh 01h - 80h - FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 48dB 42dB 48dB  -127 0 0 -1 +127 -127 0 -127 0 -127 -127 -127 -127 -127 -127 -127 -127	supports only 41h(-63) BFh(+63) supports only 41h(-63) - BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) Supports only 41h(-63) Supports only		supports only 41h(-63) BFh(+63) supports only 41h(-63) - BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) SHPh(+63) SUPPORTS ONLY 41h(-63) SUPPORTS ONLY 41h(-63)		supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)	Supports only 41h(-63) BFh(+63) Supports only 41h(-63)	Olh(-127)		supports only filh(-31) 9Fh(+31) Supports only 41h(-63) BFh(+63) supports only		supports only 41h(-63) BFh(-63) Supports only 41h(-63) - BFh(+63) Supports only 41h(-63) - BFh(+63) Supports only 41h(-63) Supports only 41h(-63) Supports only	- 03 (18dB)	-	-
B.Mg Saturation  Color Correction B.Mg Phase  Color Correction Mg Saturation  Color Correction Mg Phase  Color Correction Color Correction Color Correction	OSD: 80: [Data] OSD: 81: [Data] OSD: 81: [Data] OSD: 82: [Data] OSD: 82: [Data] OSD: 83: [Data] OSD: 84: [Data]	06 07 08 01h 80h FFh 01h - FFh 01h - 80h - FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 42dB 48dB  -127 0 -127 -127 -0 -127 -127 -0 -127 -127 -127 -0 -127 -127 -0 -127 -127 -127 -127 -127 -127 -127 -127	supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) supports only 41h(-63) supports only 41h(-63) supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63)		supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) supports only 41h(-63) supports only 41h(-63) BFh(+63) BFh(+63)		-03(18dB)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63)  supports only 54h(-63)  supports only 64h(-63)  supports only 64h(-63)  supports only 64h(-63)  supports only 64h(-63)		Olh(-127)		supports only 61h(-21) 9Fh(+31) supports only 41h(-63) BFh(+63) supports only 61h(-31) - 9Fh(+31)			- 03 (18dB)	-	-
B.Mg Saturation  Color Correction B.Mg Phase  Color Correction Mg Saturation  Color Correction Mg Phase  Color Correction Mg.R Saturation	OSD:80:[Data] OSD:81:[Data] OSD:81:[Data] OSD:81:[Data] OSD:82:[Data] OSD:82:[Data] OSD:82:[Data] OSD:83:[Data]	06 07 08 01h 80h FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 42dB 42dB 48dB  -127 0 0 -1 -127 -0 0 -1 -127 -0 -127 -0 -127 -127 -127 -127 -0 -127 -127 -127 -127 -127 -127 -127 -127	supports only 41h(-63) BFh(+63) supports only 41h(-63) BFh(+63) supports only 41h(-63) supports only 41h(-63) BFh(+63) supports only 41h(-63) Supports only 41h(-63)		supports only 4lh(-63) BFh(+63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) BFh(+63)		-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  -BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)	-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  -BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)	Olh(-127)	supports only file(-31)  supports only file(-31)  supports only file(-33)  supports only file(-31)	supports only 6ih(-31) - 9h(+31) supports only 4ih(-63) 8h(+63) supports only 6ih(-31)	supports only filic(3) supports only filic(3) supports only filic(3) supports only filic(3)	-03 (18dB)  supports only 41h(-63) BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)  supports only 41h(-63) -BFh(+63)	- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction Mg Saturation  Color Correction Mg Phase  Color Correction Mg_R Saturation	OSD: 80: [Data] OSD: 81: [Data] OSD: 81: [Data] OSD: 82: [Data] OSD: 83: [Data] OSD: 83: [Data] OSD: 84: [Data] OSD: 84: [Data]	06 07 08 01h 80h FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 42dB 48dB  -127 0 -127 -127 -0 -127 -127 -0 -127 -127 -127 -0 -127 -127 -0 -127 -127 -127 -127 -127 -127 -127 -127	supports only 41h(-63) BFh(+63) Supports only 41h(-63) BFh(+63) Supports only 41h(-63) - BFh(+63) Supports only 41h(-63) BFh(+63) Supports only 41h(-63) BFh(+63) Supports only 41h(-63) Supports only 41h(-63)		supports only 4lh(-63) BFh(+63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) BFh(+63) supports only 4lh(-63) Supports only 4lh(-63) Supports only 4lh(-63)		-03(18dB)  supports only 41h(-63)  BFh(-63)  supports only 41h(-63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  Supports only 41h(-63)		Olh(-127)		supports only 6ih(-31) - 9Fh(+31) supports only 4ih(-63) BFh(+63) supports only 6ih(-21) 9Fh(+31) supports only 4ih(-63)			- 03 (18dB)	-	-
B_Mg Saturation  Color Correction B_Mg Phase  Color Correction Mg Saturation  Color Correction Mg Phase  Color Correction Mg_R Saturation	OSD:80:[Data] OSD:81:[Data] OSD:81:[Data] OSD:81:[Data] OSD:82:[Data] OSD:82:[Data] OSD:82:[Data] OSD:83:[Data]	06 07 08 01h 80h FFh 01h - 80h - FFh	24dB 30dB 36dB 42dB 42dB 42dB 48dB  -127 0 0 -1 -127 -0 0 -1 -127 -0 -127 -0 -127 -127 -127 -127 -0 -127 -127 -127 -127 -127 -127 -127 -127	supports only 41h(-63) BFh(+63) Supports only 41h(-63) BFh(+63) Supports only 41h(-63) Supports only 41h(-63) BFh(+63) Supports only 41h(-63) BFh(+63) Supports only 41h(-63) Supports only 41h(-63) Supports only		supports only 4in(-63) BFn(+63) supports only 4ih(-63) BFh(+63) supports only 4ih(-63) supports only 4ih(-63) supports only 4ih(-63) BFh(+63) supports only 4ih(-63) BFh(+63) supports only 4ih(-63) SHPH(+63)		-03(18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)  supports only 41h(-63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  supports only 41h(-63)	-03 (18dB)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  -BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)  supports only 41h(-63)  BFh(+63)	Olh(-127)		supports only 61h(-31) - 9Fh(+31) supports only 41h(-63) - BFh(+63) supports only 61h(-31) 9Fh(+31)	supports only file-(31) SFh(+31) supports only supports only file-(35) SFh(+63) supports only supports only supports only supports only	supports only 41h(-63) BFh(+63) Supports only 41h(-63) Supports only 41h(-63) Supports only	- 03 (18dB)	-	-

	Command		Data Contents														
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		01h -	-127 -	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		
Color Correction R Saturation	OSD:86:[Data] QSD:86	80h -	0 -	– BFh (+63)		– BFh (+63)		– BFh (+63)	– BFh (+63)	– FEh (+126)	- 9Fh (+31)	- 9Fh (+31)	- 9Fh (+31)	– BFh (+63)			
		FFh	+127												_		
	000.07.50 7	01h -	-127 -	supports only 41h(-63)		supports only 41h (-63)		supports only 41h(-63)	supports only 41h(-63)	0	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	0		
Color Correction R Phase	OSD:87:[Data] QSD:87	80h -	0 -	- BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	- BFh (+63)			
		FFh 01h	+127 -127	supports only		supports only		supports only	aumanta antu	armanta antr				supports only			
Color Correction	OSD:88: [Data]	- 80h	-127 - 0	41h (-63)		41h (-63)		41h (-63)	supports only 41h(-63)	supports only 01h(-127)				41h (-63)	O		
R_YI Saturation	QSD:88	- FFh	- +127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)				BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	0				supports only	0		
Color Correction	OSD:89:[Data]	 80h	- 0	41h (-63) -		41h (-63) -		41h (-63) -	41h (-63) -					41h (-63) -			
R_YI Phase	QSD:89	- FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)					BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	supports only 01h(-127)	supports only	supports only	supports only	supports only	0		
Color Correction	OSD: 8A: [Data]	- 80h	0	41h (-63) -		41h (-63) -		41h (-63) -	41h (-63) -	-	61h (-31) -	61h (-31) -	61h (-31) -	41h (-63) -			
YI Saturation	QSD: 8A	- FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	0	supports only	supports only	supports only	supports only	0		
Color Correction	OSD:8B:[Data]	- 80h	0	41h (-63) -		41h (-63) -		41h (-63) -	41h (-63) -		41h (-63) -	41h (-63) -	41h (-63) -	41h (-63) -			
YI Phase	QSD:8B	FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		01h	-127	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		
Color Correction YI G Saturation	OSD:8C:[Data] QSD:8C	80h	0	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)				BFh (+63)			
TT_G GATALTON	400.00	FFh	+127	DI II (100)		Bi II (100)		DI II (100)	Di II (* 00)	1 (1120)				Bi II (100)			
		01h _	-127 -	supports only 41h(-63)		supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	0				supports only 41h(-63)	0		
Color Correction YI_G Phase	OSD:8D:[Data] QSD:8D	80h -	0 -	– BFh (+63)		- BFh (+63)		– BFh (+63)	– BFh (+63)					- BFh (+63)			
		FFh	+127														
		01h -	-127 -	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		
Color Correction G Saturation	OSD:8E:[Data] QSD:8E	80h -	0 -	- BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	- FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	- BFh (+63)			
		FFh	+127	aumanta anlu		aumanta anlu		avenanta anti-	aumanta antu	0	aumanta antu	aumanta antu	aumanta antu	aumanta antu			
Color Correction	OSD:8F:[Data]	01h - 80h	-127 - 0	supports only 41h(-63)		supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	O	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	C		
G Phase	QSD:8F	- FFh	- +127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	supports only	supports only	supports only	supports only	supports only	0		
Color Correction	OSD:90:[Data]	- 80h	- 0	41h (-63)		41h (-63)		41h (-63)	41h (-63)	supports only 01h(-127)	61h (-31)	61h (-31)	61h (-31)	41h (-63)			
G_Cy Saturation	QSD: 90	FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	0	supports only	supports only	supports only	supports only	0		
Color Correction	OSD:91:[Data]	- 80h	0	41h (-63) -		41h (-63) -		41h (-63) -	41h (-63) -		41h (-63) -	41h (-63) -	41h (-63) -	41h (-63) -			
G_Cy Phase	QSD: 91	- FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	supports only	supports only	supports only	supports only	supports only	0		
Color Correction	OSD:92:[Data]	- 80h	0	41h (-63) -		41h (-63) -		41h (-63) -	41h (-63) -	01h (-127) -	61h (-31) -	61h (-31) -	61h (-31) -	41h (-63) -			
Cy Saturation	QSD: 92	FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
		01h -	-127 -	supports only 41h(-63)		supports only 41h (-63)		supports only 41h(-63)	supports only 41h(-63)	0	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	supports only 41h(-63)	0		
Color Correction Cy Phase	OSD:93:[Data] QSD:93	80h	0	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		FFh	+127													<u> </u>	
		01h -	-127 -	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		
Color Correction Cy_B Saturation	OSD:94:[Data] QSD:94	80h -	0 -	– BFh (+63)		– BFh (+63)		– BFh (+63)	– BFh (+63)	– FEh (+126)				- BFh (+63)			
		FFh	+127														
		01h -	-127 -	supports only 41h(-63)		supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	0				supports only 41h(-63)	0		
Color Correction Cy_B Phase	OSD:95:[Data] QSD:95	80h	0 -	– BFh (+63)		– BFh (+63)		– BFh (+63)	– BFh (+63)					– BFh (+63)			
		FFh	+127		<u></u>			1				<u>1</u>	<u>1</u>	1	1	1	

F	Command		Data Contents	ī													
ITEM	Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	CONTINUALION	01h	Response to contol -127	supports only		supports only		supports only	supports only	supports only	supports only	supports only	supports only	supports only	0		
Color Correction	OSD:96:[Data] QSD:96	- 80h	- 0	41h (-63) -		41h (-63) -		41h (-63) -	41h (-63) -	01h (-127) -	61h (-31) -	61h (-31) -	61h (-31) -	41h (-63) -			
B Saturation	QSD: 96	- FFh	+127	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
		01h	-127	supports only		supports only		supports only	supports only	0	supports only	supports only	supports only	supports only	0	<u> </u>	
	000.07.50 . 3	-	-	41h (-63)		41h (-63)		41h (-63)	41h (-63)	O	41h (-63)	41h (-63)	41h (-63)	41h (-63)	O		
Color Correction B Phase	OSD:97:[Data] QSD:97	80h - FFh	0 -	BFh (+63)		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
			+127														
		Data1 0	<u>Output</u> Browser/Video SDI/HDMI, Component													suports only Output	
		İ	SDI/HDMI, Component													Output O(Browser/Video), 1(SDI/HDMI, Compon	
		Data2	Character Mix Select													ent)	
Character Mix	OSD:98:[Data1]:[Data	0 1	Off On													Character Mix	
Select	QSD:98:[Data1]	2	Off By Browser													Character Mix Select 2(Off By Browser)	
																is Valid When Output is	
																1 (SDI/HDMI, Compon	
	1	41h	-63			0		0	0		-			0		ent)	
Color Correction	OSD: 9A: [Data]	- 80h	-03 - 0	ľ		Ĭ											
Color Correction Mg_R_R Saturation	OSD:9A:[Data] QSD:9A	-	-														
<b></b>	1	BFh 41h	+63 -63					0	0					0		<del> </del>	
Color Correction	ngn : gg : [na+a]	-	-	ľ		Ĭ											
Color Correction Mg_R_R Phase	OSD:9B:[Data] QSD:9B	80h -	0 -														
		BFh	+63								<b>_</b>				ļ	<u> </u>	
		41h -	-63 -	0		0		0	0		supports only 61h(-31)	supports only 61h(-31)	supports only 61h(-31)	0			
Color Correction R_R_YI Saturation	OSD:9C:[Data] QSD:9C	80h -	0 -								- 9Fh (+31)	9Fh (+31)	9Fh (+31)				
		BFh	+63								,,						
		41h	-63 -	0		0		0	0		0	0	0	0		<u> </u>	
Color Correction R_R_YI Phase	OSD:9D:[Data] QSD:9D	80h	0														
	1	BFh	+63														
		41h _	-63 -	0		0		0	0		supports only 61h(-31)	supports only 61h(-31)	supports only 61h(-31)	0			
Color Correction R_YI_YI Saturation	OSD:9E:[Data] QSD:9E	80h	0								9Fh (+31)	9Fh (+31)	9Fh (+31)				
ICTI_TT Saturation	GOD. SL	BFh	+63								9FN (+31)	9FN (+31)	9FN (+31)				
		41h	-63	0		0		0	0		0	0	0	0			
Color Correction R_YI_YI Phase	OSD:9F:[Data] QSD:9F	80h	0														
K_TI_TI Filase	Q3D.9F	BFh	+63														
		79h _	-7	0		0		0	0		-			0	-		
V Detail Level	OSD: A1: [Data] QSD: A1	- 80h	0														
	GOD - MI	- 87h	7														
		79h	-7			0		0	0					0		<del> </del>	
Detail Band	OSD: A2: [Data]	- 80h	- 0														
/Detail Frequency	QSD: A2	- 87h	7														
Flesh Tone Noise		80h	0	0		0		0	0					0		<del> </del>	
Suppress /Skin Detail	OSD:A3:[Data] QSD:A3	- 9Fh	- 31														
Effect		41h	-63						0		-				<u> </u>	<del> </del>	
L	OSD: A4: [Data]	- 80h	-	ľ		Ĭ								ľ			
Matrix (R-G)	OSD: A4: [Data] QSD: A4	_	0 -														
-		BFh 41h	63 -63					0	0		<u> </u>	<u> </u>		0	<u> </u>	<u> </u>	
	09D: A5: [De+=1	-	-	ľ													
Matrix (R-B)	OSD: A5: [Data] QSD: A5	80h -	0 -														
		BFh	63													1	
ĺ		41h -	-63 -	O		O		O	O					O			
Matrix(G-R)	OSD:A6: [Data] QSD:A6	80h _	0 -														
		BFh	63			<u> </u>										<u> </u>	
		41h _	-63 -	0		0		0	0					0			
Matrix(G-B)	OSD:A7:[Data] QSD:A7	80h	0														
	40D-M/	BFh	63														
		122 All Dights Deserved	1			1	1	1	1	1	1		1	1	1	ı l	11

	Command		Data Contents														
ITEM	Control / Response /	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	Confirmation	41h	Response to contol -63	0200/0200/0240	0E20/11E20	02.100	024	02100/112140	0		0E70301103	11242301 103		0	112120		11200
		-	-	O		O		O	O					O			
Matrix (B-R)	OSD: A8: [Data] QSD: A8	80h _	0														
	40D - NO	BFh	63														
		41h	-63	0		0		0	0					0			
	OSD: A9: [Data]	- 80h	-														
Matrix (B-G)	QSD: A9	_	0 -														
		BFh	63														
		61h	-31 -								0	0	0				
Color Correction Cy_Cy_B Saturation	OSD: AA: [Data]	80h	0														
Cy_Cy_B Saturation	QSD: AA	- 9Fh	- +31														
											0	0					
		41h -	-63 -								0	0	0				
Color Correction Cy_Cy_B Phase	OSD: AB: [Data] QSD: AB	80h -	0														
0,_0,_0 111000	405.715	BFh	- +63														
		61h	-31								0	0	0				
Color Correction	OSD: AC: [Data]	- 80h	- 0														
Cy_B_B Saturation	QSD: AC	-	-														
		9Fh	+31														
		41h	-63								0	0	0				
Color Correction Cy_B_B Phase	OSD: AD: [Data]	80h	0														
Cy_B_B Phase	QSD: AD	– BFh	- +63														
						0											
		00h 1Dh	0ff -99%	O		O		O	supports only 00(Off),	0				supports only 00(Off),			
		- 80h	- 0						1D (-99%) - A8 (40%)					1D (-99%) - A8 (40%)			
		-	-						A8 (40%)					A8 (40%)			
		A8h -	40%														
	OSD:B0:[Data]	E3h	99%														
Chroma Level	QSD:BO [Data]	AK-UB300	<u>UB300</u>														
		00h	-100%														
		1Dh -	-99%														
		80h	0														
		_ A8h	40%														
Color Temperature	OSD:B1:[Data] OSD:B1	*	*						*		*	*	*	*			
Night Mode Select	OSD:B2:[Data] QSD:B2	0	Manua I								0	0	0				
Hight mode ocioce	QSD: B2	1	Auto Disable	[Zoom Mode]	[7aam Mada]	[Zoom Mode]		[Zoom Mode]			0	0	0				
		0 1	Enable	-Opt Zoom	[Zoom Mode] -Opt Zoom	-Opt Zoom		-Opt Zoom			O	0	O				
				OSE:70:0 OSD:B3:0	0SE:70:0 0SD:B3:0	OSE:70:0 OSD:B3:0		OSE:70:0 OSD:B3:0									
	OSD:B3:[Data]			-i Zoom	-i Zoom	-i Zoom		-i Zoom									
i. Zoom	QSD:B3			OSE:70:0 OSD:B3:1	OSE:70:0 OSD:B3:1	OSE:70:0 OSD:B3:1		OSE:70:0 OSD:B3:1									
				-D Zoom	-D Zoom	-D Zoom		-D Zoom									
				OSE:70:1 OSD:B3:0	OSE:70:1 OSD:B3:0	OSE:70:1 OSD:B3:0		OSE:70:1 OSD:B3:0									
				000.00.0	000.00.0	000.00.0		000.00.0			]						
	OCD : PA : [Data]	0	Off Low								supports only 0(0ff) 1(low) 3(H	supports only 0(Off),1(Low),3(H	supports only				
HDR	OSD:B4:[Data] QSD:B4	2	Mid								igh)	igh)	igh)				
		3	High								<u> </u>	<u> </u>	_		]		
L	OSD: B7: [Data]	0	Low Mid								0	0	0				
Night-Day Level	OSD:B7:[Data] QSD:B7	2	High														
		0	x1.4								0	0					
Disided Entender	OSD:B8:[Data]	1	x2. 0								[-	-					
Digital Extender Magnification	QSD:B8:[Data]	2 3	x4. 0 x6. 0														
1		4	x8. 0														
		1			1	1		1	1	1	1	1	1	1	1		1

	Command		Data Contents	ī													
ITEM	Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	Contirmation	0h	Response to contol 720/60p								[59.94Hz]	[59. 94Hz]					
		1h	720/59. 94p								supports only	supports only					
		2h	720/50p								1h (720/59, 94p)	1h (720/59, 94p)					
		3h 4h	1080/60i 1080/59. 94i								4h (1080/59. 94i) 7h (1080/29. 97psF)	4h (1080/59. 94i) 7h (1080/29. 97psF)					
		5h	1080/50i								10h (1080/59, 94p)	10h (1080/59, 94p)					
		6h 7h	1080/30psF 1080/29.97psF								14h (1080/29. 97p)	14h (1080/29.97p)					
		8h	1080/25psF								[50Hz]	[50Hz]					
		9h	1080/24psF								supports only	supports only					
Format_SDI	OSD:B9:[Data]	Ah Bh	1080/23.98psF 480/59.94i								2h (720/50p) 5h (1080/50i)	2h (720/50p) 5h (1080/50i)					
TOTHIAL_SDI	QSD: B9	Ch	480/29. 97psF								8h (1080/25psF)	8h (1080/25psF)					
		Dh Eh	576/50i 576/25psF								11h (1080/50p) 15h (1080/25p)	11h (1080/50p) 15h (1080/25p)					
		10h	1080/59.94p								1311 (1000/ 23p)	1311(1000/23p)					
		11h	1080/50p 480/59, 94p														
		12h 13h	480/59, 94p 576/50p														
		13h 14h	1080/29, 97p														
		15h 16h	1080/25p 1080/23, 98p														
		1011	1000, 20. 000														
Color Bar Type	OSD:BA: [Data]	0	Type2 (Full BAR/EBU)	0		0		0			0	0	V1.21+AW-SFU01				
soloi par Type	QSD: BA	1	Type1 (SMPTE) Off			ļ		1					V1 01 AW CEU01		ļ		
ALC	OSD:BB:[Data] QSD:BB	0 1	0n								0	0	V1.21+AW-SFU01				
	OSD:BC:[Data]	0	Off L Out								0	0	V1. 21+AW-SFU01				
Equalize	QSD:BC [Data]	1 2	Low Cut Voice	ĺ			1			1		1		1			
	OSD:BE:[Data]	0									0	0	V1.21+AW-SFU01				
Color Bar Title	QSD:BE	1	Off On	ĺ			1			1		1	1	1			
			[59.94Hz] [50Hz] Off Off	0		supports only 2(1/100),		supports only 2(1/100),			0	0					
		0	1/60 1/50			2(1/100), 3(1/120).		2 (1/100), 3 (1/120),									
		ż	1/100 1/100 1/120 1/125			4 (1/250)		4 (1/250)									
		3 4	1/120 1/125 1/250 1/250														
	OCD : RE : [Da+a]	4															
Auto Shutter Limit	QSD:BF		UE80, UE50, UE40, UE100, UE150														
		2 3	1/100 1/120														
		4	1/120 1/250														
		5	1/500 1/1000														
		ž	1/2000														
		61h	-31								0	0	0				
Calas Cassastian	00D · 00 · FD++=1	_	_														
Color Correction B_B_Mg Saturation	OSD: CO: [Data] OSD: CO	80h	0 _														
		9Fh	+31														
		41h	-63								0	0	0				
Color Correction	OSD: C1: [Data]	-	-								-	_	_				
B_B_Mg Phase	QSD:C1	80h _	0 _														
		BFh	+63														
		61h	-31								0	0	0				
Color Correction	OSD: C2: [Data]	- 80h	- 0				I	1		I		I		I			
Color Correction B_Mg_Mg Saturation	QSD: C2	_	_	ĺ						1		1		1			
		9Fh	+31														
		41h	-63 -								0	0	0				
Color Correction	OSD: C3: [Data]	80h	0	ĺ						1		1		1			
B_Mg_Mg Phase	QSD: C3	– BFh	- +63	ĺ						1		1		1			
								-	ļ								
		61h _	-31 -								0	0	0				
Color Correction	OSD:C4:[Data]	80h	0				I	1		I		I	Ì	I			
YI_YI_G Saturation	นอม . G4	9Fh	+31	ĺ						1		1		1			
1			-63				1	1		1				1			
L		41h -	-								0	0	0				
Color Correction YI_YI_G Phase	OSD:C5:[Data] QSD:C5	80h	0	ĺ						1		1		1			
ii_u riidse	400.00	BFh	+63				I	1		I		I	Ì	I			
-		61h	-31								0	0	0				
Color Correction	OSD: C6: [Data]	-	-	ĺ			1			1	1	[-	-	1			
YI_G_G Saturation	QSD:C6:[Data]	80h -	0 -				I	1		I		I	Ì	I			
1		9Fh	+31				I	1		I		I	Ì	I			
		41h	-63								0	0	0				
Color Correction	OSD: C7: [Data]	- 80h	- 0	ĺ						1		1		1			
YI_G_G Phase	OSD:C7:[Data] QSD:C7	_	_	ĺ						1		1		1			
		BFh	+63				I	1		I		I	Ì	I			

1754	Command		Data Contents													•	
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
E. DRS Select	OSD: C8: [Data] QSD: C8	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)				
D/C Mode (D/C Board)	OSE: 20: [Data] QSE: 20	0 1 2 3	Side Cut Squeeze Letter Box Link	Test (100 to 100 to		THE RESIDENCE OF THE PROPERTY								0	0	0	0
Matrix Type	OSE:31:[Data] QSE:31	0 1 2 3 4	Normal EBU Matrix NTSC Matrix User Professional	supports only 0 (Normal) 3 (User) 4 (Professional)	500 MI MI	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 O(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 O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only 0 (Normal) 1 (EBU Matrix) 2 (NTSC Matrix) 3 (User)	suports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix)
Soft Skin	OSE:32:[Data] QSE:32	0 1 2 3	Off Low Mid High	***************************************		And Annual State of the State o	***************************************			20.00	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 (High)			supports only 0(Off),1(Low),3(H igh)	supports only 0 (Off), 1 (Low), 3 (H igh)
DRS	OSE:33:[Data]	0 1 2 3	Off Low Mid High	0	0	0	0	0	0		supports only 0(0ff),1(Low),3(H igh)	supports only 0(Off),1(Low),3(H igh)	supports only 0(Off),1(Low),3(H igh)	0	0	supports only 0(Off),1(Low),3(H igh)	supports only 0 (Off), 1 (Low), 3 (H igh)
	QSE: 33	0 1	UE20/HE20/UE4 Off On														
HDMI Video Sampling	OSE: 68: [Data] QSE: 68	0 1 2 3 4	RGB (NOR) RGB (ENH) YPbPr (422) YPbPr (444) YPbPr (420)	UE80 supports only 2 (YPbPr (422)) 4 (YPbPr (420)) UE50, UE40 don't support		supports only 2 (YPbPr (422)) 4 (YPbPr (420))		UE150 supports only 2 (YPbPr (422)) 4 (YPbPr (420)) HE145 supports							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))
Push Auto Focus	OSE:69:[Data]	1	Push Auto Disable	O [Zoom Mode]	O [Zoom Mode]	O [Zoom Mode]		O [Zoom Mode]	0		0	0	0	0	0	0	0
Digital Zoom	OSE: 70: [Data] OSE: 70	1	Enable	-Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	-Opt Zoom	-Opt Zoom		-Opt Zoom									
Preset Scope	OSE:71:[Data] QSE:71	0 1 2	Mode A Mode B Mode C	0	0	0		0	0		0	0	0	0	0	0	0
Gamma Mode	OSE: 72: [Data] OSE: 72	0 1 2 0 1 1 2 3 4 5 6	OFF Normal Ginema UE100. UE150. HE145. HR140. HE130. HD SD FINIL IKE1 FIUM IKE2 FIUM IKE3 FILW REG VIDEO REC HLG			supports only 0 (HD) 2 (FILMLIKE1) 3 (FILMLIKE2) 4 (FILMLIKE3)		0	supports only 0(HD) 2(FILMLIKEI) 3(FILMLIKE2) 4(FILMLIKE3)		0	0	0	supports only 0 (HD) 1 (SD) 2 (FILMLIKET) 3 (FILMLIKE2) 4 (FILMLIKE3)	0	O	0
Back Light Compensation	OSE: 73: [Data] QSE: 73	0 1	Off On	0	0		0				0	0	0			0	0
Auto F.Mix Max Gain	OSE:74:[Data] QSE:74	00 01 02 03	(Off) 6dB 12dB 18dB	0	0	0					0	0	0			0	0
OSD Off With Tally	OSE:75:[Data] QSE:75	0 1	Off On	0	0	0	0	0	0		0	0	0	0	0	0	0
Digital Zoom Magnification	OSE: 76: [Data] QSE: 76	0100 - 9999	*1.00 - *99.99	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) - 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)	supports only 0100 (x1.00) - 1000 (x10.00)
Frequency	OSE: 77: [Data] OSE: 77	0 1 2 3 4	59. 94Hz 50. 00Hz 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), 4(60.00Hz)	supports only 0 (59.94Hz), 1 (50.00Hz), 2 (24.98Hz), 3 (23.98Hz)	supports only 0 (59.94Hz), 1 (50.00Hz), 4 (60.00Hz)	supports only 0 (59. 94Hz), 1 (50. 00Hz), 2 (24. 98Hz), 3 (23. 98Hz)	supports only 0(59.94Hz), 1(50.00Hz)	and the	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] QSE:7A	02 - 18	x2 _ x18	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) - 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 /	Data	Data Contents Control and					1	1	1		I			1	1	
110	Confirmation		Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
OSD Mix	OSE: 7B: [Data] OSE: 7B	00h 01h 02h 04h 08h 10h 20h 40h 80h	OSD Mix Off SDI On HDMI On Analog On Video On IP On 126 SDI/Optical On MONI On NOI On S%tic3SDI, bit1:HDMI. bit2:Analog, bit3:Video, bit4: IP, bit5:126 SDI/Optical, bit6:	UE80 supports only 00 (0SD Mix Off) 01 (36 SDI On) 02 (HDMI On) 10 (NDI HX On) 80 (NDI On) UE50 supports only 00 (0SD Mix Off) 01 (36 SDI On) 02 (HDMI On) 10 (NDI HX On) 10 (NDI HX On) 10 (NDI Mix Off) 01 (36 SDI On) 02 (HDMI On) 10 (NDI HX On)		supports only 00 (OSD Mix Off) 01 (36 SDI On) 02 (HDMI On) 10 (NDI IHX On) 20 (126 SDI On) 80 (NDI On)		UE150 supports only 00 (OSD Mix Off) 01 (SDI On) 10 (SDI On) 10 (IP On) 20 (128 SDI/OPTICAL On) 40 (MONI On) HE145 supports only 00 (OSD Mix Off) 01 (SDI On)	supports only 00 (0SD Mix OFF) 01 (SD1 On) 10 (IP On)	supports only 00 (0SD Mix Off) 01 (SDI On) 10 (IP On)				supports only 00 (0SD Mix Off) 01 (SDI On) 02 (HDMI On) 08 (Video On) 10 (IP On)	supports only 00 (0SD Mix Off) 01 (SDI '0n) 02 (HDMI On) 04 (Ana log '0n) 08 (Video '0n)		
				UE40 supports only 00(OSD Mix Off)				01 (SDI On) 01 (SDI On) 02 (HDMI On) 10 (IP On)									
Preset Digital Extender Enable	OSE:70:[Data] OSF:70	0 1	Off On	0		0		0	0					0			
Preset Zoom Mode	OSE:70: [Data] OSF:7D	0	Mode A Mode B	0		0		0	0								
Peak Frequency	OSG:30:[Data] QSG:30	00h  04h  1Fh	0 - 4 - 31							[In case HD format] 00h(0) - 1Fh(31) [In case 4K format] 00h(0) - 04h(4)							
V Detail Level	OSG:32:[Data] QSG:32	00h - 3Fh	00 - 63							0							
V Detail Frequency	OSG: 35: [Data] QSG: 35	00h  04h  1Fh	0 - 4 - 31			Manager Manage				[In case HD format] 00h(0) - 1Fh(31) [In case 4K format] 00h(0) - 04h(4)		Ban 1990					## MANUAL PROPERTY OF THE PROP
R Gain	0SG:39:[Data] QSG:39	418h - 800h - BE8h	-1000 - 0 - 1000	support only 738h(-200) - 8C8h(200)	support only 7E2h(-30) - 81Eh(30)	support only 738h (-200) - 8C8h (200)		support only 738h (-200) - 8C8h (200)		0							
B Gain	OSG:3A: [Data] QSG:3A	418h - 800h - BE8h	-1000 - 0 - 1000	support only 738h(-200) - 8C8h(200)	support only 7E2h(-30) - 81Eh(30)	support only 738h(-200) - 8C8h(200)		support only 738h (-200) - 8C8h (200)		0							
Level Dependent SW	OSG:3E:[Data] QSG:3E	0 1	Off On							0							
Knee Aperture Level	OSG:3F:[Data] QSG:3F	00h - 27h	0 - 39			supports only 00h(0) - 05h(5)		supports only 00h(0) - 05h(5)		0							
Detail +Clip	OSG: 40: [Data] QSG: 40	00h - 3Fh	0 - 63							0							
Detail -Clip	OSG:41:[Data] QSG:41	00h - 3Fh	0 - 63							0							
Memory Select	OSG: 42: [Data] QSG: 42	0 1 2	A B C							0							
H Position	OSG: 44: [Data] QSG: 44	000h - 190h	0 			No. 20. 20		and the second		0	W 45 M					NA 500 TE	
V Position	OSG: 45: [Data] QSG: 45	000h - 190h	0 - 100.00% (0.25% step)							0							
Zebra Effect Memory	OSG: 47: [Data] OSG: 47	0 1 2 3 4 5	A B C A+B A+C B+C A+B+C							0							
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							0			-				
Skin Tone Crisp	OSG: 49: [Data] QSG: 49	41h  80h  BFh	-63 - 0 - +63			N 10 10 10 10 10 10 10 10 10 10 10 10 10				0		-					

Part		Command		Data Contents	1													ı
1	ITEM	Control / Response /	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
See 1969 1969 1969 1969 1969 1969 1969 19	-	CONTINUALION	1Dh	Response to contol -99							0							
Marie   Mari	Mantas Dadantal	OSG: 4A: [Data]	-	- 0														
Hand to the control of the control o	master redestal	QSG: 4A	-	-														
The transfer of the content of the c											0							
Marchan   Marc		OSG: 4C: [Data]	-	-							O							
Marche   M	R Pedestal	QSG: 4C	-	-														
Property of the color of the											0							
Mathematical   Math		OSC: AF: [Data]	-	-							Ŭ							
State   Stat	B Pedestal	QSG: 4E	-	-														
Section   Sect																		
Note 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Skin Tone	OSG: 4F: [Data]	_	-							O							
March   Marc	u rnase																	
Mark Bark Bark Bark Bark Bark Bark Bark B	Shutter SW	OSG:59: [Data] OSG:59									O							
Part											0							
Manual	onutter Mode		·								L							
Second   S	Shutter Speed	USG:5D:[Data] QSG:5D	*								*							
Second   S			0 1	FILMLIKE1							0							
Company   Comp	Gamma Mode	OSG:86:[Data]	2 3	FILMLIKE2							1							
Transition of the control of the con		QSG: 86	4	FILM REC							1							
Marie Flue   Marie Flue Flue Flue Flue Flue Flue Flue Flu					ļ													
10   10   10   10   10   10   10   10	Chroma Level SW	USG:93:[Data] QSG:93	0 1	Off On							0							
Marker   Price   Pri			1Ch	-100							0							
Second   S	Master Flare	OSG: 96: [Data]	80h															
Marix (Red.) 20 MAY (Beel) 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0		USG: 96	_ E4h	100														
Math 1							0		0		0							
Refile # 1	Auto Knee Response	OSG:97:[Data] QSG:97	- 8	- 8														
Marix   Gold		OSG: AO: [Data]	0	Off							0							
Metrix & G. 1. 1		QSG: AO																
Metrix & G. 1. 1	Color Correct Table	OSG: A4: [Data] OSG: A4	-								0							
Matrix (0-0) 2 000 AF (10tal) 1 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			00h	-31							0							
Matrix (0-0) 2 000 AF (10tal) 1 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Matrix (R-G) N	OSG: A5: N: [Data] OSG: A5: [N P]: [Data]	1Fh	0														
Matrix (0-0) P 000 A5 (P   Deta) 1 h 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		QSG: A5: N	- 3Eh	+31														
Signature   Sign											0							
Signature   Sign	Hataia (D.O) D	OSG: A5: P: [Data]	- 1Fh	- 0														
Matrix (G-B),	Matrix (R-G)_P	QSG: A5: P	-	-														
## Act rix (G-B)_N   OSS_AST_P[Data]   OSS_AST_P	1	1									0							
SS A6.N   SB   SB   SB   SB   SB   SB   SB   S		OSG: A6: N: [Data]	- 151	-							ľ							
Series   S	Matrix (R-B)_N	OSG: A6: [N P]: [Data]	-	-														
Matrix (G-E) P 066 (AF) [P] (Data   056 (AF) [P] (D																		
Matrix (G-R)_N		OSG: A6: P: [Data]	-	-							0							
Matrix (G-R)_N	Matrix (R-B)_P	OSG: A6: [N P]: [Data]	1Fh -	0 -							1							
Matrix (G-R)_N   0SG:A7:N[Data]   1Fh   0   0   0   0   0   0   0   0   0		vou . Att . P									<u> </u>							
Matrix (G-R)_N		000 - A7 - N - FD -+ - 7	_	-31 -							0							
Matrix (G-R)_P	Matrix (G-R)_N	OSG: A7: [N P]: [Data]	1Fh	0							1							
Matrix (G-R)_P   0SS-A7: [N]P]: [Data]   1Fh   0   0   0   0   0   0   0   0   0	1	USG: A /: N									1							
Matrix (G-R)_P   0SS-A7: [N]P]: [Data]   1Fh   0   0   0   0   0   0   0   0   0		000 47 9 79 4 7	00h	-31 -							0							
Matrix (G-B)_N Matrix (G-B)_P Matrix	Matrix (G-R)_P	USG: A7: [N P]: [Data] OSG: A7: [N P]: [Data]	1Fh	0							1							
Matrix (G-B)_N		QSG: A7: P	3Eh	+31														
Matrix (G-B)_N   USG: AB: NI[D21c]   1Fh			00h	-31							0							
Matrix (G-B)_P 0SG:A8:P:[0ta] 0SG:A8:P:[0ta] 1Fh 0	Matrix (G-R) N	OSG: A8: N: [Data] OSG: A8: [N P]: [Data]	- 1Fh	- 0							1							
Matrix (G-B)_P 0SG:A8:P:[Data] 0SG:A8:P:[Data] 1Fh 0		QSG: A8: N	-	+31							1							
OSG: A8: P: [Data]	-	1									0							
Matrix (G-B)_P		OSG: A8: P: [Data]	-	-							ľ							
3Eh +31	Matrix (G-B)_P	OSG: A8: [N P]: [Data] QSG: A8: P	-	-							1							
			3Eh	+31							l							

1	Command		Data Contents														
I TEM C	Control / Response /	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
<b></b>	Confirmation	00h	Response to contol -31					3E100/11E140		0							
0	DSG: A9:N: [Data]	- 1Fh	-							Ŭ.							l
Matrix (B-R) N 0	DSG: A9: [N P]: [Data] DSG: A9: N	1Fh -	0 _														l
u u	15G . A9 . N	3Eh	+31														l
		00h	-31							0							
0 Matrix (B-R)_P 0	DSG: A9: P: [Data] DSG: A9: [N P]: [Data]	_ 1Fh	- 0														l l
macrix (b-lt)_r 0	QSG: A9: P	3Eh	+31														l
		3En 00h	+31 -31							0							
0	OSG: AA:N: [Data]	- 1Fh	-							O							
Matrix (B-G)_N 0	OSG: AA: N: [Data] OSG: AA: [N P]: [Data] QSG: AA: N	1Fh -	0 -														l
	JOU - MA - N	3Eh	+31														l l
	200 44 0 70 1 2	00h	-31 -							0							
Matrix (B-G)_P 0	OSG: AA: P: [Data] OSG: AA: [N P]: [Data]	- 1Fh	0														l l
Q	QSG: AA: P	- 3Eh	+31														l
0	NSG: BO: [Data]	0	Off							0							
Skin Area SW Q	OSG:B0:[Data] OSG:B0	1	0n														
Skin Area Table 0	OSG:B1:[Data] OSG:B1	0 1	A B							0							
	01	01h	-127							0							
Skin Area Hue 0	OSG:B2:[Data] OSG:B2	- 80h	- 0												1		
Oran vice une	QSG: B2	- FFh	+127	ĺ				1							1		
		01h	+127 -127							0							
[	000 - P2 - FD-+ - 3	-	-	1	-		_	1		Ĭ			-		_		-
Skin Area Tone Q	OSG:B3:[Data] QSG:B3	80h -	0 -												1		
		FEh	+126														l
DND 1 0	OSG:B5:[Data]	1	1							0							
O G	QSG: B5	5	5														l
Haze Reduction 0	OSG:B6: [Data] OSG:B6	0	Off On						0	0							
		1	1						0	0							
Haze Reduction 0	DSG:B7: [Data] DSG:B7	3	3							ľ							l
		0								0							
Genlock Input Q	OSG:CA:[Data] OSG:CA	i	BNC DSUB														
		3h -	-5 -							0							
H Phase-Coarse 0	OSG: CB: [Data] OSG: CB	8h	0														l
ľ	Jou. OD	_ Dh	+5														l
		1Ch -	-100							0							
H Phase-Fine 0	OSG: CC: [Data] OSG: CC	- 80h	- 0														l
n rhase-rine Q	QSG: CC	- E4h	+100														l
-			+100						×.		×	*	*	*	*		×
		0h 1h	0ff 1/50 1/60 1/100 (NSTC) 1/120 (PAL) 1/120 (NTSC) 1/100 (PAL)						*		**	*	*	*	~	*	*
		2h 3h 4h	1/60 1/100 (NSTC) 、1/120 (PAL)														l
		4h 5h	1/120 (NTSC) , 1/100 (PAL) 1/250														l
		6h	1/500														l
Shutter 0	OSH: [Data]	7h 8h	1/1000 1/2000														l
l u	DSH .	9h Ah	1/4000 1/10000														l
		Bh	Synchro-Scan														l
		Ch Dh	ELC (Auto ND) 1/24														l
		Eh	1/24 1/25														l
	_	Fh	1/30														
1 T		[Data1] 01	[Data1] Left Max. Speed			0		O (UE150) (HE145)		0							
		-	-												1		
		50 -	Stop -	ĺ				ĺ							1		
Crop H/V Position 0	OSI:15:[Data1]:[Da+a	99	Right Max. Speed												1		
Speed Control 2	2]	[Data2]	[Data2]	ĺ				ĺ							1		
		01 -	Down Max. Speed -												1		
		50 -	Stop	ĺ				ĺ							1		1
		99	UP Max. Speed	ĺ				1							1		
<del>                                     </del>		1	YI			0		O (UE150)		0							
Crop Out 0	OSI:16: [Data] OSI:16	2	G			Ī		O (UE150) (HE145)		Ī							
		ð	Mg			l	l	1	l	l	l .	l				l	

	Command		Data Contents														
ITEM	Command Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Crop Adjust	OSI:17:[Data] QSI:17	1 2 3	YI G Mg			0		O (UE150) (HE145)		0							
		[Data1] 555h	[Data1]Zoom Position Wide							0							
Request	QSI:18 QSI:18:[Data1]:[Data	FFFh [Data2] 555h	Tele [Data2]Focus Position Near														
Zoom/Focus/Iris Position	2]:[Data3]	FFFh [Data3] 555h - FFFh	Far [Data3]Iris Position Close Open														
		[Data1]	[Data1] System Version							0							
Software Version	QSI:19:[Data1] QSI:19:[Data1]:[Data 2]	1 2 3 4 5 6 [Data2] (Ver. String)	Cam Main Network ROM Table Cam FPGA AVIO FPGA Option FPGA [Data2] (ex) 01.00-000-00.00														
		0	Off YI			0		O (UE150) (HE145)		supports only 1(YI)							
Grop Marker	OSI:1A:[Data] QSI:1A	2 3 4 5 6 7	G Mg Y1+G Y1+Mg G+Mg Y1+G+Mg							2 (G) 3 (Mg) 4 (YI+G) 5 (YI+Mg) 6 (G+Mg) 7 (YI+G+Mg)							
		738h	-50% -							0							
Crop H Position	OSI:1B:[Data] QSI:1B	800h  8C8h	0% - +50% (0.25% step)														
		738h -	-50% -							0							
Crop V Position	OSI:1C:[Data] QSI:1C	800h  8C8h	0% - +50% (0.25% step)														
Auto Iris Level	OSI:1D:[Data] QSI:1D	00h - 64h	0 - 100							0							
Color Temperature	OSI:1E:[Data]	1h -	Inc 1	0		0		0		supports only 1h(Inc 1)							
Inc		Ah 1h	Inc 10 Dec 1	0		0		0		supports only							
Color Temperature Dec	OSI:1F:[Data]	– Ah	- Dec 10							1h (Dec 1)							
		[Data1] 00000h  FFFFFh	[Data1] OK -	[Data1] supports only 007D0h(2000K)		[Data1] supports only 007D0h(2000K)		[Data1] supports only 007D0h(2000K)		supports only Confirmation Command							
Color Temperature	OSI:20:[Data1]:[Data 2] QSI:20	[Data2] Oh 1h	1048575K [Data2] Valid Under Over	03A98h(15000K) [Data2] supports only 0(valid)		03A98h (15000K) [Data2] supports only 0 (valid)		03A98h(15000K) [Data2] supports only 0(valid)									
	OSI:21:[Data]	2h 0	Off On						0								
Intelligent	QSI:21	1 2	Lock														
Intelligent Mode	OSI:22:[Data] QSI:22	1 0	AE AE+ATW Through						0								
Intelligent ND Filter	OSI:23:[Data] QSI:23	1 2 3	1/8 1/64 Auto														
Intelligent AGC Mode	OSI:24:[Data] QSI:24	0 1 2	Normal Sports SN						0								
	OSI:25:[Data] QSI:25	0 1	Normal Slow Fast	0		0		0	0								
		1 2	1 1 2						0		MA - MA - MA						
ATW Width	OSI:26:[Data] QSI:26	3 4 5	3 4 5														
Super Gain	OSI:28: [Data] QSI:28	0 _1	Off On	0		0		0	0								
3G SDI 3G SDI Out	OSI:29:[Data] QSI:29	0 1	Level A Level B	O (UE80, UE50) (UE40)		0		0	0								

	Command		Data Contents														
ITEM	Command Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	CONTITUIALION	[AK-UB300]	Response to contol [AK-UB300]							0							
	051.50	0	no option 4K default														Ĭ
Option Device Type	OSI:2A:[Data]	2	12G option														İ
		3	TICO option														
DC Out	OSI:2B:[Data] QSI:2B	0	Off On						0								
HDR SW (MAIN)	OSI:2C:[Data] QSI:2C	Ó	Off On							0							
Colormetry	OSI:2D:[Data] QSI:2D	00h 01h	no effect BT. 709							0							
HDR SW (SDI1)	QS1:2D OS1:2E:[Data] QS1:2E	01h 0	0ff							0							
	QSI:2E QSI:2F:[Data]	1	On Off							0							
HDR SW (LAN)	OSI:2F:[Data] QSI:2F	1	0n							_							
Shooting Mode	OSI:30:[Data] QSI:30	1	Normal High Sens. Off			O		0		0							
HDR SW (SDI2)	OSI:31:[Data] QSI:31	0 1	0n							0							
Crop SDI2/3G SDI Out	OSI:32:[Data] QSI:32	0	Full Crop			0		O (UE150) (HE145)		0							
Crop IP Out	OSI:33: [Data] QSI:33	Ó	Full			0		O (UF150)		0							
IP Out	QS1:33	05DCh	Crop 0. 1500					(HE145)		0							
	QSI:34	- 1194h	0. 4500														1
Master Gamma	OSI:34: [Data]	1D4Ch	0. 7500														<u> </u>
																	<u> </u>
		35h _	-75 -							0							
R Gamma	OSI:35:[Data] QSI:35	80h	0														1 '
	431.33	CBh	+75														1
		35h	-75							0							
B Gamma	OSI:36: [Data] QSI:36	- 80h	0														1
o damina	QS1:36	- CBh	- +75														1
Master Gamma Inc	OSI:37:[Data]	1	Inc							0							
Master Gamma Dec HLG Mode	OSI:37: [Data] OSI:38: [Data] OSI:39: [Data]	1	Dec Fix							0							
(HDR Paint)	US1:39	1	Var							-							ļ!
SDR Convert Mode (HDR Paint)	OSI:3A:[Data] QSI:3A	1	Fix Var							0							
HLG Type Select (HDR Paint)	OSI:3B:[Data] QSI:3B	0	Normal Stretch							0							!
Black Gamma SW (HDR Paint)	OSI:3C:[Data] QSI:3C	0	Off On							0							
(IIDIX Fallic)	931.30	60h	-32							0							
Master Black Gamma (HDR Paint)	OSI:3D:[Data]	- 80h	0														1
(HDR Paint)	QSI:3D	_ A0h	+32														1
																	ļ!
		60h -	-32 -							0							
R Black Gamma (HDR Paint)	OSI:3E:[Data] QSI:3E	80h _	0 -														Ĭ
		A0h	+32														1
		60h	-32 -							0							
B Black Gamma (HDR Paint)	OSI:3F:[Data] QSI:3F	80h	0						1	1							1 '
(IUN FAIRE)	WOI - OF	A0h	+32						1	1							1 '
Knee SW	OSI:40:[Data]	0	Off					0		0							
(HDR Paint)	QSI:40	1 1Ch	0n 55. 00%					suppurt only		suppurt only							<del></del>
		- 30h	60.00%					1Ch (55%) - D0 (100%)	1	30h (60%) - D0 (100%)							1 '
		_	-					(1step=1%)	1	23 (100///							1 '
Knee Point (HDR Paint)	OSI:41:[Data] QSI:41	80h -	80.00%														1 '
(IDN TOTAL)	901.71	D0h -	100. 00%						1	1							1 '
		F4h	109.00% (1step=0.25%)						1	1							1 '
								1	1	1							<u> </u>
Knee Slope	OSI:42:[Data] QSI:42	00h -	0 -					supports only 00h - 64h		0							ļ !
(HDR Paint)	QS1:42	C7h	199					1									<u> </u>
		74h 77h	-12 -9							0							
SDR Convert Gain (HDR Paint)	OSI:43: [Data] QSI:43	7 <b>A</b> h 7Dh	-6 -3						1	1							1 '
(IIDIN FAITH)	901-40	80h	-3 0						1	1							1 '
		0	Low							0							
SDR Convert Clip (HDR Paint)	OSI:44: [Data] QSI:44	1 2	Low Mid High	ĺ													1 '
,			ango		l	l	1	<u> </u>	1	1	1	L	L		l		

	Command	1	Data Contents	ı													
ITEM	Command Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	CONTINUETON	0000000h 0000001h 0000002h 0000004h	No Error Fan Error High Temperature Lens Error	0	-	0		0		MICH. 200				***************************************			
Error Information	QSI:46 QSI:46:[Data]	00000008h 00000010h	Pan/Tilt Error Sensor Error														,
			Temperature, bit2:Lens Error, bit3:Pan/Tilt Error, bit4:Sensor Error														
Auto Iris Speed	0SJ:01:[Data] QSJ:01	0h 1h 2h	Slow Normal Fast	0		0		0									
Auto Iris Window	0SJ:02:[Data] QSJ:02	0h 1h 2h	Normal1 Normal2 Center	0		0		0									
Shutter Mode	OSJ:03:[Data] QSJ:03	0h 1h 2h 3h	Step Synchro ELC		supports only 0(Off) 1(Step) 2(Synchro)		supports only 0(Off) 1(Step)	O									
Shutter Step Inc	0SJ:04:[Data]	01h - 64h	1 - 100	0	0	0	0	0									
Shutter Step Dec	0SJ:05:[Data]	01h - 64h	1 	0	0	0	0	0									
Shutter Step Value	OSJ:06:[Data] QSJ:06	0001h - 2710 h	1/1 - 1/10000	supports only 0018h (1/24) - 2710h (1/10000)	0	supports only 0018h(1/24) - 2710h(1/10000)	0	supports only 0018h(1/24) - 2710h(1/10000)		-							
		3E80h 01h	1/16000	0	0	0		0									
Shutter Synchro Inc	0SJ:07:[Data]	- 64h 01h	- 100	0	0	0		0									
Shutter Synchro Dec	0SJ:08:[Data]	64h 00000h	100	cupports only	supports only	supports only											<u> </u>
Shutter Synchro Value	OSJ:09:[Data] QSJ:09	186A0h	0.0 [Hz] - 10000.0[Hz]	supports only 000F0h(24.0Hz) - 119940(7200.0Hz)	supports only 001F4h (50. 0Hz) - 019C8h (660. 0Hz)	supports only 000F0h (24. 0Hz) - 119940 (7200. 0Hz)		supports only 000F0h(24.0Hz) - 119940(7200.0Hz)									
Chroma Phase	OSJ:OB:[Data] QSJ:OB	61h - 80h	-31 - 0	0		0		0									
AWB Gain Offset	OSJ: OC: [Data] QSJ: OC	9Fh 0	- +31 Off	0		0		0									
		1 76h -	On -10 -	0		0		0									
ATW Target R	OSJ:OD:[Data] QSJ:OD	80h - 8 <b>A</b> h	0 - +10														
ATW Target B	0SJ:0E:[Data] QSJ:0E	76h  80h	-10 - 0	0		0		0									
	400.02	- 8Ah 738h	+10 -200	0	supports only	0		0									
Master Pedestal	OSJ:OF:[Data] QSJ:OF	800h -	- 0 -		supports only 7F6h(-10) - 80Ah(10)												
	00 I+10+ [Da++3	8C8h 032h -	+200 -100 -			0		0									
	OSJ:10:[Data] QSJ:10	096h - 0FAh	0 - +100														
	OSJ:11:[Data] QSJ:11	0 1	Off On			0		0									
Detail Coring	0SJ:12:[Data] QSJ:12	00h - 3Ch	0 - 60	Ŭ	-								_			_	
Level Depend.	OSJ:13:[Data] QSJ:13	79h  80h 	-7 - 0 -			0		0									
	OSJ:14: [Data] QSJ:14	87h 0	7 Off On					O (UE150) (HE145)									
		1 61h -	0n -31 -					O (UE150) (HE145)									
Down Convert Master Detail	OSJ:15:[Data] QSJ:15	80h - 9Fh	0 - +31					(IIEITO)									
I	l		L	I	l	L	I	1	l	1	I	I	i	l	l	I	

	Command	Ī	Data Contents	Ī													
ITEM	Control / Response /	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
ļ	Confirmation	00h	Response to contol 0	ULUU/ UEUU/ UE4U	ULZV/ NEZV	02100	UE4	O (UE150)	18(140	00300	UL/USETTES	11L42561 168	IIL4038FT88	112130	112120	HEOU	11200
Down Convert Detail Coring	OSJ:16:[Data] QSJ:16	00h - 3Ch	- 60					(HE145)									
		79h	-7					O (UE150)									
Down Convert V	OSJ:17:[Data]	- 80h	- 0					(HE145)									
Detail Level	QSJ:17	-	-														
		87h	+7														
		7Eh	-2					O (UE150)									
Down Convert Detail	OSJ:18: [Data]	- 80h	0					(HE145)									
Frequency	QSJ:18	-	-														
		82h	+2														
		79h	-7					O (UE150) (HE145)									
Down Convert Level Depend.	OSJ:19:[Data]	80h	0					(IIL143)									
Depend.	QSJ:19	- 87h	- +7														
		67n 00h						O (UE150)									
		01h	0					O (UE150) (HE145)									
Down Convert Knee	OSJ: 1A: [Data]	02h	2														
Ape Level	QSJ: 1A	03h 04h	3														
		05h	5														
-		1	1			0		0									
Black Gamma Range	OSJ:1B:[Data] QSJ:1B	2	2					1	I			I					
	430 · 1D	3	3														
	1	41h -	-63 -	0		0		0									
Color Correction	OSJ:10:[Data] QSJ:10	80h	0														
Yl_Yl_G Saturation	QSJ:10	- BFh	- 63														
		41h -	-63 -	0		O		٥									
Color Correction YI_YI_G Phase	OSJ:1D:[Data] QSJ:1D	80h	0														
Tiga Thase	400.10	BFh	63														
		01h	720/59.94p			0		O (UE150)									
		02h	720/50p			o .		(HE145)									
		04h 05h	1080/59.94i 1080/50i														
		07h	1080/29.97PsF														
		08h 0Ah	1080/25PsF 1080/23.98PsF														
		10h	1080/59.94p														
		11h 14h	1080/50p 1080/29.97p														
12G SDI/Optical Out Output Format	OSJ:1E:[Data] QSJ:1E	15h	1080/25p														
Output Format	430 · IL	15h 16h 17h	1080/23.98p (over 59.94i/p) 2160/29.97p														
		18h	2160/25p														
		19h 1Ah	2160/59.94p 2160/50p														
		1Bh	2160/23.98p														
		21h	2160/24p														
		22h 23h	1080/24p 1080/23.98p														
-	<del>                                     </del>	0h	SDR					O (UE150)									
12G SDI/Optical Out	OSJ:1F:[Data]	1h	HDR (2020)					(HE145)	1	1		1					
HDR Output Select	QSJ:1F	2h	HDR (709)						1			1					
12G SDI/Optical	OSJ:20:[Data]	0h	Level A			0		O (UE150)									
3G SDI Out	QSJ:20	1h	Level B					(HE145)	1			1					
	1	01h	720/59.94p	O (UE80, UE50)		0		0									
	I	02h 04h	720/50p 1080/59.94i	(UE40)					I			I					
	1	05h	1080/50i						1	1		1					
	1	07h 08h	1080/29.97PsF 1080/25PsF						1			1					
3G SDI Out	0S.I: 21: [De+a]	0Ah	1080/23.98PsF		Ì				I			I				Ì	
Output Format	OSJ:21:[Data] QSJ:21	10h	1080/59.94p 1080/50p						1	1		1					
	I	11h 14h	1080/29.97p		Ì				I			I				Ì	
	I	15h	1080/25p		Ì				I			I				Ì	
	1	16h 22h	1080/23.98p (over 59.94i/p) 1080/24p						1	1		1					
	1	23h	1080/23.98p						1			1					
	<del> </del>	0	SDR					0									
3G SDI Out	OSJ:22:[Data] QSJ:22	1	HDR(2020)						1	1		1					
HDR Output Select	₩SJ - ZZ	2	HDR(709)						1	1		1					]

	Command		Data Contents	1													T
ITEM	Command Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	OSJ: 23: [Data] OSJ: 23: [Data] OSJ: 24: [Data] OSJ: 24: [Data]	01h 02h 04h 05h 07h 08h 0Ah 14h 15h 16h 22h 23h	720/59 840 720/50p 720/50p 1080/59 94i 1080/59 94i 1080/29 97PeF 1080/25 98PeF 1080/25 997p 1080/25 997p 1080/25 90/50 1080/25 9					O (UE150) (HE145)  O (UE150) (HE145)									
HDMI Out Output Format	0\$J:25: [Data] 0\$J:25	01h 02h 04h 05h 10h 11h 14h 15h 16h 17h 18h 19h 14h 1Bh 21h 22h	720/59.94p 720/59.94i 720/59.94i 1080/59.94i 1080/59.94p 1080/59.97p 1080/25p 1080/25p 2180/25p 2180/25p 2180/59.94p 2180/23.99p 2180/23.99p 2180/23.99p	O(UE80) UE50 does't support 19h 2160/59,94 1Ah 2160/59,95 UE40 does't support 16h 1080/23,98h(over 59,94/5),19h 2160/59,94p 1Ah 2160/50,p		O		O (UE150)  HE145 doesn't t support The Tibe Tibe Tibe Tibe Tibe Tibe Tibe Tib									
HDMI Out HDR Output Select	OSJ:26:[Data] QSJ:26	0 1 2	SDR HDR(2020) HDR(709)					O									
Color Bar Tone	OSJ:27:[Data] QSJ:27	0 1 2	Off Low Normal	0		0		0									
Toutch AF	OSJ: 28: [Data1] : [Data 2]	[Data1] 00h 	[Data1]H Position 0%	0		0		0									
Preset Speed Unit	OSJ:29:[Data] QSJ:29	0 1	Speed Table Time	0		0		0									
Preset Crop	OSJ:2A:[Data] QSJ:2A	0	Off On			0		O (UE150) (HE145)									
Preset Thumbnail	OSJ:2B:[Data]	0	Off On	0		0		0									
Update Preset Name	QSJ:2B OSJ:2C:[Data] QSJ:2C	0	Reset	0		0		0									
	0SJ: 2C 0SJ: 2D: [Data] QSJ: 2D	0 1 2 0 1 2	Hold  JE100 Normal Fast1 Fast2  JE150 Normal Fast Quick	0		0		0									
UHD Crop	OSJ:2E:[Data] QSJ:2E	0 1 2	Off Crop(1080) Crop(720)			0		O (UE150) (HE145)			-						
Crop H Position (YI)	0SJ: 2F: [Data] QSJ: 2F	000h 	0 - 1920 - 2560 - 3072			0		UE150 supports only 000h (0) - A00h (2560) (1step=2pix) HE145 doesn't support									
Crop V Position (YI)	OSJ:30:[Data] QSJ:30	000h 	0 - 1080 - 1440 - 1728			O		UE150 supports only 000h(0) - 5A0h(1440) HE145 doesn't support									

	Command		Data Contents														
ITEM	Control / Response /	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	Confirmation	000	Response to contol	UE00/UE30/UE40	UEZU/ REZU	05100	UE4	UE150 supports	HK140	00000	UE/OSEFTES	nc42series	nc40series	HEISU	HE120	HEOU	HESU
		000h -	0 -			O		only									
		780h	1920					only 000h (0)									
O II D'h' (O)	OSJ:31:[Data] QSJ:31	A00h	2560					A00h (2560)									
Crop H Position (G)	QSJ:31	_ C00	-					(1step=2pix)									
		600	3072					HE145 doesn't									
								support									
		000h	0			0		UE150 supports									
		- 438h	1080					only 000h (0)									
	OSJ:32:[Data]	-	-					-									
Crop V Position (G)	OSJ:32:[Data] QSJ:32	5A0h -	1440					5A0h (1440)									
		6C0	1728					HE145 doesn't									
								support									
		000h -	0 -			0		UE150 supports									
		780h	1920					only 000h (0)									
	00 1:22: [Da+a]	_ A00h	_ 2560					– A00h (2560)									
Crop H Position (Mg)	QSJ:33	-	-					(1step=2pix)									
		C00	3072					HE145 doesn't									
								support									
-		000h	0			0		UE150 supports									
		- 438h	1080					only 000h (0)									
	00 1: 24: FD=+=1	-	-					-									
Crop V Position (Mg)	QSJ:34	5A0h	1440					600h (1728)									
		6C0	1728					HE145 doesn't									
								support									
		[Data1]	[Data1]	[Data2]		[Data2]		[Data2]									
		00	Preset001	use only follow charactors		use only follow charactors		use only follow charactors									
	OSJ:35:[Data1]:[Data	99	Preset100	A-Z, a-z, 1-9,		A-Z, a-z, 1-9,		A-Z, a-z, 1-9,									
Save Preset Name	2] QSJ:35:[Data1]	[Data2] xxxxxxxxxxxxxx	[Data2] Preset Name (Fixed 15 Charactors)	_, Half-Width Space		_, Half-Width Space		_, Half-Width Space									
			,														
		[Data] 00	[Data] Preset001	0		0		0									
Delete Preset Name (Single)	OSJ:36:[Data]	_	-														
(Sirigle)		99	Preset100														
Delete Preset Name	0SJ:37	-		0		0		0									
(AII)	000.07	[Data]	[Data]	0		0		0									
Update Preset	001.00.50 . 3	00	Preset001	Ŭ		Ŭ		Ŭ									
Thumbnail	OSJ:39:[Data]	- 99	Preset100														
Delete Preset		[Data] 00 –	[Data] Preset001	$\sim$				ľ		_							
Thumbnail (Single)	OSJ:3A:[Data]	- 99	Preset100			]					I						
		22															
Delete Preset Thumbnail (All)	OSJ: 3B	-		0		0		0									
, , , , , , , , , , , , , , , , , , ,		[Data1] 00h 01h 02h 03h 04h 05h 06h 07h	[Data1]	0		0		0									
		00h 01h	Preset 001-009 Preset 010-018 Preset 019-027								I						
		02h	Preset 019-027								I						
		03n 04h	Preset 028-036 Preset 037-045								1						
		05h	Preset 046-054 Preset 055-063								1						
Preset Name / Preset	QSJ:3C:[Data1] OSJ:3C:[Data1]:[Data	07h	Preset 064-072								1						
Thumbnail Counter	υου. 30. [Datai]. [Data 2]	08h 09h 0Ah 0Bh	Preset 073-081 Preset 082-090								1						
		0Ah	Procet 001-000			]					I						
		0Bh [Doto 2]	Preset 100 [Data2]														
		[Data2] 00000000h	000000000h														
		- FFFFFFFFh	- FFFFFFFFh														
7 6	QSJ:3D	000h -	0	0		0		0									
Zoom Scale	QSJ:3D OSJ:3D:[Data]	3E7h	999								I						
Operation Lock	OSJ:3E:[Data]	xxxxxxx	Any Information (40 Charactors)	0		0		0									
				0		0											
Release Operation Lock	0SJ:3F			J		9		J									

			Data Contents														
ITEM	Command Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	OOTI TTIIIZETOIT	[Data1]	Response to contol [Data1]	0		0		0									
Operation Lock	QSJ:40	0 1	Unlock Lock														
Status	OSJ:40: [Data1]: [Data 2]	[Data2] xxxxxxx	[Data2] Any Information (40 Charactors)														
		AAAAAAA	7 thy Internation (10 Online doctors)														
	OSJ:41:[Data]	0	Off R-Tally	O (UE80, UE50) (UE40)		0		0									
External Output 1	OSJ:41:[Data] QSJ:41	2	G-Tally	(UL4U)													
F. t 1 0 to 1 0	OSJ:42:[Data]	0	Off R-Tally	O (UE80, UE50) (UE40)		0		0									
External Output 2	QSJ: 42	2	G-Tally	(0L40)													
	00 1: 45 : [0 - + - ]	0	None Standby	supports only 1 (Standby)		supports only 1 (Standby)		0									
Power On Position	OSJ:45:[Data] QSJ:45	2	Home	2 (Home)		2 (Home)											
		3 00	Preset Preset001	3 (Preset)		3 (Preset)		0									
Power On Preset Number	OSJ:46:[Data] QSJ:46	-	-					Ü									
Number	400.40	99 1h	Preset100														
AWB Color	OSJ:48:[Data]	– Ah	10			Ŭ.		O									
Temperature Inc																	
AWB Color	OSJ:49:[Data]	1h -	1 -			0		0									
Temperature Dec	050.49.[Data]	Ah	10														
		[Data1] 007D0h	[Data1] 2000K	○(Query Only)		0		0									
	001.44.50 . 43.50 .	-	-														
AWB Color Temperature	OSJ:4A:[Data1]:[Data 2]	03A98h [Data2]	15000K [Data2]														
Tomporacaro	QSJ:4A	0 1	Valid Under														
		2	0ver														
		670h	-400 -			0		0									
AWB R Gain	OSJ:4B:[Data]	800h	0														
	QSJ:4B	990h	400														
		670h	-400			0		0									
	OSJ:4C:[Data]	- 800h	- 0														
AWB B Gain	QSJ:4C	990h	400														
		670h -	-400 -			O		O									
AWB G Axis	OSJ:4D:[Data] QSJ:4D	800h -	0 -														
		990h	400														
	OSJ:4E:[Data]	0 1	0ff x1. 4	0	0	0		0									
Digital Extender	QSJ:4E	2	x2. 0														
Adaptive Matrix	OSJ:4F:[Data] QSJ:4F	0	Off On	0		0		0									
	0SJ:54:[Data] QSJ:54	0	Off	O (UE80) (UE50, UE40)		0		O (UE150) (HE145)									
Serial Out Tracking Data Output	QSJ:54 OSJ:55:[Data] QSJ:55	0	On Off	(UE50, UE40) O (UE80) (UE50, UE40)		0		(HE145) O (UE150) (HE145)									
	QSJ:55 OSJ:56:[Data] QSJ:56	0	Normal	(UE50, UE40)				(HE145) O (UE150) (HE145)									
Color Setting 12G SDI/Optical Out	OSJ:57:[Data]	1 0	V-I og					O (UE150)									
V-Log Output Select	QSJ:57 QSJ:58:[Data]	1 0	V-Log V-709	<u> </u>				(HE145)			<u> </u>						
3G SDI Out V-Log Output Select	QS.1: 58	1	V-Log V-709					O (UE150) (HE145)									
V-Log Output Select	OSJ:59:[Data] QSJ:59	0 1	V-Log V-709					O (UE150) (HE145)									
HDMI Out V-Log Output Select	OSJ:5A:[Data] QSJ:5A	0 1	V-Log V-709					O (UE150) (HE145)									
Preset Iris	OSJ:5B:[Data] OSJ:5B	0	Off On	0		0		0									
Camera Title	OSJ:5C:[Data] OSJ:5C	xxxxxxx	Camera Title (Fixed 40 Charactors : ASCII CODE)	0		0		0									
	300.30	[Data1]	[Data1]			0		O (UE150)									
		01 -	Left Max. Speed	1				(HE145)			1						
		50 -	Stop -	1							1						
Crop H/V Position	OSJ:5D:[Data1]:[Data	99	Right Max. Speed								1						
Speed Control (YI)	2]	[Data2]	[Data2]	1							1						
		01 -	Down Max. Speed								1						
		50 -	Stop -														
		99	UP Max. Speed	•				1		1					1		

	Command		Data Contents	1													
ITEM	Command Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		[Data1] 01	[Data1] Left Max. Speed			0		O (UE150) (HE145)									
		- 50	Stop					(IIE143)									
		- 99	Right Max. Speed														
Crop H/V Position Speed Control (G)	OSJ:5E:[Data1]:[Data 2]	[Data2]	[Data2]														
(G)	21	01	Down Max. Speed														
		50	Stop														
		99	UP Max. Speed														
		[Data1] 01	[Data1] Left Max. Speed			0		O (UE150) (HE145)									
		50	Stop					(ILT 10)									
		99	Right Max. Speed														
Crop H/V Position Speed Control (Mg)	OSJ:5F:[Data1]:[Data 2]	[Data2]	[Data2]														
(Mg)	~	01	Down Max. Speed														
		50 -	Stop														
	1	99	UP Max. Speed														
		[Data1] 000h - C00h	[Data1] H Position (YI) 0 - 3072			0		UE150 [Data1, 3, 5]									
	1	[Data2] 000h - 6C0h	[Data2] V Position (YI) 0 - 1728					H Position (YI, G, Mg)									
		[Data3] 000h - C00h	[Data3] H Position (G) 0 - 3072					supports only 000h(0)									
	001.00.50 . 43.50 .	[Data4] 000h - 6C0h	[Data4] V Position (G) 0 - 1728					A00 (2560)									
Get Crop H/V Position	QSJ:60:[Data1]:[Data 2]:[Data3]:[Data4]:[	[Data5] 000h - C00h	[Data5] H Position (Mg) 0 - 3072					[Data2, 4, 6]									
(YI, G, Mg)	Data5]:[Data6] OSJ:60	[Data6] 000h - 6C0h	[Data6] V Position (Mg) 0 - 1728					V Position (YI, G, Mg)									
		30011	1720					supports only 000h(0)									
								5A0 (1440)									
								HE145 doesn't									
01	OSJ:80:[Data]	0	Off		0		0	support									
Slow Shutter	QSJ:80	1 0	On Off				0										
Mirror	OSJ:81: [Data] QSJ:81	1 0	On English		0		0										
Language	OSJ:82:[Data] QSJ:82	1 2	Japanese Chinese														
LDC	OSJ:84: [Data] QSJ:84	0 1	Off On				0										
Manual Iris Close Limit	OSJ:90:[Data] QSJ:90	0 1	Off On	0		0											
Crop AF	OSJ:91:[Data] QSJ:91	0 1	Off On			0											
Crop Zoom	OSJ:92:[Data] QSJ:92	0 1	Off On			0											
Crop NDI Out	OSJ:93: [Data]	0 1	Full Crop			0											
Crop IP Out2	OSJ:94:[Data] QSJ:94	0 1	Full Grop			0											
Crop Zoom Ratio	OSJ:98:[Data] QSJ:98	02EE0h -	120. 00%			0											
Crop Zoom Ratio	0SJ:99:[Data]	0C350h 02EE0h	500. 00% 120. 00%			0											
(G)	QSJ:99		- 500. 00%														
Crop Zoom Ratio (Mg)	OSJ:9A:[Data] QSJ:9A	-	120. 00%			0											
,mg/		0C350h [Data1]	500.00% [Data1] Zoom Ratio (YI)			0											
	1	02EE0h	120. 00%														
		0C350h [Data2]	500.00% [Data2] Zoom Ratio (G)														
Crop Zoom Ratio (YI/G/Mg)	OSJ:9B:[Data1]:[Data 2]:[Data3]	02EE0h -	120.00%														
(11/ U/ mg/	QSJ:9B	0C350h [Data3]	500.00% [Data3] Zoom Ratio (Mg)														
	1	02EE0h	120. 00%														
		0C350h	500. 00%														
	1	01	Wide Max. Speed			0											
Crop Zoom Ratio	OSJ:9C:[Data] QSJ:9C	49 50 51	Wide Min. Speed Stop														
Speed Control	QSJ:9C	-	Tele Min. Speed -														
		99	Tele Max. Speed													]	
						-	-	_						-			

	Command		Data Contents	1													
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		01	Wide Max. Speed			0											
Crop Zoom Ratio	OSJ:9D:[Data]	49 50	Wide Min. Speed Stop														
Speed Control (YI)	QSJ:9D	50 51 -	Tele Min. Speed														
		99	Tele Max. Speed														
		01	Wide Max. Speed			0											
Crop Zoom Ratio	OSJ:9E:[Data]	49 50 51	Wide Min. Speed Stop														
Speed Control (G)	QSJ:9E	51	Tele Min. Speed														
		99	Tele Max. Speed														
		01	Wide Max. Speed			0											
Crop Zoom Ratio	OSJ:9F:[Data]	49 50	Wide Min. Speed Stop														
Speed Control (Mg)	QSJ:9F	51	Tele Min. Speed														
		99	Tele Max. Speed														
		[Data1] 01 - 50 - 99	[Data1] (YI) Left Max. Speed - Stop			0		O (UE150) (HE145)									
		01 - 50 - 99 [Data2]	Right Max. Speed - Stop - Right Max. Speed [Data2] (YI)					(HE145)									
		01 - 50 - 99	Down Max. Speed - Stop - UP Max. Speed														
		[Data3]	[Data3] (G)														
Crop H/V Position	OSJ:A0:[Data1]:[Data	01 - 50 - 99	Left Max. Speed - Stop - Right Max. Speed														
Speed Control (YI/G/Mg)	2]:[Data3]:[Data4]:[ Data5]:[Data6]	[Data4] 01 - 50 - 99	[Data4] (G) Down Max. Speed - Stop														
		[Data5]	- UP Max. Speed [Data5] (Mg)														
		01 - 50 - 99	Left Max. Speed - Stop - Right Max. Speed														
		[Data6] 01 - 50 - 99	[Data6] (Mg) Down Max. Speed - Stop														
			- UP Max. Speed														
		[Data1] 01	[Data1] (YI) Wide Max. Speed			0											
		- 49	- Wide Min. Speed														
		50 51	Stop Tele Min. Speed														
		99	Tele Max. Speed														
		[Data2] 01	[Data2] (G) Wide Max. Speed														
Crop Zoom Ratio		49	Wide Min. Speed Wide Min. Speed														
Speed Control (YI/G/Mg)	OSJ:A1:[Data1]:[Data 2]:[Data3]	50 51	Stop														
(11/d/mg)		-	Tele Min. Speed														
		99 [Data3]	Tele Max. Speed [Data3] (Mg)														
		01 -	Wide Max. Speed														
		49 50	Wide Min. Speed Stop														
		51 -	Tele Min. Speed														
		99	Tele Max. Speed														
P/T Acceleration	OSJ: A2: [Data] QSJ: A2	0 1	Manua l Auto	O (UE80) (UE50, UE40)		0											
P/T Rise S-Curve	OSJ:A3:[Data] QSJ:A3	00h -	0 -	○ (UE80) (UE50, UE40)		0											
27.5.11.0.0	OSJ: A4: [Data]	1Eh 00h	30	O (UE80)		0											
P/T Fall S-Curve	QSJ: A4	- 1Eh	- 30	(UE50, UE40)													
P/T Rise Acceleration	OSJ:A5:[Data] QSJ:A5	01h -	1 -	O (UE80) (UE50, UE40)		0											
P/T Fall	OSJ: A6: [Data]	FFh 01h	255 1	O (UE80)		0											
Acceleratoin	QSJ: A6	- F <u>F</u> h	255	(UE50, UE40)													
Privacy Mode	OSJ:A7:[Data] QSJ:A7	0 1	Off On	0		0											
Preset Acceleration	OSJ: A8: [Data] QSJ: A8	0	Manua I Auto	○ (UE80) (UE50, UE40)		0		0									
Preset Rise S-Curve	OSJ:A9:[Data] QSJ:A9	00h -	0 -	O (UE80) (UE50, UE40)		0											
		1Eh 00h	30 0	O (UF80)		0											
Preset Fall S-Curve	OSJ:AA:[Data] QSJ:AA	1Eh	30	(UE50, UE40)													
Preset	OSJ: AB: [Data]	01h	1 -	O (UE80) (UE50, UE40)		0		supports only 01h(1)-06h(6)									
Rise Acceleration	QSJ: AB	FFh	255	(0000, 0040)				J(1) VOIT(0)									

	Command		Data Contents														
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Preset Fall Acceleration	OSJ:AC:[Data] QSJ:AC	01h - FFh	1 - 255	○ (UE80) (UE50, UE40)		0											
Preset Rise Ramp Time	OSJ:AD:[Data] QSJ:AD	01h - 64h	0. 1s - 10. 0s	O (UE80) (UE50, UE40)		0											
Preset Fall Ramp Time	OSJ:AE:[Data] QSJ:AE	01h - 64h	0. 1s - 10. 0s	O (UE80) (UE50, UE40)		0											
Crop H Position	OSJ:AF:[Data] QSJ:AF	000h - C00h	0 0 - 3072			0											
Crop V Position	OSJ:BO:[Data] QSJ:BO	000h - 600h	0 - 1728			0											
Crop Zoom Ratio	OSJ:B1:[Data] QSJ:B1	02EE0h - 0C350h	120.00% 			0											
Auto Iris Close Limit	OSJ:CO:[Data] QSJ:CO	0 1 2	000,00% 0ff F8 F7 F5 6					0									
Tracking Data Output Invert Pan/Tilt Axis	OSJ:C1:[Data] QSJ:C1	0 1	73. 0 Off On	O (UE80) (UE50, UE40)		0		O (UE150) (HE145)									
Zoom Position	OSJ:C2: [Data1]: [Data 2]: (Data3]: (Data4]: [ Data5]: (Data6]: [Data 7]: [Data8]: (Data9]	[Data1] 01 - 50 - 99 [Data2] 01 - 50 - 99 [Data3] 01 - 50 - 99 [Data4] 01 - 50 - 99 [Data5] 01 - 50 - 99 [Data6] 01 - 50 - 99 [Data7] 01 - 50 - 99 [Data8] 01 - 50 - 99 [Data8] 01 - 50 - 99	(Data1) VL. H Crop Position Left Max. speed - Stop - Right Max. speed (Data2) VL. V Crop Position Down Max. speed - Stop - UP Max. speed (Data3) G H Crop Position Left Max. speed - Stop - Right Max. speed - Stop - Right Max. speed - Stop - Right Max. speed - Stop - Wax. speed - Stop - UP Max. speed - Stop - UP Max. speed (Data5) G V Crop Position Left Max. speed - Stop - Right Max. speed - Stop - Right Max. speed - Stop - Right Max. speed - Stop - Stop - Stop - Stop - Tele Max. speed (Data3) G Crop Zoom Position Wide Max. speed - Stop - Tele Max. speed (Data3) G Crop Zoom Position Wide Max. speed - Stop - Tele Max. speed (Data6) G Crop Zoom Position Wide Max. speed - Stop - Tele Max. speed			0											
Request Crop Position/ Crop Zoom Position	OSJ:C3:[Data] OSJ:C3	(Data1) 000h - 000h (Data2) 000h - 600h (Data3) 000h - 000h (Data4) 000h - 600h (Data5) 000h - 000h (Data6) 000h - 000h (Data6) 000h - 000h (Data7) 02E00h - 00350h (Data9) 02E00h - 00350h	[Data1] M Position (YL)  - 3072 [Data2] V Position (YL)  - 1728 [Data3] M Position (S)  - 0 - 3072 [Data4] V Position (S)  - 0 - 3072 [Data4] V Position (S)  - 1728 [Data5] M Position (MO)  - 0 - 3072 [Data6] V Position (MO)  - 0 - 3072 [Data6] V Position (MG)  - 3072 [Data6] Z Doom Ration (MC)  - 1728 [Data7] Z Doom Ration (NC)  - 1820 (OS) - 500, OS)  [Data8] Z Doom Ration (MS)  - 1820 (OS) - 500, OS)  [Data9] Z Doom Ration (MS)			0											
Spotlight COMP.	OSJ:DO:[Data] QSJ:DO	0	Off On	0													
Flicker Suppression	OSJ:D1:[Data] QSJ:D1	0	Off On	0													
ND Filter Status	OSJ:D2:[Data] QSJ:D2	0 1 2	Through 1/4 ND 1/16 ND	O (UE80) (UE50, UE40)							Television and						
USB Mode	OSJ:D3:[Data]	3 0	1/64 ND Off	(UE80) O (UE50, UE40)													
USB Auto Active	QSJ:D3 OSJ:D4:[Data] OSJ:D4	0	On Off On	○ (UE50, UE40) (UE80) ○ (UE50, UE40)													
Preset Shutter	QSJ:D4 OSJ:D0:[Data] QSJ:D5	0	Off On	O (0E30, 0E40)													
1	490 · N2	I	Un	·	<u>I</u>	1	1	1	ı	1	1	1	l	l .	1	I.	<u> </u>

	Command		Data Contents														Ī
ITEM	Control / Response / Confirmation	Data	Control and	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
	CONTINUALION	[Data1]	Response to contol [Data1] Scene (From)	0													
		1 2	Scene 1 Scene 2														
		3	Scene3														
	OSJ:D6:[Data1][Data2	4	Full Auto														
Scene Copy	1	[Data2]	[Data2] Scene (To) Scene1														
		2	Scene2														
		3 4	Scene3 Full Auto														
		•	HD	_													
		00 01	Normal	O													
Gamma Mode	OSJ:D7:[Data] QSJ:D7	02 03	Cinema1 Cinema2														
		04	Still Like														
AF Sensitivity	OSJ:D8:[Data] QSJ:D8	0	Normal	0													
	QSJ:D8 OSJ:D9:[Data]	1 0	Stable Unlimited	0		0		0									
Tally LED Limit R	OSJ:D9:[Data] QSJ:D9 OSJ:D4:[Data]	1	Limited Unlimited	0		0		0									
Tally LED Limit G	OSJ:DA:[Data] QSJ:DA	1	Limited	0		0		O									
Tally LED Limit B	OSJ:DB:[Data] QSJ:DB	0	Unlimited Limited	(UE80) O (UE50, UE40)													
USB Auto Standby	OSJ:DC:[Data] QSJ:DC	0	Off On	(UE80) O (UE50, UE40)													
Tracking Data		00h	0x00			0		O (UE150) (HE145)									
Output Camera ID	OSJ:F4:[Data] QSJ:F4	- FFh	– 0xFF				<u> </u>	(HE145)									
		000h 001h	-511 -511													0	0
1	00N+ FD-+-3	002h	-511		1		1										
SC Fine	OSN: [Data] QSN	_ 200h	0														
		- 3FFh	- +511														
0.5: 1/	001	JIII															
Software Version (System Version)	QSV OSV:[Data]		Software Version	O	O	O	0	0	0		0	O	0	0	O	O	O
		00h	-10						0		0	0	0	0	0	0	0
		1Eh	0														
		- 3Ch	+10														
T Pedestal	OTD: [Data]																
1 Todosta1	QTD	00h	HR140, HE130, HE120 -150														
		- 1Eh	0														
		- 30h	- 150														
		000h -	-150 -						0		0	0	0	0	O	O	0
1		096h -	0 -		1		1										
		12Ch	+150		1		1										
T Pedestal	OTP: [Data]		UE70series, HE75series, HE70serie		1		1										
. I cuoscal	QTP	000h	s, HE60, HE50 -10		1		1										
1		- 096h	- 0		1		1										
		_	_				1										
		12Ch	10				<u> </u>	<u> </u>									
Serial Com. Protocol	OVP:02:[Data] QVP:02	0	Panasonic Standard		0												
Serial Connector	OVP:03: [Data] QVP:03	0	RS422		0												
Select Serial Baud Rate	OVP:04:[Data]	0	RS232C 9600bps		0												
ocilal paud rate	QVP:04	1 0	38400bps Auto		0												
1		i i	1		Ī		1										
Serial Camera	OVP:05:[Data]	3	3		1		1										
Address	QVP: 05	4 5	4 5		1		1										
		6	6		1		1										
AWC/AWB SET	OWS		AWC/AWB Start	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TLR: [Data]	0	0ff	0		0		0		0							
R-Tally Control	QLR OLR: [Data]	1	0n		1		1										
	TLG: [Data]	0	0ff	0		0		0		0							
G-Tally Control	QLG OLG: [Data]	1	0n		1		1										
	XSF: [Data]	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Scene File	QSF OSF: [Data]		1		1		1										
	oo [bata]		•				1	-		1			1			1	

# PT command

PI comma		1	1	ī												
ITEM	Command Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		[Data1] 0000h	[Data1]Pan Position CCW Limit	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan	supports only Pan
		8000h	- Center	2D09(CCW Limit) -D2F5(CW Limit)	2F69(CCW Limit) -D097(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	8000(Center) Tilt	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)
		-	-	Tilt	Tilt	Tilt	8000(Center)	Tilt								
P/T Absolute Position Control	#APC[Data1][Data2] #APC aPC[Data1][Data2]	FFFFh [Data2] 0000h	CW Limit [Data2]Tilt Position UP Limit	1C71(UP Limit) -8E38(DOWN Limit)	5555(UP Limit) -8E38(DOWN Limit)	1C71(UP Limit) -8E38(DOWN Limit)		1C71(UP Limit) -8E38(DOWN Limit)	1C71(UP Limit) -8E38(DOWN Limit)	5555(UP Limit) -8E38(DOWN Limit)	5555(UP Limit) -8E38(DOWN Limit)	5555(UP Limit) -8E38(DOWN Limit)	1C71(UP Limit) -8E38(DOWN Limit)	1C71(UP Limit) -8E38(DOWN Limit)	5555(UP Limit) -8E38(DOWN Limit)	5555(UP Limit) -8E38(DOWN Limit
		-	-													
		8000h -	Genter -													
		FFFFh	DOWN Limit													
		[Data1] 0000h -	[Data1]Pan Position CCW Limit -	0		0		0	0	0	0	0	0			
		8000h	Genter -													
		FFFFh	CW Limit													
		[Data2] 0000h	[Data2]Tilt Position UP Limit													
P/T Absolute	#APS[Data1][Data2][Data3]	8000h	Center													
Position Control with Speed	[Data4] aPS[Data1][Data2][Data3][	- FFFFh	DOWN Limit													
Conta or with opecu	Data4]	[Data3] 00h	[Data3]Preset Speed 1													
		- 1Dh	30													
		[Data4]	[Data4]Preset Speed Table													
		0	Slow Mid													
		2	Fast													
Focus Position Control	#AXF[Data] #AXF axf[Data]	555h - FFFh	Near - - Far	0	0	0	supports only 555	0	0	0	0	0	0	0	0	0
Iris Control	#AXI[Data] axi[Data]	555h	Iris Close	0	0	0	supports only 555	0	0	0	0	0	0	0	0	0
	#AXZ[Data]	FFFh 555h	Iris Open Wide	0	0	0	supports only	0	0	0	0	0	0	0	0	0
Zoom Position Control	#AXZ #AXZ axz[Data]	- FFFh	– Tele				555									
	uefe . 1	00	Preset001	0	0	0	0	0	0	0	0	0	0	0	0	0
Delete Preset Memory	#C[Data] s[Data]	99	Preset100													
Focus Mode	#D1[Data] #D1 d1[Data]	0 1	Manual Auto	0	0	0		0	0	0	0	0	0	0	0	0
	#D3[Data]	0	Manual	0	0	0		0	0	0	0	0	0	0	0	0
Iris Mode	#D3 d3[Data]	1	Auto													
Day/Night	#D6[Data] #D6 d6[Data]	0 1	Day Night	O (UE80) (UE50, UE40)		0		0	0	0	0	0	0		0	0
Defroster Control	#D7[Data] d7[Data]	0	Off On						0 : Auto 1 : On							
Wiper Control	#D8[Data] d8[Data]	0	Off On				i		0 : Off 1 : Fast							
Heater/Fan Control	#D9[Data] d9[Data]	0	Off On						(Heater) 0 : Auto							
R-Tally Control	#DA[Data] #DA	0	Off On	0	0	0	0	0	1 : On O	0	0	0	0	0	0	0
-	dA[Data]	0	Off						0							
Defroster Status	#DS dS[Data]	1	0n				1		_							
		01	Near Max. Speed	0	0	0		0	0	0	U	0	0	0	0	
Focus Speed Control	#F[Data]	49 50	Near Min. Speed Stop													
rocus opeed Control	fS[Data]	51 -	Far Min. Speed													
		99	Far Max. Speed													
	#FAN[Data]	0	Auto High	O (UE80) (UE50, UE40)		0		0	Supports only 0(Auto)							
Fan	#FAN fAN[Data]	2	Mid	(UE30, UE40)			1		1(On)				1	1		
		3	Low						l				1	1		

	Command															
ITEM	Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Fan2	#FA2[Data] #FA2 fA2[Data]	0 1 2 3	Auto High Mid Low				_	0								
Flip Detect Angle	#FDA[Data] #FDA fDA[Data]	3Ch - 78h	60deg - 120deg			0		0	0				0	0		
Fan Status1	#FS1 fS1[Data]	0 1 2	Off On Error	O (UE80) (UE50, UE40)		0		0	Supports only 0(Off), 1(On)							
Fan Status2	#FS2 fS2[Data]	0 1 2 555h	0ff 0n Error Near	0	0	0		0	Supports only 0(Off), 1(On)	0		0	 0	0	0	0
Request Focus Position	#GF gf[Data]	_ FFFh ""	Far @Power Off					O		O						
Request Iris Position	#GI gi[Data1][Data2]	[Data1] 555h - FFFh ""	[Data1] Close - Open @Power Off [Data2]	0	0	0		0	0	0	0	0	0	0	0	0
		0 1 555h	Manual Iris Auto Iris Wide	0	0	0		0	0	0	0	0	0	0	0	0
Request Zoom Position	#GZ gz[Data]	FFFh ""	Tele @Power Off													
Heater Status	#HS hS[Data]	0	Off On						0							
	#I[Data]	01	Iris Close	0	0	0		0	0	0	0	0	0	0	0	0
Iris Control	#I iC[Data]	99	Iris Open													
Install Positon	#INS[Data] #INS iNS[Data]	0 1	Desktop Hanging	0	0	0	0	0	0	0	0	0	0	0		0
Limitation Control (toggle)	#L[Data] I[Data]	Controller → P/T 1 2 3 4 P/T →	Tilt Up Tilt Down Pan Left Pan Right Release	0		0		0	0	0	0	0	0	0	0	0
		Controller 0 [Data1]	Set [Data1]	0	0	0		0	0	0	0	0	0	0	0	0
Limitation Control	#LC[Data1][Data2] #LC[Data1] IC[Data1][Data2]	[Data2] 0	Tilt Up Tilt Down Pan Left Pan Right [ <u>Data2]</u> Release Set													
Status Lamp	#LMP[Data] #LMP IMP[Data]	0	Disable Enable	0	0	0		0					0			
Lens Position Information Control	#LPC[Data] #LPC IPC[Data]	0 1	Off On	0	0	0	0	0	0	0		0	0	0		0
Lens Position Information	#LPI  PI[Data1][Data2][Data3]	[Data1] 555h  FFFh [Data2] 555h  FFFh [Data3] 5555h  FFFFh	[Data1]Zoom Position Wide  Tele  [Data2]Focus Position Near  Far  [Data3]Iris Position Close  Open	0	0	0		0	0	0	io	0	0	0	0	0
Save Preset Memory	#M[Data] s[Data]	00 - 99	Preset001 - Preset100	0	0	0	0	0	0	0	0	0	0	0	0	0

	Command															
ITEM	Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Power On / Standby	#O p[Data]	0 1 3	Power Off Power On Starting(※)		0		0	0	0	0	0	0	0	0		0
		01	Left Max. Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
Pan Speed Control	#P[Data] pS[Data]	50 -	Stop -													
		99	Right Max. Speed													
		[Data1] 00h 01h 02h	[Data1] Preset 001~040 Preset 041~080 Preset 081~100	0	0	0	0	0	0	0	0	0	0	0	0	0
		[Data2] 0000000000h	[Data2]													
Preset Entry Confirmation	#PE[Data1] pE[Data1]	- FFFFFFFFFh (bit0) 0 1 (bit1) 0	Preset No.(Data1*40 + 1) No Entry Entry Preset No.(Data1*40 + 2) No Entry Entry													
		(39bit) 0 1	Preset No.(Data1*40 + 40) No Entry Entry													
Freeze During Preset	#PRF[Data] #PRF pRF[Data]	0 1	Off On	0		0		0	0	0	0	0	0			
Preset Speed Table	#PST[Data] #PST pST[Data]	0 1 2	Slow Mid Fast	supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)		supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)	supports only 0(Slow) 2(Fast)			
		[Data1] 0000h	[Data1] (Pan) 0000h	Ö		Ō		Ö								
		FFFFh [Data2] 0000h	FFFFh [Data2] (Tilt) 0000h													
Get	#PTD	FFFFh [Data3] 000h	FFFFh [Data3] (Zoom) 0													
Pan/Tilt/Zoom/F ocus/Iris	pTD[Data1][Data2][D ata3][Data4][Data5]	3E7h [Data4] 00h	999 [Data4] (Focus) 0													
		63h [Data5] 00h	99 [Data5] (Iris) F0.0													
		FEh FFh	F25.4 CLOSE													

	Command															
ITEM	Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		[Data1] 08h	[Data1] (Gain) 0dB	0		0		0								
		11h	9dB													
		1Ah	- 18dB													
		- 32h	- 42dB													
		80h [Data2] 00000h	AGC On [Data2] 0K													
		3A98h [Data3]	15000K [Data3] (Shutter Mode)													
Get	#PTG pTG[Data1][Data2][D	0h 1h	Off Step													
Gain/ColorTemp/ Shutter/ND	ata3][Data4][Data5] [Data6]	2h 3h	Syncro ELC													
	[Data0]	[Data4] 0001h -	[Data4] (Shutter Step) 1/1 -													
		2710 h [Data5] 00000h	1/10000 [Data5] (Shutter Synchro) 0.0 [Hz]													
		186A0h [Data6]	10000.0[Hz] [Data6] (ND)													
		0	Throgh 1/4 ND													
		2	1/16 ND 1/64 ND													
		[Data1] 01 -	[Data1] Left Max. Speed —	0	0	0	0	0	0	0	0	0	0	0	0	0
		50 -	Stop _													
P/T Speed Control	#PTS[Data1][Data2] pTS[Data1][Data2]	99 [Data2]	Right Max. Speed [Data2]													
		01	Down Max. Speed -													
		50 - 99	Stop - UP Max. Speed													
		[Data1]	[Data1] (Pan)	0		0		0								
		0000h - 8000h	ccwLimit  Center													
		FFFFh	- cwLimit													
		[Data2] 0000h -	[Data2] (Tilt) UpLimit -													
Get	#PTV	8000h - FFFFh	Center - DownLimit													
Pan/Tilt/Zoom/F	pTV[Data1] [Data2] [D ata3] [Data4] [Data5]	[Data3] 555h	[Data3] (Zoom) Wide													
		FFFh [Data4] 555h	Tele [Data4] (Focus) Near													
		- FFFh	– Far													
		[Data5] 555h -	[Data5] (Iris) Close -													
		FFFh	Open													
Preset completion notification	q[Data]	00 - 99	Preset001 = Preset100	0	0	0	0	0	0	0	0	0	0	0	0	0
	#QSV[Data1] qSV[Data1]V[Data2].[Data3] ][Data4][Data5][data6]	*	<u>#reset100</u> <u>**</u>	*		*		*	*	*	*	*	*	*	*	*
	#R[Data] s[Data]	00 - 99	Preset001	0	0	0	0	0	0	0	0	0	0	0	0	0
Latest Error	#RER	99 ※	Preset100 ※	*		*		*	*	*	*	*	*	*	*	*
Information	rER[Data] #RID[Data]	0	CAM1	(UE80)	0		0			0	0	0				
IR ID / Wireless ID	#RID rID[Data]	1 2 3	CAM2 CAM3 CAM4	O (UE50, UE40)												

	Command															
ITEM	Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
		[Data1] 0000h -	[Data1]Pan Position CCW Limit –	0		0		0	0	0	0	0	0			
		8000h	Center													
D/T Polotivo Positio	n #RPC[Data1][Data2]	FFFFh	CW Limit													
Control	rPC[Data1][Data2]	[Data2] 0000h	[Data2]Tilt Position UP Limit													
		8000h	Center													
		FFFFh	DOWN Limit													
		[Data1] 0000h	[Data1]Pan Position CCW Limit	0		0		0	0	0	0	0	0			
		8000h	Center													
		FFFFh	CW Limit													
		[Data2] 0000h	[Data2]Tilt Position UP Limit													
		8000h	- Center													
P/T Relative Position	#RPS[Data1][Data2][Data3] n [Data4]	- FFFFh	DOWN Limit													
Control with Speed	rPS[Data1][Data2][Data3][ Data4]	[Data3] 00h	[Data3]Preset Speed 1													
		- 1Dh	30													
		[Data4]	[Data4]Preset Speed Table													
		0	Slow Mid													
		2	Fast													
	#RZL[Data]	0	640×360	0		0		0		supports only 0(640x360)	supports only 0(640x360)	supports only 0(640x360)				
Resolution Control	#RZL[Data] #RZL rZL[Data]	1 2 3	320×180 1280×720 1920×1080							0(640×360) 1(320×180)	0(640x360) 1(320x180)	0(640×360) 1(320×180)				
Request Latest	#S	00	Preset 1	0	0	0	0	0	0	0	0	0	0	0	0	0
Recall Preset No.	s[Data]	99	Preset 100													
Smart Picture Flip	#SPF[Data] #SPF sPF[Data]	0 1	Off Auto			0		0	0				0	0		
Speed With Zoom Position	#SWZ[Data] #SWZ sWZ[Data]	0 1	Off On	0	0	0	===	0	0	0	0	0	0	0	0	0
		01	Down Max. Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
Tilt Speed Control	#T[Data] tS[Data]	50	Stop													
	to[Data]	99	UP Max. Speed													

	Command															
ITEM	Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Tally Infomation	#TAA tAA[Data1][Data2][Data3][ Data4][Data6][Data6][Data7 ][Data8][Data9]	[Data1] 0 1 [Data2] 0 1 [Data3] 0 1 [Data4] 0 1 [Data5] 0 1 [Data6] 0 1 [Data7] 0 1 [Data8] 0 1 [Data9] 0 1	[Data1] Red Tally Off Red Tally On [Data2] Wired Red Tally In Off Wired Red Tally In On [Data3] Command Red Tally In On [Data4] Green Tally On [Data6] Green Tally Off Green Tally Off Green Tally On [Data6] Wired Green Tally In Off Ommand Green Tally In Off Command Green Tally In On [Data6] Command Green Tally In On [Data6] (Reserved) Tally On [Data7] (Reserved) Tally On [Data8] Wired (Reserved) Tally In On [Data8] Wired (Reserved) Tally In On [Data9] Command (Reserved) Tally In On Command (Reserved) Tally In On Command (Reserved) Tally In On Command (Reserved) Tally In On Command (Reserved) Tally In On	[Data5].[Data7].[Dat a8].[Data9]:unused	[Data9],[Data6],[Data6],[Data6],[Data6],[Data6],[Data9],unus ed	[Data5],[Data7],[Dat a8],[Data9],unused	[Data9],[Data9],[Data5],[Data6],[Data6],[Data6],[Data6],[Data9],unus ed	[Oata9],(Data7],(Data 8],(Data9]:unused								
Tally Enable	#TAE[Data] #TAE tAE[Data]	0 1	Disable Enable	0	0	0	0	0		0	0	0	0	0	0	0
Preset Speed	#UPVS[Data] #UPVS uPVS[Data]	[Preset Speed Unit: 0 (SpeedTable)] (SpeedTable)] (275h 275h 275h 400h 425h 450h 425h 450h 525h 525h 525h 525h 525h 525h 525h 5	[Preset Speed Unit : 0 (SpeedTable)]  1 2 3 4 5 6 7 8 9 9 10 111 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 26 27 28 29 30 [Preset Speed Unit : 1 (Time)]	O	O Preset Speed Unit is fixed to 0(Speed Table)	0		0	0	O	0	0	0	O	0	0
Washer	#WAS[Data] #WAS wAS[Data]	0 1	Off On						0							
Wiper	#WIP[Data] #WIP wIP[Data]	0 1 2	Off Fast Slow						0							
Wireless Control	#WLC[Data1] #WLC wLC[Data1]	0	Disable Enable	0	0	0	0	0		0	0	0	0		0	0
Washer P/T Position Reset Washer P/T	#WPR wPR #WPT wPT								0							
Position	wPT		l							l				1		

	Command															
ITEM	Control Confirmation Response	Data	Data Contents	UE80/UE50/UE40	UE20/HE20	UE100	UE4	UE150/HE145	HR140	UE70series	HE42series	HE40series	HE130	HE120	HE60	HE50
Zoom Speed Control	#Z[Data] zS[Data]	01 - 49 50 51 - 99	Wide Max. Speed Wide Min. Speed Stop Tele Min. Speed  Tele Max. Speed	0	0	0	0	0	0	0	0	0	0	0	0	0

# ★Details

▼osh

Parameters vary depending on model and System Format

	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)		
	J(1/2JU) _		
	C(ELC)		
	E(1/25)		

# ▼OSA:87

UE80, UE100, UE150	UE50	UE40	HE145	UE20	HE20	UF4
[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]
01h (720/59, 94p)	01h (720/59. 94p)	01h (720/59. 94p)	01h (720/59, 94p)	1h (720/59, 94p)	1h (720/59, 94p)	1h (720/59, 94p)
04h (1080/59. 94i)	04h (1080/59. 94i)	04h (1080/59. 94i)	04h (1080/59. 94i)	4h (1080/59. 94i)	4h (1080/59. 94i)	10h (1080/59. 94p)
07h (1080/29, 97psF)	07h (1080/29, 97psF)	10h (1080/59, 94p)	07h (1080/29. 97psF)	10h (1080/59, 94p)	10h (1080/59, 94p)	14h (1080/29. 97p)
10h (1080/59, 94p)	10h (1080/59. 94p)	14h (1080/29, 97p)	10h (1080/59, 94p)	14h (1080/29, 97p)	14h (1080/29. 97p)	17h (2160/29. 97p)
14h (1080/29. 97p)	14h (1080/29. 97p)	17h (2160/29. 97p)	14h (1080/29. 97p)	17h (2160/29. 97p)	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
	16h (1080/23.98p (over	, , ,	16h (1080/23.98p (over	, , , , , ,	[50Hz]	[50Hz]
59.94i/p))	59.94i/p))	[50Hz]	59.94i/p))	[50Hz]	2h (720/50p)	2h (720/50p)
17h (2160/29, 97p)	17h (2160/29, 97p)	02h (720/50p)	,	2h (720/50p)	5h (1080/50 i)	11h (1808/50p)
19h (2160/59, 94p)		05h (1080/50i)	[50Hz]	5h (1080/50i)	11h (1808/50p)	15h (1080/25p)
	[50Hz]	11h (1080/50p)	02h (720/50p)	11h (1808/50p)	15h (1080/25p)	18h (2160/25p)
[50Hz]	02h (720/50p)	15h (1080/25p)	05h (1080/50i)	15h (1080/25p)		
02h (720/50p)	05h (1080/50i)	18h (2160/25p)	08h (1080/25psF)	18h (2160/25p)	[60Hz]	[60Hz]
05h (1080/50i)	08h (1080/25psF)		11h (1080/50p)		0h (720/60p)	0h (720/60p)
08h (1080/25psF)	11h (1080/50p)	[24Hz]	15h (1080/25p)	[60Hz]	3h (1080/60 i )	20h (1080/60p)
11h (1080/50p)	15h (1080/25p)	21h (2160/24p)		0h (720/60p)	20h (1080/60p)	24h (2160/30p)
15h (1080/25p)	18h (2160/25p)	22h (1080/24p)	[24Hz]	3h (1080/60 i)	25h (1080/30p)	25h (1080/30p)
18h (2160/25p)			22h (1080/24p)	20h (1080/60p)		
1Ah (2160/50p)	[24Hz]	[23. 98Hz]	500 0011 7	24h (2160/30p)		
FO.411. 3	041 (0400 (04.)	1Bh (2160/23, 98p)	[23. 98Hz]	25h (1080/30p)		
[24Hz]	21h (2160/24p)	23h (1080/23. 98p)	0Ah (1080/23, 98psF)			
011 (0100 (04.)	22h (1080/24p)		23h (1080/23. 98p)			
21h (2160/24p)	[00 00II-]					
22h (1080/24p)	[23. 98Hz]					
[23. 98Hz]	0Ah(1080/23.98psF) 1Bh(2160/23.98p)					
0Ah (1080/23, 98psF)	23h (1080/23, 98p)					
1Bh (2160/23, 98p)	2311(1060/23, 96p)					
23h (1080/23, 98p)						
2011 (1000/ 20. 00p)						

# ▼OSA:87 (Continued)

HR140	UB300	UE70series	HE40Series	HE120	HE60	HE50
[59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/29. 97psF) Ah (1080/23. 98psF) 10h (1080/59. 95p) 14h (1080/23. 98p)  [50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 11h (1080/50p) 15h (1080/25p)	UB300 [59. 94Hz] 00h (720/60p) 01h (720/59. 94p) 04h (1080/59. 94i) 07h (1080/23. 98psF) 10h (1080/23. 98psF) 10h (1080/23. 98p) 17h (2160/29. 97p) 19h (2160/59. 94p) 16h (1080/23. 98p) 17h (2160/23. 98p) 17h (2160/23. 98p) 16h (2160/23. 98psF) 1Fh (2160/23. 98psF) 1Fh (2160/29. 97psF) 1Eh (2160/60p) 20h (1080/60p) 20h (1080/60p) 02h (1080/59. 94i CROP) 01h (1080/59. 94p CROP) 05h (1080/50i) 08h (1080/50i) 08h (1080/25psF) 11h (1080/50p) 18h (2160/25p) 1Ah (2160/25psF) 45h (1080/50i CROP) 51h (1080/50p CROP)	UE70series [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)  [50Hz] 2h (720/50p) 5h (1080/50i) 8h (1080/25psF) 11h (1080/25p) 18h (2160/25p) 80h (Auto)  HE42series [59. 94Hz] 1h (720/59. 94p) 4h (1080/59. 94i) 7h (1080/59. 94p) 14h (1080/59. 94p) 14h (1080/29. 97psF) 10h (1080/59. 94p) 14h (1080/29. 97psF) 10h (1080/50) 5h (1080/50i) 8h (1080/50i) 8h (1080/25psF) 11h (1080/50p) 15h (1080/50p) 15h (1080/25p) 80h (Auto)	HE40Series  === HDMI Model ===         [59. 94Hz]         1h (720/59. 94p)         4h (1080/59. 94i)         7h (1080/29. 97psF)         10h (1080/29. 97p)         80h (Auto)          [50Hz]         2h (720/50p)         5h (1080/50i)         8h (1080/25psF)         11h (1080/50p)         15h (1080/25p)         80h (Auto)  === SDI Model ===         [59. 94Hz]         1h (720/59. 94p)         4h (1080/29. 97psF)         14h (1080/29. 97psF)         14h (1080/29. 97p)          [50Hz]         2h (720/50p)         5h (1080/25psF)         15h (1080/50i)         8h (1080/25psF)         15h (1080/25p)	HE120  [59. 94Hz]  1h (720/59. 94p)  4h (1080/59. 94i)  Bh (480/59. 94i)  10h (1080/59. 94p)  12h (480/59. 94p)  [50Hz]  2h (720/50p)  5h (1080/50i)  Dh (576/50i)  11h (1808/50p)  13h (576/50p)  4h (1080/29. 97psF)  Ah (1080/29. 97psF)  Ah (1080/29. 97psF)  10h (1080/29. 97psF)  10h (1080/29. 97p)  12h (480/59. 94p)  14h (1080/29. 97p)  16h (1080/29. 97p)  150Hz]  2h (720/50p)  5h (1080/50p)  13h (576/50p)  15h (1080/25p)	HE60  [H Model/59. 94Hz]     1h (720/59. 94p)     4h (1080/59. 94i)     Bh (480/59. 94i)     10h (1080/59. 94p)     12h (480/59. 94p)  [H Model/50Hz]     2h (720/50p)     5h (1080/50i)     Dh (576/50i)     11h (1808/50p)     8h (1080/25psf)     13h (576/50p)  [S Model/59. 94Hz]     1h (720/59. 94p)     4h (1080/59. 94i)     Bh (480/59. 94i)  [S Model/50Hz]     2h (720/50p)     5h (1080/50i)     Dh (576/50i)	HE50

# ▼OSD:B1

Parameters vary depending on model

	HR140, HE130	UE70series	s, 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

	UB	300	
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

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

# ▼osc

Parameter meaning var between control command and response for confirmation command

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

# **▼**#QSV

UE80	UE50	UE40	UE100	UE150, HE145	HR140	UE70, HE42, HE40series
[Data1]	[Data1]	[Data1]	[Data1]	[Data1]	[Data1]	[Data1]
Servo CPU	Servo CPU	Servo CPU	Servo CPU	Servo CPU	Servo CPU	Servo CPU
Camera CPU	Camera CPU	Camera CPU	Camera CPU	Camera CPU	CameraMain CPU	Cam CPU
ZYNQ Network	reserve	reserve	ZYNQ Network	COM FPGA	COM FPGA	FPGA
Main/Network CPU	Main/Network CPU	Main/Network CPU	Main/Network CPU	Main/Network CPU	Network CPU	BE CPU
ZYNQ Logic	AVIO FPGA	reserve	ZYNQ Logic	AVIO FPGA	AVIO FPGA	reserve
reserve	reserve	reserve	ZYNQ R5T	Interface CPU	Interface CPU	Interface CPU
Lens CPU	Lens CPU	Lens CPU	Lens CPU	Lens CPU	Lens FPGA	reserve
reserve	reserve	reserve	ZYNQ R5R	Interface EEPROM	Interface EEPROM	Interface EEPROM
ZYNQ Enc	reserve	reserve	ZYNQ Enc	reserved	reserve	reserve
BE EEPROM	BE EEPROM	BE EEPROM	BE EEPROM	BE EEPROM	reserve	reserve
[Data2]	[Data2]	[Data2]	[Data2]	[Data2]	[Data2]	[Data2]
MAJOR VERSION	MAJOR VERSION	MAJOR VERSION	Major Version	Major Version	Major Version	00
[Data3]	[Data3]	[Data3]	[Data3]	[Data3]	[Data3]	[Data3]
MINOR VERSION	MINOR VERSION	MINOR VERSION	Minor Version	Minor Version	Minor Version	Version
[Data4]	[Data4]	[Data4]	[Data4]	[Data4]	[Data4]	[Data4]
(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)	L
(Release Build)	(Release Build)	(Release Build)	(Release Build)	(Release Build)	(Release Build)	
[Data5]	[Data5]	[Data5]	[Data5]	[Data5]	[Data5]	[Data5]
(REVISION)	(REVISION)	(REVISION)	(REVISION)	(REVISION)	(REVISION)	00
[data6]	[data6]	[data6]	[data6]	[data6]	[data6]	[data6]
NTSC	NTSC	NTSC	NTSC	NTSC	NTSC	NTSC
PAL	PAL	PAL	PAL	PAL	PAL	PAL

# **▼**#QSV(Continued)

rameters vary dependin	g on model		
HE130	HE120	HE60	HE50
[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 [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 [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

UE80, UE50, E40	UE100	UE150, HE145	HR140
00h No Error	03h Motor Driver Error	00h Normal	00h : Normal
03h Motor Driver Error	21h System Error	03h Motor Driver Error	03h: Motor Driver Error
21h System Error	22h Spec Limit Over	04h Pan Sensor Error	04h:Pan Sensor Error
22h Spec Limit Over	24h NET Life-monitoring Error	05h Tilt Sensor Error	05h:Tilt Sensor Error
24h NET Life-monitoring Error	29h CAM Life-monitoring Error	06h Controller RX Over run Error	06h:Controller RX Over run Error
25h BE Life-monitoring Error	31h Fan1 error	07h Controller RX Framing Error	07h:Controller RX Framing Error
29h CAM Life-monitoring Error	33h High Temp	08h Network RX Over run Error	08h:Network RX Over run Error
31h Fan1 error(UE80)	36h Low Temp	09h Network RX Framing Error	09h:Network RX Framing Error
33h High Temp	40h Temp Sensor Error	17h Controller RX Command Buffer Overflow	17h : Controller RX Command Buffer
36h Low Temp	41h Lens Initialize Error	19h Network RX Command Buffer Overflow	Overflow
40h Temp Sensor Error	42h PT. Initialize Error	21h System Error	19h:Network RX Command Buffer Overflow
41h Lens Initialize Error	43h PoE++ Software auth. Timeout	22h Spec Limit Over	21h:System Error
42h PT. Initialize Error	50h MR Level Error	23h FPGA Config Error	22h:Spec Limit Over
43h PoE++ Software auth. Timeout (UE80)	52h MR Offset Error	24h NET Life-monitoring Error	23h: FPGA Config Error
45h PoE+ Software auth. Timeout	57h Gyro Error	25h BE Life-monitoring Error	25h:CAMERA communication Error
(UE50/UE40)	58h PT. Initialize Error	26h IF/BE UART Buffer Overflow	26h:CAMERA RX Over run Error
47h USB Streaming Error (UE50/UE40)		27h IF/BE UART Framing Error	27h: CAMERA RX Framing Error
50h MR Level Error		28h IF/BE UART Buffer Overflow	28h: CAMERA RX Command Buffer Overflow
52h MR Offset Error		29h CAM Life-monitoring Error	31h:Fan1 Error
57h Gyro Error			32h:Fan2 Error
58h PT. Initialize Error		32h Fan2 error	33h:High Temp
		33h High Temp	36h:Low Temp
		36h Low Temp	39h:Wiper Error
		40h Temp Sensor 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
		54h:Angle MR Sensor Error	53h: Origin Offset Error
		55h:PT. Gear Error	
		56h:Motor Disconnect Error	

# **▼**#RER(Continued)

The content of the error varies depending on the model

00h Normal(No Error) 03h Motor Driver Error 04h Pan Sensor Error 05h Tilt Sensor Error 05h IF/FPGA UART Over run Error 08h IF/NET UART Framing Error 17h IF/FPGA UART Buffer Overflow 19h IF/NET UART Buffer Overflow 21h System Error(25h IF/BE UART Buffer Overflow 27h IF/BE UART Buffer Overflow 28h IF/NET UART Buffer Overflow 21h Network RX Command Buffer Overflow 27h IF/BE UART Buffer Overflow 27h IF/BE UART Buffer Overflow 27h IF/BE UART Buffer Overflow 27h IF/BE UART Buffer Overflow 28h IF/BE UART Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Command Buffer Overflow 29h: Network RX Command Buffer Overflow 29h CAM Life-monitoring Error 07h: Controller RX Framing Error 07h: Controller		120					HE50	
04h Pan Sensor Error 05h Tilt Sensor Error 06h IF/FPGA UART Over run Error 07h IF/FPGA UART Framing Error 08h IF/NET UART Framing Error 09h IF/NET UART Buffer Overflow 19h IF/NET UART Buffer Overflow 21h System Error(IF/SERVO Error) 22h PT Limit Over 24h NET Life-monitoring Error 25h IBE Life-monitoring Error 26h IF/BE UART Buffer Overflow 27h IF/BE UART Buffer Overflow 29h CAM Life-monitoring Error 08h: Network RX Command Buffer Overflow 29h CAM Life-monitoring Error 09h: Network RX Command Buffer Overflow 29h CAM Life-monitoring Error 09h: Network RX Command Buffer Overflow 29h CAM Life-monitoring Error 09h: Network RX Command Buffer Overflow 29h CAM Life-monitoring Error 09h: Network RX Command Buffer Overflow 29h CAM Life-monitoring Error 09h: Network RX Command Buffer Overflow 21h: System Error 22h: Spec Limit Over 22h: Spec Limit Over 22h: Network communication Error 25h: Lens Initialize Error 09h: Network RX Command Buffer Overflow 25h: Lens Initialize Error 09h: Network RX Command Buffer Overflow 25h: Lens Initialize Error 09h: Network RX Command Buffer Overflow 21h: System Error 22h: Spec Limit Over 22h: Spec Limit Over 23h: FPGA Config Error 24h: Network communication Error 25h: Lens Initialize Error 09h: Network RX Command Buffer Overflow 25h: Lens Initialize Error 00h: Controller RX Command Buffer Overflow 21h: System Error 24h: Network RX Command Buffer Overflow 25h: FIGH Overflow 21h: System Error 25h: Lens Initialize Error 00h: Controller RX Framing Error 00h: Controller RX Framing Error 00h: Normal 00h: Network RX Over run Error 00h: Controller RX Framing Error 00h: Controller RX Framing Error 00h: Normal 00h: Network RX Over run Error 00h: Controller RX Framing Error 00h: Controller RX Framing Error 00h: Controller RX Framing Error 00h: Controller RX Framing Error 00h: Controller RX Framing Error 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Normal 00h: Norm	nal	lormal					00h : Normal	
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08h:IF/NET UART Over run Error 09h:IF/NET UART Buffer Overflow 19h:IF/PGA UART Buffer Overflow 21h System Error(IF/SERVO Error) 22h PT Limit Over 24h NET Life-monitoring Error 25h BE Life-monitoring Error 26h:IF/BE UART Buffer Overflow 27h:IF/BE UART Buffer Overflow 27h:Spec Limit Over 28h:Spec Limit Over 28h:Spec Limit Over 29h:CAM Life-monitoring Error 28h:Spec Limit Over 29h:Network RX Command Buffer Overflow 21h:System Error 29h:PGA Config Error 29h:Network RX Command Buffer Overflow 21h:System Error 29h:PGA Config Error 29h:Network RX Command Buffer Overflow 21h:System Error 29h:Network RX Command Buffer Overflow 21h:Spstem Error 29h:Network RX Command Buffer Overflow 21h:Spstem Error 29h:Network RX Command Buffer Overflow 21h:Spstem Error 29h:Network RX Over run Error 09h:Notmal Over 29h:Network RX Over run Error 09h:Notmal Ov	ver ru	X Over ru	run Error	or	06	h : Contro	oller RX Ove	er run Error
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19h: Network RX Command Buffer Overflow 19h: Network RX Command Buffer	าd Buff	ımand Buf	uffer Ove	erflow	19	h : Networ		nand Buffer
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22h: Spec Limit Over 21h: System Error							-	
23h: FPGA Config Error 22h: Spec Limit Over								
25h: CAMERA communication Error 23h: FPGA Config Error								
26h: CAMERA RX Over run Error 24h: Network communication Erro					24			
27h: CAMERA RX Framing Error 30h: Lvds_Adjustmet_NG	_		_					_
28h: CAMERA RX Command Buffer Overflow 31h: Bar_Signal_Check_NG	nd Buf	nmand Bu	Buffer Ove	verflow				
32h:H_Sync_Check_NG								
33h:HDMI_Check_NG								

# ▼XSF

Parameter meaning var between control command and response for confirmation command

UE80, UE50, UE40,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	

#### UE4

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

#### UE20/HE20

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

#### **▼**#0

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