HD/4K Integrated Camera Interface Specifications

Compatible model Table
Dec. 1, 2023

Panasonic Connect Co., Ltd.

Camera command

Camera co	mmand																		
ITEM	Command Control / Response /	Data	Data Contents Control and	1	1	1	1	1	1	1	ı	1	1	T		1			1
112.	Confirmation	Data	Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	CUP:[Data]	1	Up	0															
Menu Down Menu Right	CDW:[Data] CRT:[Data]	1 1	<u>Down</u> Right	0		 	 												
Menu Left	CLT:[Data]	1	Left	0															
	DCB: [Data]	0	Camera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Color Bar	QBR: [Data]	I	Color Bar																
	DCS: [Data]	0	0.0%													0	0		
Color Bar Setup	QCS	1	7. 5%																
	OCS:[Data]																		
	DDW 5D . 3	1h	1step	supports only	supports only	supports only	supports only	supports only	supports only	supports only	0	supports only	0	0	0	0	0	0	0
Menu Down	DDW:[Data]	Ah	10step	1h(1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)		1h(1step)							
		1	Enter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Menu Enter	DIT:[data]																		
		1h	1step	supports only	oupports only	supports only	oupports only	supports only	laupporta only	supports only		aupports only							
Menu Left	DLT:[Data]	1h A h	10step	1h (1step)	supports only 1h(1step)	1h (1step)	supports only 1h(1step)	1h (1step)	supports only 1h(1step)	1h(1step)		supports only 1h(1step)							
				1															
Manu Canaal	DDC : [Da+a]	1	Cance I	O	O	0	O	O	O	O	O	O	O	O	O	O	O	O	O
Menu Cancel	DPG:[Data]																		
		1h	1step	supports only	supports only	supports only	supports only	supports only	supports only	supports only	0	supports only				0	0		
Menu Right	DRT:[Data]	Ah	10step	1h(1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)		1h(1step)							
		1h	1step	supports only	supports only	supports only	supports only	supports only	supports only	supports only	0	supports only							
Menu Up	DUP:[Data]	Ah	10step	1h(1step)	1h(1step)	1h (1step)	1h(1step)	1h(1step)	1h(1step)	1h(1step)		1h(1step)							
				1	1		1		1	1									
Menu On/Off	DUS:[Data] QUS	0 1	Off On	1 0	0	0	0	O	O	0	0	0	0	O	0	0	0	O	O
·	OUS:[Data]	<u> </u>																	
Focus (Far)	HFF		Move to far									0	0	0	0			0	0
Focus (Near) Focus (Stop)	nriv HFS		Move to near Stop focus									0	0	0	0			0	0
Zoom(Tele)	HZT		Move to tele									Ō	Ō	Ō	Ō			Ō	Ō
Zoom (Stop)	HZS		Stop zoom				<u> </u>					0	0	0	0			0	0
Zoom(Wide)	HZW	0	Move to wide Slow									lŏ	ŏ	ŏ	ŏ			ŏ	ŏ
Focus Speed	LFS:[Data]	-	-																
roduo opocu	Li o · [baca]	9	Fast																
		0	Slow									0	0	0	0			0	0
Zoom Speed	LZS:[Data]	-	-																
Zoom opood	LLO · [Butu]	9	Fast																
- W I	OAF:[Data]	0	Manua I	0	0	0	0	0		0	0		0	0	0	0	0	0	0
rocus mode	QAF	1	Auto	ļ															
NDO/ NDD OLI	OAS		ABC/ABB Start	0	0		0	0		0	0	0	0	0	0	0	0		
White Balance Mode	OAW: [Data]	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*
Focus Adjust With	QAW OAZ:[Data]	0	Off	0	0	0	0	0		0	0		0	0	0	0	0	0	0
PTZ	QAZ	1	0n																
		00h _	-150								supports only OA(-100)					supports only OA(-100)	0		
	OBD:[Data]	_ 1Eh	0								OA (-100) -					- (-100)			
B Pedestal	QBD	-	-								32 (+100)					32 (+100)			
		3Ch	+150																
		000h	-150								0		0	0	0	0	0	0	0
		-	_																
		096h _	0 _																
		12Ch	+150																
	001.50		11570 : 11575 : 11570 :	. [
B Gain	OBI:[Data] OBI		<u>UE70series, HE75series, HE70seri</u> <u>es, HE60, HE50</u>	-															
	45.	000h	-30																
		_ 	_																
		096h -	- -																
		12Ch	30																
		OOL-	20	 								<u> </u>					10		
		00h -	-30 -	I												ľ		ľ	
		1Eh	0																
		_ 3Ch	+30																
	OBG:[Data]	००॥																	
B Gain	OBG:[Data] QGB		HR140, HE130, HE120																
	OGB:[Data]	00h _	-150																
		_ 1Eh	0																
		-																	
		3Ch	150																
		000h	-150				supports only	supports only		supports only	supports only					supports only	0		
	OBP:[Data]	-	-				supports only -100∼+100	supports only -100∼+100		−100 ~ +100	supports only -100∼+100					-100 ~ +100			
B Pedestal	QBP	096h -	0 -																
		12Ch	+150																
		00h	-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)
	000: [Do+o]	03h	0			- ODb (10)			- ODb (10)				-	- 06b (2)	-		_	- 06h (2)	- 06b (2)
Chroma Level	OCG:[Data] QCG	– 06h	+3			0Dh (10)			0Dh (10)				06h (3)	06h (3)	06h (3)		06h (3)	06h (3)	06h (3)
		-	-																
		0Dh	10																
		^	044	1	-	+	+	+	1	1 1 1	<u> </u>	 		 	1	10	+		
	005.50 : 3	U	UTT							Un mean xI.4	10	10	Ю	10	10	10			
Digital Extender	ODE:[Data] QDE	1	Off On							On mean x1.4	0	O	0	O	0	0			

	Command		Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		0 1	Off Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	High																
		0	<u>UE160, UE100, UE150, HE145, HR140, UB300, HE130</u>																
Detail	ODT:[Data] QDT	1 2	Off On																
	ŲDΙ		0n																
		0 1	<u>UE20/HW20/UE4</u> 0																
		2 3	1 2																
		0	3 Normal	0	0		0	0	 	0		supports only					supports only		
	OFR	1 2	Fan Error Other Error									0(Normal) 1(Fan Error)					0(Normal) 1(Fan Error)		
Error Information	OER: [Data]																		
Flip Status	QFS OFS:[Data]	0 1	Normal Flip	0			0	0		0	0					0	0		
		0 1	Clear 1/4 ND	0h:	UE80 supports only		supports only Oh:	supports only Oh:		supports only Oh:	Oh: Clear	supports only Oh: Clear	supports only Oh: Clear	supports only Oh: Clear		supports only Oh: Clear	supports only Oh: Clear		
	OFT:[Data]	2 3	1/16 ND 1/64 ND	Clear (Through) 1h: 1/4 ND	Oh: Clear (Through)		Clear (Through) 1h: 1/4 ND	Clear(Through) 1h: 1/4 ND		1h: 1/4 ND	4h: 1/8 ND	1h: 1/4 ND 2h: 1/16 ND	1h: 1/4 ND 2h: 1/16 ND	1h: 1/4 ND 2h: 1/16 ND		3h: 1/64 ND 4h: 1/8 ND	1h: 1/4 ND 2h: 1/16 ND		
ND Filter	QFT	4 8	1/8 ND Auto ND		1h: 1/4 ND 2h: 1/16 ND		2h: 1/16 ND 3h: 1/64 ND	2h: 1/16 ND 3h: 1/64 ND		2h: 1/16 ND 3h: 1/64 ND		3h: 1/64 ND	3h: 1/64 ND 8h: Auto ND	3h: 1/64 ND 8h: Auto ND			3h: 1/64 ND		
					3h: 1/64 ND 8h: Auto ND		8h: Auto ND												
		01h	Low									0							
0-1- 0-1+	OGS:[Data]	04h 08h	Mid High																
Gain Select	QGS	06h 0Ch	S. Gain1 S. Gain2																
		0Eh	S. Gain3	oupports only	oupports only	supports only	cupports only	supports only	cupports only	supports only	supports only		supports only	supports only	cupports only	supports only	supports only	supports only	supports only
		04h _ 	-2dB -	supports only 04(-2dB)- 14(12dB),	08(0dB)-32(42dB),	08 (0dB) -32 (42dB),	supports only 08 (0dB) -32 (42dB), 80 (AGC On)	supports only 08(0dB)-32(42dB), 80(AGC On)	supports only 08(0dB)-32(42dB)	supports only 05 (-3dB) - 32 (42dB),	supports only 08 (0dB) -32 (42dB), 80 (AGC On)		supports only 08h:0dB-38h:48dB 80h:AGC On	supports only 08h:0dB-38h:48dB 80h:AGC On	supports only 08h:0dB-38h:48dB 80h:AGC On	supports only 08 (0dB) -2C (36dB) 80 (AGC On)	supports only 08(0dB)-1A(18dB), 80(AGC On)	supports only 08(0dB)-1A(18dB) 80(AGC On)	supports only 08 (0dB) -1A (18dB) 80 (AGC On)
		08h - 11b	0dB _ 9dB	80 (AGC On)	80 (AGC Off)	OU (AGC ON)	OU (AUG UII)	80 (AGC OII)		80 (AGC On)	OU (AUG UII)		Use only 3dB			OU (AGC UII)	ou (Add on)	OU (AGC UII)	OU (AGC UII)
Gain	OGU:[Data] QGU		-										step.	Use only 3dB step.	Use only 3dB step.				
		1Ah - 20h	18dB -																
		38h 80h	48dB AGC On																
Horizontal Phase	OHP:[Data]	000h	-206		O (UE80) (UE50, UE40)		0	0		0	0		0	0		0	0	0	0
	QHP	- 3FFh	+49 Returns model No. by ASCII		(0E30, 0E40)		0					0							
Model Number	OID: [Data]	0Eh (=14)	F1. 4	0	0	0		0		0	l	0		l	O		O		
		1Ch (=28)	F2. 8																
	QIF	- 38h (=56)	F5. 6																
Request Iris F No.	OIF:[Data]	A0h (=160)	- F16																
		FFh	- Close																
	+	0	Off	0	supports only		0	0		0	0		0	0	0	0			
		1	0n		0(0ff), 1(0IS (STABLE)), 2(0IS														
		HR140 0	<u>HR140</u> Off		(PAN/TILT)) (UE80)														
		1 2	OIS Dynamic I.S. System		O (UE50, UE40)														
		<u>UE100</u>	<u>UE100</u>																
018	OIS:[Data] OIS	0 1	Off OIS																
	410	2 3	Hybrid (STABLE) Hybrid (PAN/TILT)																
		<u>UE160, UE80</u>	<u>UE160, UE80, UR100</u>																
		0 1	Off OIS (STABLE)																
		2 3	OIS (PAN/TILT) HYBRID (STABLE)																
		4	HYBRID (PAN/TILT)													(55:::)		(56::)	
		001h -	See right								(59Hz) 001h (60. 15Hz)		(59. 94Hz) 001h (59. 94Hz)	(59. 94Hz) 001h (59. 94Hz)	(59. 94Hz) 001h (59. 94Hz)	(59Hz) 001h (60. 15Hz)	(59Hz) 001h (60. 17Hz)	(59Hz) 001h (60. 17Hz)	(N Model) 001h(60.17Hz)
	040.50 . 3	0FFh									– 0FFh (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. 15Hz)	001h (50. 19Hz)	001h (50. 16Hz)	001h (50. 16Hz)
		221	150								0FFh (535. 71Hz)		0FFh (570. 12Hz)	0FFh (570. 12Hz)	0FFh (570. 12Hz)	0FFh (535. 71Hz)	0FFh (537. 13Hz)	0FFh (542. 42Hz)	0FFh (542. 42Hz)
	000:50 : 3	00h - 15h	-150 -								supports only OA(-100)					supports only OA(-100)	O		
R Pedestal	ORD: [Data] QRD	1Eh -	0 -								- 32 (+100)					- 32 (+100)			
		3Ch	+150																

	Command	<u> </u>	Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		00h -	-30 -								0		0	0	0	0	0	0	0
		1Eh -	0 -																
	ORG:[Data]	3Ch	+30																
R Gain	QGR OGR: [Data]	00h	HR140, HE130, HE120 -150																
	oun.[bata]	- 1Eh	-																
		_	- 150																
		3Ch																	
		000h -	-150 -								0			0	O	O	O		5
		096h -	- -																
	001 50 1 3	12Ch	+150																
R Gain	ORI:[Data] QRI		<u>UE70series, HE75series, HE70seri</u> <u>es, HE60, HE50</u>																
		000h -	-30 -																
		096h -	0 -																
		12Ch	30																
		000h -	-150 -				supports only -100∼+100	supports only -100∼+100		supports only -100∼+100	supports only -100∼+100					supports only -100∼+100	0		
R Pedestal	ORP:[Data] QRP	096h -	0 -																
		12Ch	+150																
Iris Mode	ORS:[Data] QRS	1	Manua l Auto	0	U	0	0	O	supports only 1(Auto)	O	0	0	0	0	0	0	0	O	0
Iris Control	ORV:[Data]	000h -	Close	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	UKV	3FFh	0pen																
Linear Table	OSA:00:[Data] QSA:00	0 1	Table A Table B	O								O							
		50h –	-48 -	0			supports only 78h(-8)	supports only 78h(-8)		supports only 78h(-8)		0							
Master Black Gamm	ma OSA:07:[Data] OSA:07	80h _	0 -				- 88h (+8)	- 88h (+8)		- 88h (+8)									
		B0h	+48					-3(-0)											
		6Ch _	-20 -	0								0							
		71h _	-15 -																
R Black Gamma	OSA:08:[Data] QSA:08	80h _	0 -																
		8Fh _	+15																
		94h	+20																
		6Ch -	-20 -	0								0							
		71h -	-15 -																
B Black Gamma	OSA:09:[Data] QSA:09	80h -	0 -																
	uoni o	8Fh _	+15 -																
		9 4 h	+20																
Gamma SW	OSA:OA:[Data]	0	Off On	0								0							
damina Off	QSA:0A	0	Off	0								0							
Black Gamma SW	OSA:OB:[Data] QSA:OB	Ĭ	0n																
DRS SW	OSA:OD:[Data]	0	Off On	0								0							
	QSA:OD	00h	0							0		0							
Black Stretch Level(@FILM MENU FILM REC)	& OSA:OF:[Data] QSA:OF	- 1Eh	- 30																
FILM REC)	45.1.01	0	200%							0		supperts only							
Dunamia Lawa		1 2	300% 400%									0 (200%)							
Dynamic Level (@FILM MENU & FIL REC)	LM OSA:10:[Data] QSA:10	3	300% 400% 500% 600%									3 (500%)							
NEU)		·	000 /u																
F	0SA:11:[Data]	0	Off	0								0							
Flare SW	OSA:11: [Data] QSA:11	1	0n				<u> </u>				<u> </u>					<u> </u>			
		22h -	70. 00%	support only 4Ah(80.00%) - C2h(110.00%)			support only 22h(70.00%) -	support only 22h(70.00%) - B6h(107.00%)		support only 22h(70.00%) -	support only 22h(70.00%) - B6h(107.00%) (1step=0.5%)	support only 4Ah(80.00%) -				support only 22h (70.00%) - B6h (107.00%) (1step=0.5%)			
Master Knee Point	t OSA:20:[Data]	80h _ _	_	G2n (110. 00%)			22h (70.00%) - B6h (107.00%) (1step=0.5%)	B6h (107. 00%) (1step=0. 5%)		22h (70.00%) - B6h (107.00%) (1step=0.5%)	(1step=0.5%)	C2h (110. 00%)				(1step=0.5%)			
Master Knee Point (@VIDEO MENU)	QSA:20	B6h -	107. 00%																
		C2h	110.00% (1step=0.25%)																
	+	62h	30%							0		support only							
Master Knee Doint	t	– 80h	60%									support only 62 (30%) -							
Master Knee Point (@FILM MENU & VIDEO REC)	OSA:21:[Data] QSA:21	– 9Eh	90%									9E (90%)							
VIDEO REO)		AFh	107%																
		<u> </u>	/ /	I	<u> </u>	<u> </u>	1						1	I	<u> </u>		1		

	Command		Data Contents	T															
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		1Ch -	-25. 00% -	0								0							
R Knee Point	OSA:22:[Data] QSA:22	80h -	0.00%																
	WON - ZZ	E4h	+25.00% (1step=0.25%)																
		1Ch	-25. 00%	0								0							
D. K. D. L.	OSA:23:[Data]	_ 80h	0. 00%																
B Knee Point	QSA:23	E4h	+25.00%																
		00h	(1step=0.25%)				aunnort only	oupport only		ounnort only	oupport only					oupport only			
	204 24 50 . 3	00h _ 63h	- 99				00h (0) - 63h (99)	support only 00h(0) - 63h(99)		support only 00h(0) - 63h(99)	00h (0) - 63h (99)					support only 00h(0) - 63h(99)			
Master Knee Slope (@VIDEO MENU)	OSA:24:[Data] QSA:24	- C7h	- 199																
		7Ch -	150%							supports only 7Ch(150%) -		0							
Master Knee Slope (@FILM MENU &	OSA:25:[Data] QSA:25	80h - 251	350%							83h (500%)									
VIDEO REC)	40/1/20	85h	600% (1step=50%)																
		1Dh	-99	0								0							
R Knee Slope	OSA:26:[Data]	_ 80h _	0																
(@VIDEO MENU)	QSA:26	E3h	+99																
		1Dh	-99	0								0							
B Knee Slope (@VIDEO MENU)	OSA:27:[Data]	– 80h	0																
(@VIDEO MENU)	QSA:27	E3h	+99																
		4A h	80.00%									0							
Auto Knee Point	OSA:28:[Data]	– 80h	93. 50%																
Auto Knee Point (@VIDEO MENU)	OSA:28:[Data] QSA:28	– B6h	- 107. 00% (1step=0. 25%)																
		701																	
Auto Knee Level	OSA:29:[Data] QSA:29	7Ch -	100%									O						-	
(@VIDEO MENU)	QSA:29	85h	109% (1step=1%)																
		00h -	90%	0	0		0	0		0	0					0			
	OSA:2A:[Data]	13h	109%																
White Clip Level	QSA:2A	<u>UE160</u> 50h	<u>UE160</u> 80%																
		_ 6Dh	_ 109%																
		0	Off	supports only 0(Off)	supports only 0(Off)		supports only	supports only 0(Off)		supports only 0(Off)	supports only 0(Off)	supports only				0			
Knee Mode	OSA:2D:[Data]	2	Manual Auto	0 (011) 1 (Manual) 2 (Auto)	2 (Auto) 3 (Low) 4 (Mid)		0(Off) 1(Manual) 2(Auto)	0 (011) 1 (Manual) 2 (Auto)		0 (011) 1 (Manual) 2 (Auto)	0 (011) 1 (Manual) 2 (Auto)	supports only 0(Off) 1(Manual) 2(Auto)							
Kriee Mode	QSA:2D	3 4 5	Low Mid High	Z (Auto)	4 (Mid) 5 (High)		Z (Auto)	Z (AULO)		Z (Auto)	2 (Auto)	Z (AULO)							
	004:05:50-4-3	0		0	O (ITIGIT)		0	0		0	0					0			
White Clip	OSA:2E:[Data] QSA:2E	1	Off On		0														
		61h -	-31 -	0	0		0	0		0	0	0	supports only 81h(1)-91h(17)	supports only 81h(1)-91h(17)	supports only 81h(1)-91h(17) for Detail Level	0		supports only 81h(1)-91h(17) for Total Dtail Level (L)	
		80h _ 9Fh	0 - +31										(L)	(L)	(L)			Level (L)	
Master Detail	OSA:30:[Data]	9F11																	
madidi Delali	QSA:30	61h _	HR140, HE130 0 -																
		80h -	+31																
		9Fh	+62																
ш. Б	OSA:31:[Data]	00h -	0 -									0							
H Detail Level	QSA:31	3Fh	63																
		61h -	-31 -	0			0	0		0		0							
Detail Gain(+)	OSA:38:[Data] QSA:38	80h -	0 -																
		9Fh	+31																
	054 · 30 · [Da+a]	61h _ 80h	-31 - 0				0					0							
Detail Gain(-)	OSA:39:[Data] QSA:39	80n _ 9Fh	- +31																
	-	0 9FII					 					0							
	004.00.50.5	1 2	(G+R) /2 (G+B) /2 (2G+B+R) /4																
Detail Source	OSA:3B:[Data] QSA:3B	- 3 4	(3G+R) /4 R																
		5	G																
Skin Tone Detail	OSA:40:[Data] QSA:40	0 1	Off On	0	0		0	0		0		0							
Skin Get	OSA:41:[Data] QSA:41	0 1	Off									0							
okili uet	QSA:41	2	On Get	1															

	Command		Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		00h	Response to contol 0	0								0							
Skin Tone Detail I Center(HD)	OSA:45:[Data] QSA:45	– FFh	_ 255																
			0																
Skin Tone Detail	OSA:46:[Data]	00h _ 	-	O															
I Width(HD)	QSA:46	FFh	255																
Skin Tone Detail	OSA:47:[Data]	00h -	0 -	0								0							
Q Width(HD)	QSA:47	FFh	255																
Skin Tone Zebra	OSA:49:[Data] QSA:49	0	Off On	0								0							
	GON: 10	7 <mark>A</mark> h	-6dB									0							
		7Ch	0dB																
Low Gain	OSA:50:[Data]	- 80h	12dB																
Low dam	QSA:50	– 86h	- 30dB																
		– 88h	- 36dB																
	1	7 A h	-6dB											 					
		780 - 7Ch																	
	004 54 50 4 3	-	-																
Mid Gain	OSA:51:[Data] QSA:51	80h -	12dB -																
		86h -	30dB -																
		88h	36dB																
		7 A h _	-6dB -									0							
		7Ch	0dB																
High Gain	OSA:52:[Data] QSA:52	- 80h	12dB																
mgn warn	QSA:52	– 86h	- 30dB																
		– 88h	- 36dB																
	1	0	S. Gain1									0		 		I			
Super Gain Memory Select	OSA:60:[Data] QSA:60	1 2	S. Gain2 S. Gain3																
		00h	0ff	supports only	support only	support only	support only	support only		supports only	supports only	supports only	supports only	supports only	supports only	supports only	supports only	supports only	supports only
		06h 0Ch	+6dB	00h (0ff) – 18h (+24dB)	00h (0ff) – 18h (+24dB),	00h (0ff) – 18h (+24dB),	00h (0ff) – 18h (+24dB) ,	00h (0ff) – 18h (+24dB),		00h (0ff) – 18h (+24dB)	supports only 00h(0ff)- 18h(+24dB)	00h (0ff) – 18h (+24dB)	00h (0ff) – 18h (+24dB),	00h (0ff) – 18h (+24dB),	00h (0ff) -	00h (0ff) – 18h (+24dB)	00h (0ff) – 18h (+24dB)	00h (0ff) – 12h (+18dB),	00h (0ff) – 12h (+18dB),
Frame Mix	OSA:65:[Data]	12h 18h	+18dB +24dB	1011(1240)	80h (Auto)	80h (Auto)	80h (Auto)	80h (Auto)		Ton (· Z-rab)	1011(12405)	1011(12440)	80h (Auto)	80h (Auto)	80h (Auto)	1011(12445)	Ton (· Z-rab)	80h (Auto)	80h (Auto)
rrame wix	QSA:65	1Eh	+12dB +18dB +24dB +30dB Auto																
		80h	Auto																
	+	58h	0. 15	0	supports only		supports only	supports only 67h(0.30)-		supports only	supports only					supports only			
Master Gamma	OSA:6A:[Data]	– 80h	- 0. 55		67h (0. 30) – 94h (0. 75)		supports only 67h(0.30)- 94h(0.75)	67h (0. 30) – 94h (0. 75)		supports only 67h(0.30)- 94h(0.75)	supports only 67h (0.30) – 94h (0.75)					supports only 67h(0.30)- 94h(0.75)			
master dallilla	QSA:6A	– 94h	- 0. 75																
	-	0	0.70	supports only								0							
Linear Matrix	OSA:84:[Data] QSA:84	1 2	0n 0n	supports only 0(0ff), 1(0n)															
Color Correction	OSA:85:[Data] QSA:85	0 1	Off On	0								0							
Format	OSA:87:[Data]	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	QSA:87												1				1	1	

ITEM	Comma Control / R		Data	Data Contents Control and											I				1	
	Confirm	nation	0	Response to contol Off	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
OSD Status	OSA:88:[Data QSA:88	.a.j	1	0n	Ŭ	<u> </u>		<u> </u>	Ŭ		<u> </u>			aumanta anlu	Januarita antic	Javanauta anlu		<u> </u>		<u> </u>
Total Dtail Laval			61h - 80h	-31 - 0										supports only 82h(2)-92h(18) for Detail	supports only 82h(2)-92h(18) for Detail	supports only 82h(2)-92h(18) for Detail			supports only 82h(2)-92h(18) for Total Detail	
Total Dtail Level High	QSA:B1	.a.j	9Fh	- +31										Level (H)	Level (H)	Level (H)			Level (H)	
	004 - 00 - 50 - 1	1	9F11	0ff	0															
Audio	OSA:DO:[Data QSA:DO	·a]	1	0n	O		0	0		O	0	0		O		0	O			
			0 1	Mic High Mic Middle		supports only 0 (Mic)	supports only O(Mic)	supports only 0 (Mic)	supports only O(Mic)		supports only O(Mic)			0	0	0	0			
Audio Input Type	OSA:D1:[Data QSA:D1	a]	3	Mic Low Line High		3 (Line)	3 (Line)	3 (Line)	3 (Line)		3(Line)									
			5	Line Middle Line Low																
Audio Plugin Powe	OSA:D2:[Data	a]	0 1	Off On		0	0		0		0			0	0	0	0			
Tally Brightness	OSA:D3:[Data	a]	0 1	Low Mid	0	0			0		0						0			
Tarry Dirigittiess	QSA:D3		2	High																
			[Data1] 0	[Data1] CH1/CH3	O															
			[Data2]	CH2/CH4 [Data2]																
			1 2	+4dB 0dB -20dB																
Audio Line Input Level	۷		<u>UE160</u>																	
Love	QSA:D4:[Data	a1]	<u>32733</u> [Data1] 0	<u>UE160</u> [Data1] Input1																
			1 [Data2]	Input2 [Data2] +4dB																
			0	+4dB 0dB																
			[Data1]	[Data1]	[Data1]	[Data1]	[Data1]	[Data1]	[Data1]		[Data1]	[Data1]				 				
			0 1	CH1 CH2	supports only 0(CH1)	supports only 0(CH1)	supports only O(CH1)	supports only 0(CH1)	supports only 0(CH1)		supports only 0(CH1)	supports O(CH1)-3(CH4)								
	004 : 05 : [0-+	-17 · [Data	2 3	CH3 CH4	1 (CH2) [Data2]	1 (CH2) [Data2]	[Data2] supports only	1 (CH2) [Data2]	[Data2] supports only		[Data2] supports only	[Data2] supports only								
Audio Volume Leve	OSA:D5:[Data el 2] QSA:D5:[Data		[Data2] 58h	[Data2] -40dB	supports 58h(-40dB)	supports only 5Ch(-36dB)	5Ch (-36dB) -	supports only 62h(-30dB)	5Ch (-36dB) -		5Ch (-36dB) -	58h (-40dB) -								
	QSA.DS.[Data	aıj	_ 80h	-	- 94 (20dB)	- 8C(12dB) (step:3dB)	8C(12dB) (step:3dB)	- 94 (20dB)	8C(12dB) (step:3dB)		8C(12dB) (step:3dB)	8C(12dB) (step:1dB)								
			_ 94h	_ 20dB	(step:1dB)	(step:3dB)		(step:1dB)												
	221 22 52 1		0	FS-12dB	0							0								
Audio Head Room	OSA:D6:[Data QSA:D6	[a]	1 2	FS-18dB FS-20dB																
			0	AII CH1/CH2								0								
Audio Line CH Select	OSA:D7:[Data QSA:D7	a]	2	CH3/CH4 None																
	OSC:[Data]		*	*															 *	*
SC Coarse	QSC		02h	2														0		
H Detail Level H	OSD:OA:[Data QSD:OA	a]	_ 3Fh	- 63																
			02h	2														0		
V Detail Level H	OSD:OE:[Data QSD:OE	a]	_ 1Fh	- 31																
		_	01h	1														0		
H Detail Level L	OSD:12:[Data QSD:12	[a]	_ 3Eh	- 62																
	000.10.50		01h	1														0		
V Detail Level L	OSD:16:[Data QSD:16	aj	_ 1Eh	30																
	090 · 1E · [Do+	al	01	01														0		
Detail Band	OSD:1E:[Data QSD:1E]	_ 05	05																
Noise Suppress	0SD:22:[Data	a]	00h -	0 –	0							support only 00(0)-3C(60)	0		 		support only 00(0)-3C(60)	support only 00(0)-07(7)		
/Crisp	QSD:22		3Fh	63								,								
Lovel Denominations	0SD:26:[Data	a]	00h -	00	0								0							
Level Dependent	QSD:26		0Fh	15																
		T	00h -	-31 -	0													0		
Matrix(R-G) /Matrix(R-G)_N	OSD:2F:[Data QSD:2F	a]	1Fh 	0 –																
			3Eh	+31																
		,	00h 	-31 -	0													0		
Matrix(R-B) /Matrix(R-B)_N	OSD:30:[Data QSD:30	aj	1Fh _ -	0																
			3Eh	+31																
Motriw (O. D)	000.01.55	اما	00h - 15b	-31 -																
Matrix(G-R) /Matrix(G-R)_N	OSD:31:[Data QSD:31	aj	1Fh - 2Eh	0 -																
i .	I		3Eh	+31	1	1	1	1	I	I	1	1	I	1	1	1	1	1	Ī	İ

ITCM	Command	Data	Data Contents			ı			T			1	1						
ITEM	Control / Response / Confirmation	Data 00h	Control and Response to contol -31	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Matrix(G-B)	OSD:32:[Data] QSD:32	00h _ 1Fh	-31 - 0		_														
/Matrix(G-B)_N	QSD:32	_ 3Eh	+31																
		00h _	-31 -	0													0		
Matrix(B-R) /Matrix(B-R)_N	OSD:33:[Data] QSD:33	1Fh - 3Eh	0 - +31																
		00h	-31	0						<u> </u>			<u> </u> 				0		
Matrix(B-G) /Matrix(B-G)_N	OSD:34:[Data] QSD:34	– 1Fh –	0																
/ macr / x (b a/ _ ii	Q0D : 0 1	3Eh	+31																
		9C ∼ FF	−100 ~ −1									0							
Flare R	OSD:35:[Data] QSD:35	00 01	0 +1																
		~ 64	+100																
		90 ~ FF	-100 ~									0							
Flare G	OSD:36:[Data] QSD:36	00 01	0 +1																
		~ 64	+100																
	1	9C ~	-100 ~									0							
Flare B	OSD:37:[Data] QSD:37	FF 00 01	-1 0																
	QOD . 0 /	~ 64	+100																
		00 01	Off Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OSD:3A:[Data]	02	High																
DNR	QSD:3A	<u>UE160, AK-UB300</u> 00 01	U <u>E160, UB300</u> Off On																
		02	0n																
		00h	<u>UE160, UE100, UE20, HE20, UE4.</u> <u>UE150, HE145, HR140, HE130</u> -50	O	O	supports only 2Eh(-4) -	0	O	supports only 2Eh(-4) -	O	0	0	O	0	O	O	O	O	O
		_ 32h	0			36h (4)			36h (4)										
		_ 64h	+50																
		001-	<u>UE70series, HE75series,</u> <u>HE70series, HE120</u> -10																
Diatura Laval		00h - 32h	-10 - 0																
Picture Level /A.Iris Level /Iris Offset	OSD:48:[Data] QSD:48	_ 64h	10																
		00h	<u>HE60, HE50</u> −5																
		- 32h -	- 0 -																
		64h	5																
		00h _	<u>UB300</u> 0 -																
		64h	100																
Flesh Noise Suppress	OSD:4B:[Data] QSD:4B	00 01 02	Off Low High														0		
- Саррі ССС		00h	Close	0	0	0	0	0		0	0		0	0	0	0	0	0	0
Iris Follow	QSD:4F OSD:4F:[Data]	- FFh	– Open									<u> </u>							
		00 01	Low Mid			0			0				0	0	0		0	0	0
Contrast (Gamma)	OSD:50:[Data] QSD:50	02	High <u>UE20/HE20/UE4</u>																
(damma)	QSD . 50	0 -	0 -																
	000.05.50-4.3	00	RGB	 													Y/C is Valid		
Output Select	OSD:65:[Data] QSD:65	01 02	RGB YPbPr Y/C																
		01 02 03	6dB 12dB 18dB 24dB 30dB 36dB 42dB 48dB	supports only 01(6dB) -	supports only 01(6dB) -	_	supports only 01(6dB) -	supports only 01(6dB) -	supports only 04(24dB) -	supports only 01(6dB) -	supports only 01(6dB) -		supports only 01(6dB) -	_	supports only 01(6dB) -				
AGC Max Gain	OSD:69:[Data] QSD:69	04 05	24dB 30dB	02 (12dB)	06 (36dB)	07 (42dB)	06 (36dB)	03 (18dB)	07 (42dB)	03 (18dB)	03 (18dB)		08 (48dB)	08 (48dB)	08 (48dB)	03 (18dB)	03 (18dB)	03 (18dB)	03 (18dB)
		06 07 08	36dB 42dB 48dB																
		•	T00D			1													

ITEM	Command Control / Response / Confirmation	Data	Data Contents Control and	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	OOTT TT III A E TOTT	01h _	Response to contol -127 -	supports only 01h(-127)	supports only		ipports only h(-63)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	supports only 01h(-127)				supports only 41h(-63)	0		
Color Correction B_Mg Saturation	OSD:80:[Data] QSD:80	80h - FFh	0 - +127	FEh (+126)	BFh (+63)	-	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)				BFh (+63)			
		01h	-127 -	supports only 01h(-127)	supports only 41h(-63)		ipports only h(-63)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	0				supports only 41h(-63)	0		
Color Correction B_Mg Phase	OSD:81:[Data] QSD:81	80h - FFh	0 - +127	FEh (+126)	BFh (+63)	-	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)					BFh (+63)			
		01h _	-127 -	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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 Mg Saturation	OSD:82:[Data] QSD:82	80h - FFh	0 - +127	– FEh (+126)	BFh (+63)	-	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)	- FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
		01h	-127	supports only 01h(-127)	supports only 41h(-63)		upports only h(-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 Mg Phase	OSD:83:[Data] QSD:83	80h - FFh	0 - +127	FEh (+126)	BFh (+63)	-	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		01h _	-127 -	supports only 01h(-127)	supports only 41h(-63)		upports only h(-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 Mg_R Saturation	OSD:84:[Data] QSD:84	80h - FFh	0 - +127	FEh (+126)	BFh (+63)	-	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
		01h _	-127 -	supports only 01h(-127)	supports only		pports only h(-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 Mg_R Phase	OSD:85:[Data] QSD:85	80h - FFh	0 - +127	FEh (+126)	BFh (+63)	-		BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		01h -	-127 -	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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 – FFh	0 - +127	– FEh (+126)	- BFh (+63)	- BF	Th (+63)	- BFh (+63)		– BFh (+63)	– BFh (+63)	- FEh (+126)	- 9Fh (+31)	- 9Fh (+31)	– 9Fh (+31)	- BFh (+63)			
		01h -	-127 -	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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 - FFh	0 - +127	– FEh (+126)	- BFh (+63)	- BF	Th (+63)	- BFh (+63)		- BFh (+63)	- BFh (+63)		– BFh (+63)	- BFh (+63)	– BFh (+63)	- BFh (+63)			
		01h -	-127 -	supports only 01h(-127)	supports only		pports only h(-63)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	supports only 01h(-127)				supports only 41h(-63)	0		
Color Correction R_YI Saturation	OSD:88:[Data] QSD:88	80h - FFh	0 - +127	- FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	- BFh (+63)	- FEh (+126)				BFh (+63)			
	000.00.50	01h -	-127 -	supports only 01h(-127)	supports only		pports only h(-63)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	0				supports only 41h(-63)	0		
Color Correction R_YI Phase	OSD:89:[Data] QSD:89	80h - FFh	- +127	- FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)					BFh (+63)			
0.1.0	000.04.50 + 1	01h	-127 -	supports only 01h(-127)	supports only		pports only h(-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 Yl Saturation	OSD:8A:[Data] QSD:8A	80h - FFh	- +127	- FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)	- FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
Calar Carrection	OSD:8B:[Data]	01h - 80h	-127 -	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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 Yl Phase	QSD:8B	- FFh	+127	FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
Color Correction	000 · 00 · [ha+a]	01h -	-127 -	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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	QSD:8C	80h _ FFh	+127	- FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)	- FEh (+126)				BFh (+63)			
Color Correction	0SD:8D:[Data]	01h - 80h	-127 - 0	supports only 01h(-127)	supports only 41h(-63)		pports only h(-63)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	0				supports only 41h(-63)	0		
YI_G Phase	QSD:8D	- FFh	+127	- FEh (+126)	BFh (+63)	BF	^c h (+63)	BFh (+63)		BFh (+63)	BFh (+63)					BFh (+63)			
Color Correction	OSD:8E:[Data]	01h - 80h	-127 - 0	supports only 01h(-127) -	supports only 41h(-63)		pports only h(-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		
G Saturation	QSD:8E	- FFh	+127	FEh (+126)	BFh (+63)	BF	^c h (+63)	BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
Color Correction	OSD:8F:[Data]	01h - 80h	-127 - 0	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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		
G Phase	QSD:8F	- FFh	+127	FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
Color Correction	0SD:90:[Na+a]	01h - 80h	-127 - 0	supports only 01h(-127)	supports only 41h(-63)		pports only h(-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		
G_Cy Saturation	QSD:90	- FFh	+127	- FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)	FEh (+126)	9Fh (+31)	9Fh (+31)	9Fh (+31)	BFh (+63)			
Color Correction	OSD:91:[Data]	01h - 80h	-127 - 0	supports only 01h(-127) -	supports only 41h(-63)		pports only h(-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		
	QSD:91	evn - FFh	- +127	- FEh (+126)	BFh (+63)	BF	Th (+63)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			

	Command		Data Contents	1															
ITEM	Command Control / Response /	Data	Control and	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	Confirmation	01h	Response to contol -127	supports only	supports only		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	01h (-127) -	41h (-63) -		41h (-63) -	41h (-63) -		41h (-63) -	41h (-63) -	01h (-127) -	61h (-31) -	61h (-31) -	61h (-31) -	41h (-63) -			
Cy Saturation	QSD:92	– FFh	- +127	FEh (+126)	BFh (+63)		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		supports only	supports only	0	supports only	supports only	supports only	supports only	0		
Color Correction	OSD:93:[Data]	- 80h	- 0	01h (-127)	41h (-63)		41h (-63)	41h (-63)		41h (-63)	41h (-63)		41h (-63)	41h (-63)	41h (-63)	41h (-63)			
Cy Phase	QSD:93	-	-	FEh (+126)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
		FFh	+127																
		01h -	-127 -	supports only 01h(-127)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)		supports only 41h(-63)	supports only 41h(-63)	supports only 01h(-127)	 			supports only 41h(-63)	O		
Color Correction Cy_B Saturation	OSD:94:[Data] QSD:94	80h -	0 -	– FEh (+126)	– BFh (+63)		– BFh (+63)	– BFh (+63)		– BFh (+63)	– BFh (+63)	– FEh (+126)				– BFh (+63)			
		FFh	+127																
		01h -	-127 -	supports only 01h(-127)	supports only 41h(-63)		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 -	– FEh (+126)	– BFh (+63)		– BFh (+63)	– BFh (+63)		– BFh (+63)	– BFh (+63)					BFh (+63)			
oy_b i nade	400.00	FFh	+127	12.1(*120)	J. 11 (* 66)		D. II (* 66)	5111(*66)		Br II (* 66)	D. II.(100)					J. II (* 66,			
		01h	-127	supports only	supports only		supports only	supports only		supports only	supports only	supports only	supports only	supports only 61h(-31)	supports only	supports only	0		
Color Correction	OSD:96:[Data]	- 80h	0	01h (-127) -	41h (-63)		41h (-63) -	41h (-63) -		41h (-63) -	41h (-63) -	01h (-127) -	61h (-31) -	-	61h (-31) -	41h (-63) -			
B Saturation	QSD:96	– FFh	- +127	FEh (+126)	BFh (+63)		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		supports only	supports only	0	supports only	supports only	supports only	supports only	0		
	OSD:97:[Data]	- 80h	0	01h (-127) -	41h (-63) -		41h (-63) -	41h (-63) -		41h (-63) -	41h (-63) -		41h (-63) -	41h (-63) -	41h (-63) -	41h (-63) -			
B Phase	QSD:97	– FFh	- +127	FEh (+126)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)		BFh (+63)	BFh (+63)	BFh (+63)	BFh (+63)			
	+	<u>Data1</u>	<u>Output</u>															suports only	
		0	Browser/Video SDI/HDMI,Component															Output O(Browser/Video), 1(SDI/HDMI,Compon	
		nata?	Character Mix Select															1 (SDI/HDMI, Component)	
Character Mix	OSD:98:[Data1]:[Data	<u>Data2</u> 0	Off On															,	
	2] QSD:98:[Data1]	2	Off By Browser															<u>Character Mix</u> <u>Select</u> 2(Off By Browser)	
																		2(0ff By Browser) is Valid When	
																		is Valid When Output is 1 (SDI/HDMI, Compon	
																		ent)	
0-10		41h -	-63 -		0		0	0		0	0					0			
Color Correction Mg_R_R Saturation	QSD:9A	80h -	0 -																
		BFh	+63																
Oalan Oannastian	000:00:[0-+-]	41h -	-63 -		O		O			0						O			
Color Correction Mg_R_R Phase	QSD:9B	80h 	0 -																
		BFh	+63											ļ.,					
		41h -	-63 -		O		O			0			supports only 61h(-31)	supports only 61h(-31)	supports only 61h(-31)	O			
Color Correction R_R_YI Saturation	OSD:9C:[Data] QSD:9C	80h -	0 -										– 9Fh (+31)	– 9Fh (+31)	- 9Fh (+31)				
		BFh	+63																
	000.00.50	41h -	-63 -		0		0	0		0	0		0	0	0	0			
Color Correction R_R_YI Phase	QSD:9D	80h -	0 –																
		BFh 41h	+63 -63										supports only	supports only	supports only				
Color Correction	050:0E:[Da+a]	-	- 0							ľ			61h (-31)	61h (-31)	supports only 61h(-31)				
R_YI_YI Saturation	QSD:9E	80h -	- -										9Fh (+31)	9Fh (+31)	9Fh (+31)				
		BFh 41h	+63				0								0	0			
Color Correction	OSD:9F:[Data]	41n - 80h			Ĭ l										ľ	ľ			
	QSD:9F	-	- -																
<u> </u>		BFh 79h	+63 -7		0		0	0		0	0					0		-	
V Dotoil Lavel	OSD:A1:[Data]	- 80h	_ 0																
V Detail Level	QSD: A1	- 87h	7																
		79h	-7				0	0		0	0					0		-	
Detail Band /Detail Frequency	OSD:A2:[Data]	_ 80h	_ 0																
/Detail Frequency	QSD: A2	- 87h	7																
Flesh Tone Noise		80h	0		0		0	0		0	0		 			0			
Suppress /Skin Detail Effect	OSD:A3:[Data] QSD:A3	– 9Fh	- 31																
Effect	1	41h	_62						 							0			
	OSD:A4:[Data]	-			Ĭ,						Ĭ					ľ			
Matrix(R-G)	OSD:A4:[Data] QSD:A4	80h -	U -																
		BFh 41h	63 -63				0	0		0			 			0		<u> </u>	
	0SD:45:[Da+a]	-	- - ^		Ĭ l					Ĭ									
_	OOD · NO · [Dara]	80h	I U	I	1					1	1	1	I	1			1		
Matrix(R-B)	OSD:A5:[Data] QSD:A5	– BFh	63																

	Command		Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		41h -	-63 -		0		0	0		0	0					0			
Matrix(G-R)	OSD:A6:[Data] QSD:A6	80h	0																
		BFh	63																
		41h -	-63 -		0		0	0		0	0					0			
Matrix(G-B)	OSD:A7:[Data] QSD:A7	80h -	0																
	GOD TAT	BFh	63																
		41h -	-63 -		0		0	0		0	0					0			
Matrix(B-R)	OSD:A8:[Data] QSD:A8	80h -	0 -																
		BFh	63																
		41h -	-63 -		0		0	0		0	0					0			
Matrix(B-G)	OSD:A9:[Data] QSD:A9	80h -	0																
		BFh	63																
		61h -	-31 -										0	0	0				
Color Correction Cy_Cy_B Saturation		80h -	0 -																
		9Fh	+31																
0-1 0	000 - 40 - 50 3	41h -	-63 -										0	0	0				
Color Correction Cy_Cy_B Phase	OSD:AB:[Data] QSD:AB	80h -	0 -																
		BFh	+63																
Color Correction	OSD:AC:[Data]	61h -	-31 -																
Cy_B_B Saturation	QSD: AC	80h -	-																
		9Fh 41h	+31 -63											0	0				
Color Correction	OSD:AD:[Data]	- 80h	-																
Cy_B_B Phase	QSD: AD	– BFh	- +63																
	1	00h	Off	supports only	supports only	 	supports only	supports only		supports only	supports only	0				supports only			
		1 C h -	-100% -	00 (0ff), 1C (-100%) -	00 (Off), 1D (-99%) -		00 (0ff), 1D (-99%) -	00 (0ff), 1D (-99%) -		00(0ff), 1D(-99%) -	supports only 00(0ff), 1D(-99%) -					00 (Off), 1D (-99%) -			
		80h -	0 -	A8 (40%)	E3 (99%)		E3 (99%)	E3 (99%)		1D (-99%) - E3 (99%)	A8 (40%)					A8 (40%)			
		A8h -	40% -																
Chroma Level	OSD:BO:[Data]	E3h	99%																
om oma Lever	QSD:B0	<u>AK-UB300</u> 00h	<u>UB300</u> -100%																
		1Dh	-99% -																
		80h	0																
		A8h	40%																
Color Temperature	OSD:B1:[Data]	*	*								*		*	*	*	*			
Night Mode Select	QSD:B1 OSD:B2:[Data]	0	Manua I	 									0	0	0				
HISHE MOUE SELECT	QSD:B2	0	Auto Disable	[Zoom Mode]	[Zoom Mode]	[Zoom Mode]	[Zoom Mode]	[Zoom Mode]		[Zoom Mode]			0	0	0				
		1	Enable	-0pt Zoom 0SE:70:0	-Opt Zoom OSE:70:0	-Opt Zoom OSE:70:0	-Opt Zoom OSE:70:0	-Opt Zoom OSE:70:0		-Opt Zoom OSE:70:0									
				OSD:B3:0	0SD:B3:0 -i Zoom	OSD:B3:0 -i Zoom	OSD:B3:0 -i Zoom	OSD:B3:0		OSD:B3:0									
i. Zoom	OSD:B3:[Data] QSD:B3			0SE:70:0 0SD:B3:1	0SE:70:0 0SD:B3:1	0SE:70:0 0SD:B3:1	0SE:70:0 0SD:B3:1	0SE:70:0 0SD:B3:1		0SE:70:0 0SD:B3:1									
				-D Zoom 0SE:70:1	-D Zoom 0SE:70:1	-D Zoom 0SE:70:1	-D Zoom 0SE:70:1	-D Zoom 0SE:70:1		-D Zoom 0SE:70:1									
				0SD:B3:0	0SD:B3:0	0SD:B3:0	0SD:B3:0	0SD:B3:0		0SD:B3:0									
		0	Off										supports only	supports only	supports only				
HDR	OSD:B4:[Data] QSD:B4	2	Low Mid High										igh)	igh)	0(Off),1(Low),3(High)				
		3 0	High Low										0	0	0				
Night-Day Level	OSD:B7:[Data] QSD:B7	1 2	Mid High																
	300.07	<u> </u>																	
Digital Extender	000.80.[De+e]	1	x1. 4 x2. 0																_
Magnification	OSD:B8:[Data] QSD:B8	3	x4. 0 x6. 0 x8. 0																
		4	X8. U	<u> </u>															

ITEM	Command Control / Response / Confirmation	Data	Data Contents Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Format_SDI	OSD:B9:[Data] QSD:B9	0h 1h 2h 3h 4h 5h 6h 7h 8h 9h Ah Bh Ch Dh Eh 10h 11h 12h 13h 14h 15h	720/60p 720/59. 94p 720/59. 94p 720/50p 1080/60i 1080/59. 94i 1080/50i 1080/30psF 1080/29. 97psF 1080/25psF 1080/24psF 1080/23. 98psF 480/59. 94i 480/29. 97psF 576/50i 576/25psF 1080/59. 94p 1080/59. 94p 1080/59. 94p 576/50p 1080/29. 97p 1080/29. 97p										7h (1080/29. 97psF) 10h (1080/59. 94p) 14h (1080/29. 97p) [50Hz] supports only 2h (720/50p) 5h (1080/50i)	10h (1080/59.94p)					
Color Bar Type	OSD:BA:[Data] QSD:BA	0 1 2 3 4	TYPE2:FULL TYPE1:SMPTE TYPE3:ARIB (MULTI) TYPE4: ARIB (UHD MULTI) TYPE5: ARIB (BT. 2020)	Ο	supports only 0(Type2(Full BAR/EBU)),1(Type1 (SMPTE))		supports only 0(Type2(Full BAR/EBU)),1(Type (SMPTE))	supports only 0(Type2(Full BAR/EBU)),1(Type1 (SMPTE))		supports only 0(Type2(Full BAR/EBU)),1(Type1 (SMPTE))			supports only 0(Type2(Full BAR/EBU)),1(Type1 (SMPTE))	supports only 0 (Type2 (Full BAR/EBU)), 1 (Type1 (SMPTE))	V1. 21+AW-SFU01 supports only 0 (Type2 (Full BAR/EBU)), 1 (Type1 (SMPTE))				
	OSD:BB:[Data] QSD:BB	0 1	Off On							 			0	0	V1. 21+AW-SFU01				
Fauglizo	OSD:BC:[Data] QSD:BC	0	Off Low Cut										0	0	V1. 21+AW-SFU01				
Color Por Title	OSD:BE:[Data] QSD:BE	0 1	Voice Off On	0					·				0	0	V1.21+AW-SFU01				
Auto Shutter Limit		0 1 2 3 4 2 3 4 5 5	[59.94Hz] [50Hz] Off Off 1/60 1/50 1/100 1/100 1/120 1/125 1/250 1/250 UE160, UE80, UE50, UE40, UR100, UE100, UE150 1/100 1/120 1/250 1/500 1/1000 1/2000 -31	supports only 2(1/100), 3(1/120), 4(1/250)	0		0	supports only 2(1/100), 3(1/120), 4(1/250)		supports only 2(1/100), 3(1/120), 4(1/250)			0	0					
Color Correction B_B_Mg Saturation	OSD:CO:[Data] QSD:CO	61h - 80h - 9Fh	- 0 - +31										0	0	0				
Color Correction B_B_Mg Phase	OSD:C1:[Data] QSD:C1	41h - 80h - BFh	-63 - 0 - +63																
Color Correction B_Mg_Mg Saturation	OSD:C2:[Data] QSD:C2	61h - 80h - 9Fh	-31 - 0 - +31																
Color Correction B_Mg_Mg Phase	OSD:C3:[Data] QSD:C3	41h - 80h - BFh	-63 - 0 - +63										0		0				
Color Correction YI_YI_G Saturation	OSD:C4:[Data] QSD:C4	61h - 80h - 9Fh	-31 - 0 - +31																
Color Correction YI_YI_G Phase	OSD:C5:[Data] QSD:C5	41h - 80h - BFh 61h	-63 - 0 - +63										0	0	0				
Color Correction YI_G_G Saturation	OSD:C6:[Data] QSD:C6	9Fh	-31 - 0 - +31 -63										0	0	0				
Color Correction YI_G_G Phase	OSD:C7:[Data] QSD:C7	80h - BFh	- 0 - +63																
E.DRS Select	OSD:C8:[Data] QSD:C8	0 1 2 3	Off Low Mid High Side Cut										supports only 0(Off), 1(Low), 3(High)	supports only 0(Off), 1(Low), 3(High)	supports only 0 (Off), 1 (Low), 3 (High)				O
D/C Mode (D/C Board)	OSE:20:[Data] QSE:20	1 2 3	Side Cut Squeeze Letter Box Link																

ITEM	Command Control / Response / Confirmation	Data	Data Contents Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	OOTH IT MALTOIT	0 1 2 3	Normal EBU Matrix NTSC Matrix User Professional	0	supports only 0 (Normal) 3 (User) 4 (Professional)		supports only 0(Normal) 3(User) 4(Professional)	supports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)		supports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)		supports only O(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 O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	supports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix) 3(User)	suports only O(Normal) 1(EBU Matrix) 2(NTSC Matrix)
Matrix Type /Preset Matrix	OSE:31:[Data] QSE:31	4 <u>UE160</u> 0 1 2 3 4	UE160 Normal Cinema1 Cinema2 User HD					3 (user)		3 (user)	3 (User)		3 (user)	3 (user)	3 (USET)	3 (user)	3 (user)	S (USET)	
Soft Skin	OSE:32:[Data] QSE:32	0 1 2 3	Off Low Mid High										supports only 0 (Off), 1 (Low), 3 (Figh)	supports only 1 O(Off),1(Low),3(High)	supports only 0 (Off),1(Low),3(H igh)			supports only 0(Off),1(Low),3 igh)	supports only H O(Off),1(Low),3(H igh)
DRS	OSE:33:[Data] QSE:33	0 1 2 3	Off Low Mid High UE20/HE20/UE4 Off On		0	0	0	0	0	0	0		supports only 0(Off),1(Low),3(High)	supports only 0 (Off), 1 (Low), 3 (Figh)	supports only 0 (Off),1 (Low),3 (H igh)	0	0	supports only 0 (Off), 1 (Low), 3 igh)	supports only H 0(Off),1(Low),3(Figh)
HDMI Video Sampling	OSE:68:[Data] QSE:68	0 1 2 3 4	RGB (NOR) RGB (ENH) YPbPr (422) YPbPr (444) YPbPr (420)	supports only 2 (YPbPr (422)) 4 (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 only							supports only 0 (RGB (NOR)) 1 (RGB (ENH)) 2 (YPbPr (422)) 3 (YPbPr (444))	supports only 0 (RGB (NOR)) 1 (RGB (ENH)) 2 (YPbPr (422)) 3 (YPbPr (444))	supports only 0 (RGB (NOR)) 1 (RGB (ENH)) 2 (YPbPr (422)) 3 (YPbPr (444))
Push Auto Focus Digital Zoom	OSE:69:[Data] OSE:70:[Data] OSE:70	1 0 1	Push Auto Disable Enable	O [Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	O [Zoom Mode] -Opt Zoom	O [Zoom Mode] -Opt Zoom OSE:70:0 OSD:B3:0 -i Zoom OSE:70:0 OSD:B3:1 -D Zoom OSE:70:1 OSD:B3:0	C	C	O	O [Zoom Mode] -Opt Zoom	0		0	0	0	0	0	0	0
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	0	0
Gamma Mode	OSE:72:[Data] QSE:72	0 1 2 0 1 2 3 4 5 6 7	Off Normal Cinema UE100, UE150, HE145, HR140, HE130 HD SD FILMLIKE1 FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC HLG					supports only 0 (HD) 2 (FILMLIKE1) 3 (FILMLIKE2) 4 (FILMLIKE3)		O	supports only 0(HD) 2(FILMLIKE1) 3(FILMLIKE2) 4(FILMLIKE3)		0	O	0	supports only O(HD) 1(SD) 2(FILMLIKE1) 3(FILMLIKE2) 4(FILMLIKE3)	O	O	O
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	0
OSD Off With Tally	OSE:75:[Data] QSE:75	0	Off On		0	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) - 1000(x10.00)	supports only 0100(x1.00) - 0400(x4.00)	supports only 0100(x1.00) - 1000(x10.00)	supports only 0100(x1.00) - 1000(x10.00)		supports only 0100 (x1.00) - 1000 (x10.00)	supports only 0100(x1.00) - 1000(x10.00)		supports only 0100 (x1.00) - 1200 (x12.00)	supports only 0100 (*1.00) - 1200 (*12.00)	supports only 0100 (x1.00) - 1600 (x16.00)	supports only 0100 (x1.00) - 1000 (x10.00)	supports only 0100 (x1.00) - 1000 (x10.00)	supports only 0100 (x1.00) - 1000 (x10.00)	supports only 0100 (x1.00) - 1000 (x10.00)
Frequency	OSE:77:[Data] QSE:77	0 1 2 3 4	59. 94Hz 50. 00Hz 24. 00Hz 23. 98Hz 60. 00Hz	0	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), 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)		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) - 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)		
OSD Mix /Char	OSE:7B:[Data] QSE:7B	00h 01h 02h 04h 08h 10h 20h 40h 80h	SDI On HDMI On Analog On Video On IP/NDI HX On 12G SDI/Optical On MONI/3G SDI/PM On NDI On **bit0:SDI, bit1:HDMI, bit2:Analog, bit3:Video, bit4: IP, bit5:12G SDI/Optical, bit6: MONI, bit7:NDI	only	UE80 supports only 00 (OSD Mix Off) 01 (3G SDI On) 02 (HDMI On) 10 (NDI HX On) 80 (NDI On) UE50 supports only 00 (OSD Mix Off) 01 (3G SDI On) 02 (HDMI On) 10 (NDI HX On) UE40 supports only 00 (OSD Mix Off)		supports only 00 (OSD Mix Off) 01 (3G SDI On) 10 (NDI HX On) 20 (12G SDI On) 80 (NDI On)	supports only 00 (OSD Mix Off) 01 (3G SDI On) 02 (HDMI On) 10 (NDI HX On) 20 (12G SDI On) 80 (NDI On)		UE150 supports only 00 (OSD Mix Off) 01 (SDI On) 02 (HDMI On) 10 (IP On) 20 (12G SDI/OPTICAL On) 40 (MONI On) HE145 supports only 00 (OSD Mix Off) 01 (SDI On) 02 (HDMI On) 10 (IP On)	supports only 00 (OSD Mix Off) 01 (SDI On) 10 (IP On)	supports only 00 (OSD Mix Off) 01 (SDI On) 10 (IP On)				supports only 00 (OSD Mix Off) 01 (SDI On) 02 (HDMI On) 08 (Video On) 10 (IP On)	supports only 00 (OSD Mix Off) 01 (SDI On) 02 (HDMI On) 04 (Analog On) 08 (Video On)		
Preset Digital Extender Enable	OSE:7C:[Data] QSE:7C	0 1	Off On	0	0		0	0		0	0					0			
Preset Zoom Mode	OSE:7D:[Data] OSE:7D	0	MODE A MODE B	0	0		0	0		0	0								

ITEM	Command Control / Response /	Data	Data Contents			T	T						1		1	<u> </u>			
11 - 111	Confirmation		Control and Response to contol	UE160 01h(1) - 08h(8)	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	OSG:30:[Data]	00h _ 04h	- 4	υπ(τ) - υσπ(δ)					_			[In case HD format] 00h(0) - 1Fh(31)							
Peak Frequency	QSG:30	- 1Fh	- 31									[In case 4K format]							
		00h	00	 								00h (0) - 04h (4)							
V Detail Level	OSG:32:[Data] QSG:32	- 3Fh	- 63																
	†	00h _	0 -					 				[In case HD format]							
V Detail Frequency	0SG:35:[Data] QSG:35	04h -	4 -									00h(0) - 1Fh(31) [In case 4K							
		1Fh	31									format] 00h(0) - 04h(4)							
		418h -	-1000 -		support only 738h(-200)	support only 7E2h(-30)	support only 738h(-200)	support only 738h(-200)		support only 738h(-200)		0							
R Gain	OSG:39:[Data] QSG:39	800h - P504	0 -		- 8C8h (200)	- 81Eh (30)	- 8C8h (200)	- 8C8h (200)		- 8C8h (200)									
		BE8h 418h	1000 -1000		support only	support only	support only	support only -		support only		0							
B Gain	OSG:3A:[Data]	- 800h	_ 0		738h (-200) -	7E2h (-30) -	738h (-200) -	738h (-200) -		738h (-200) -									
	QSG:3A	BE8h	1000		8C8h (200)	81Eh (30)	8C8h (200)	8C8h (200)		8C8h (200)									
Level Dependent SW	OSG:3E:[Data] QSG:3F	0 1	Off On	0								0							
Knee Aperture	OSG:3F:[Data]	00h -	0 -	0			supports only 00h(0) - 05h(5)	supports only - 00h(0) - 05h(5)		supports only 00h(0) - 05h(5)		0							
Level	QSG:3F	27h	39																
Detail +Clip	0SG:40:[Data] QSG:40	00h _ 3Fh	- 63						-										
	OSG:41:[Data]	00h	0	0	<u> </u>							0							
Detail -Clip	QSG:41	– 3Fh	- 63																
Memory Select	OSG:42:[Data] QSG:42	0	A B									0							
	₩3U - 4Z	2 000h	C 0									0							-
H Position	OSG:44:[Data] QSG:44	190h	100. 00%																
		0001-	(0.25% step)																
V Position	OSG:45:[Data] QSG:45	000h - 190h	100.00%					[
V Position	QSG:45	19011	100.00% (0.25% step)																
		0	A B					 				0							
Zebra Effect	OSG:47:[Data]	2 3	C A+B																
Memory	QSG:47	4 5	A+B A+C B+C A+B+C																
		6	A+B+C					<u></u>											
		1 2	B C						_										
Skin Tone Effect Memory	OSG:48:[Data] QSG:48	3 4	A+B A+C																
		5 6	A+B A+C B+C A+B+C																
	+	41h	-63	0				 				0							
Skin Tone Crisp	OSG:49:[Data] QSG:49	- 80h -	0 -																
		BFh	+63																
Mankari D. J. J.	OSG:4A:[Data]	1Dh - 80h	-99 - 0																
Master Pedestal	QSG:4A	– E3h	- 99																
		4E0h	-800	0				 				0							
R Pedestal	OSG:4C:[Data] QSG:4C	- 800h -	0 -																
		B20h	800																
	OSG:4D:[Data]	4E0h - 800h	-800 - 0																
G Pedestal	QSG:4D QSG:4D	800h - B20h	- 800																
	-	4E0h	-800	0								0							
B Pedestal	OSG:4E:[Data]	- 800h	_ 0																
	QSG:4E	– B20h	- 800																
Skin Tone	OSG:4F:[Data] QSG:4F	000h -	0 -	0				 				0							
Q Phase		167h	359 Off	0								0				 			
Shutter SW	OSG:59:[Data] QSG:59	1	0n																
Shutter Mode	OSG:5A:[Data] QSG:5A	0 1	Shutter Sync	0								0							
Shutter Speed	OSG:5D:[Data]	*	*					 				*							
	⊌งน ∙ ขบ		1	1		1				<u> </u>	I		1	I	I	<u> </u>	<u> </u>	<u> </u>	

ITEM	Command Control / Response /	Data	Data Contents Control and	UE100	UE00 /UE00 /UE40	UE00 /UE00	LID100	UF100	UE4	115150/115145	UD1 40	UDOO	11570	UE75 ·	UE70 :	UE100	IIE100	UE CO	UEEO
	Confirmation	0	Response to contol HD	UE160	UE80/UE50/UE40 	UE20/HE20	UR100	UE100	UE4	UE150/HE145 	HR140	UB300	UE70series 	HE75series	HE70series	HE130	HE120	HE60	HE50
Gamma Mode	OSG:86:[Data] QSG:86	1 2 3 4 5	FILMLIKE1 FILMLIKE2 FILMLIKE3 FILM REC VIDEO REC																
Chroma Level SW	OSG:93:[Data] QSG:93	0 1	Off On	0								0							
Master Flare	OSG:96:[Data] QSG:96	1Ch - 80h - E4h	-100 - 0 - 100							_		O							
Auto Knee Response	OSG:97:[Data] QSG:97	1 - 8	1 - 8	0			0	-	C			0							
Matrix	OSG:AO:[Data] QSG:AO	0 1	Off On									0							
Color Correct Table	OSG:A4:[Data] QSG:A4	0 1	A B									0							
Matrix (R-G)_N	OSG:A5:N:[Data] OSG:A5:[N P]:[Data] QSG:A5:N	00h - 1Fh - 3Eh	-31 - 0 - +31							_		O							
Matrix (R-G)_P	OSG:A5:P:[Data] OSG:A5:[N P]:[Data] QSG:A5:P	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (R-B)_N	OSG:A6:N:[Data] OSG:A6:[N P]:[Data] QSG:A6:N	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (R-B)_P	OSG:A6:P:[Data] OSG:A6:[N P]:[Data] QSG:A6:P	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (G-R)_N	OSG:A7:N:[Data] OSG:A7:[N P]:[Data] QSG:A7:N	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (G-R)_P	OSG:A7:P:[Data] OSG:A7:[N P]:[Data] QSG:A7:P	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (G-B)_N	OSG:A8:N:[Data] OSG:A8:[N P]:[Data] QSG:A8:N	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (G-B)_P	OSG:A8:P:[Data] OSG:A8:[N P]:[Data] QSG:A8:P	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (B-R)_N	OSG:A9:N:[Data] OSG:A9:[N P]:[Data] QSG:A9:N	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (B-R)_P	OSG:A9:P:[Data] OSG:A9:[N P]:[Data] QSG:A9:P	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (B-G)_N	OSG:AA:N:[Data] OSG:AA:[N P]:[Data] QSG:AA:N	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Matrix (B-G)_P	OSG:AA:P:[Data] OSG:AA:[N P]:[Data] QSG:AA:P	00h - 1Fh - 3Eh	-31 - 0 - +31									0							
Skin Area SW	OSG:B0:[Data] QSG:B0	0 1	Off On									0							
Skin Area Table	OSG:B1:[Data] QSG:B1	0 1 01h	A B -127									0							
Skin Area Hue	OSG:B2:[Data] QSG:B2	– 80h – FFh	- 0 - +127									<u> </u>							
Skin Area Tone	OSG:B3:[Data] QSG:B3	01h _ 80h _ FEh	-127 - 0 - +126									0							
DNR Level	OSG:B5:[Data] QSG:B5	1 - 5	1 - 5	0								0							
Haze Reduction	OSG:B6:[Data] QSG:B6	0	Off On								0	0							

ITEM	Command Control / Response /	Data	Data Contents Control and	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Haze Reduction Level	Confirmation OSG:B7:[Data] QSG:B7	1 - 2	Response to contol 1 - 3								0	0							-
Genlock Input	OSG:CA:[Data] QSG:CA	0 1	BNC DSUB									0	 						
	OSG:CB:[Data]	3h	-5 -									0							-
H Phase-Coarse	QSG:CB	8h - Dh	0 - +5																
		1Ch -	-100 -									0							
H Phase-Fine	OSG:CC:[Data] QSG:CC	80h - E4h	0 - +100																
		0h 1h	0ff 1/50								*		*	*	*	*	*	* *	
Shutter	OSH:[Data] QSH	2h 3h 4h 5h 6h 7h 8h 9h Ah Bh Ch Dh Eh	1/60 1/100 (NSTC) . 1/120 (PAL) 1/120 (NTSC) . 1/100 (PAL) 1/250 1/500 1/1000 1/2000 1/4000 1/10000 Synchro-Scan ELC (Auto ND) 1/24 1/25 1/30																
		[Data1] 01	[Data1] Left Max. Speed	0			0	0		○ (UE150) (HE145)		0							
Crop H/V Position Speed Control	OSI:15:[Data1]:[Data 2]	- 50 - 99 [Data2] 01 - 50 - 99	Stop Right Max. Speed [Data2] Down Max. Speed Stop UP Max. Speed																
Crop Out	OSI:16:[Data] QSI:16	1 2	YI G	0			0	0		O (UE150) (HE145)		0							_
	OSI:17:[Data]	1 2	Mg YI G	0			0	0		O (UE150) (HE145)		0	 						
Crop Adjust	QSI:17	3 [Data1]	Mg [Data1]Zoom Position							(IIL140)		0							
Request Zoom/Focus/Iris Position	QSI:18 OSI:18:[Data1]:[Data 2]:[Data3]	[Data1] 555h - FFFh [Data2] 555h - FFFh [Data3] 555h - FFFh	Wide Tele [Data2]Focus Position Near Far [Data3]Iris Position Close Open																
Software Version	QSI:19:[Data1] OSI:19:[Data1]:[Data 2]	[Data1] 0 1 2 3 4 5 6 [Data2] (Ver. String)	[Data1] System Version Cam Main Network ROM Table Cam FPGA AVIO FPGA Option FPGA [Data2] (ex) 01.00-000-00.00		-							0							-
Crop Marker	OSI:1A:[Data] QSI:1A	0 1 2 3 4 5 6 7	Off YI G Mg YI+G YI+Mg G+Mg YI+G+Mg	O			0	O		○ (UE150) (HE145)		supports only 1 (YI) 2 (G) 3 (Mg) 4 (YI+G) 5 (YI+Mg) 6 (G+Mg) 7 (YI+G+Mg)							-
Crop H Position	OSI:1B:[Data] QSI:1B	738h - 800h - 8C8h 738h	-50% - 0% - +50% (0. 25% step) -50%									0							-
Crop V Position	OSI:1C:[Data] QSI:1C	- 800h - 8C8h	-50% - 0% - +50% (0. 25% step)																
Auto Iris Level	OSI:1D:[Data] QSI:1D	00h - 64h	0 - 100									0							-
Color Temperature Inc	OSI:1E:[Data]	1h - Ah	Inc 1 - Inc 10	0	0		0	0		0		supports only 1h(Inc 1)							-
Color Temperature Dec	+	1h -	Dec 1	0	0		0	0		0		supports only 1h(Dec 1)							
D00	1	Ah	Dec 10	<u> </u>	1						<u> </u>	<u> </u>	<u> </u>		<u> </u>		I	<u> </u>	

ITCM	Command	Da+a	Data Contents											1			T		
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		[Data1] 00000h	[Data1] OK	on l y	[Data1] supports only		only	[Data1] supports -		[Data1] supports only		supports only Confirmation							
	OSI:20:[Data1]:[Data	- FFFFFh	- 1048575K	007D0h (2000K) -	007D0h (2000K) -		007D0h (2000K) -	007D0h (2000K) -		007D0h (2000K) -		Command							
Color Temperature	2] QSI:20	[Data2] Oh	[Data2] Valid		03A98h(15000K) [Data2] supports			03A98h(15000K) [Data2] supports		03A98h(15000K) [Data2] supports									
		1h 2h	Under Over	only O(valid)	only 0(valid)		only O(valid)	only 0(valid)		only O(valid)									
	OSI:21:[Data]	0	Off								0							 	
Intelligent	QSI:21	1 2	0n Lock																
Intelligent Mode	OSI:22:[Data] QSI:22	1	AE AE+ATW						·		0								
Intelligent	OSI:23:[Data]	1	Through 1/8						- -		0								
ND Filter	QSI:23	3	1/64 Auto																
Intelligent	OSI:24:[Data]	0	Normal								0								
AGC Mode	QSI:24	2	Sports SN								0								
ATW Speed	OSI:25:[Data] QSI:25	1	Normal Slow Fast	O							O								
		1 2	1 2								0								
ATW Width	OSI:26:[Data] QSI:26	3	3																
	301.20	5	5																
Super Gain	OSI:28:[Data] QSI:28	0	Off On		0		0	-		0	0							 	
3G SDI 3G SDI Out	OSI:28 OSI:29:[Data] QSI:29	0	Level A Level B	0	O (UE80, UE50) (UE40)		0	0 -		0	0								
2 52 540		[AK-UB300] 0	[AK-UB300] no option									0							
Option Device Type	QSI:2A OSI:2A:[Data]	1 2	4K default																
		3	12G option TICO option																
DC Out	OSI:2B:[Data] QSI:2B	0	Off On								0								
HDR SW (MAIN)	OSI:2C:[Data] QSI:2C	0	Off On	0								0							
Colormetry	OSI:2D:[Data] QSI:2D	00h 01h	no effect BT. 709									0							
HDR SW (SDI1)	OSI:2E:[Data] QSI:2E	0	Off On									0							
HDR SW (LAN)	OSI:2F:[Data] QSI:2F	0 1	Off On					Ī Ī-				0						Ī	
		0 1	Normal High Sens.	0				-		0		0						Ī	
Shooting Mode	OSI:30:[Data] QSI:30	<u>UE160</u>																	
	QS1.30	0 1	<u>UE160</u> Normal Low Light																
HDR SW (SDI2)	OSI:31:[Data]	0	Off									0		 					
Crop	QSI:31 OSI:32:[Data]	<u>1</u> 0	On Full	0			0	0 -		O (UE150)		0							
SDI2/3G SDI Out Crop IP Out	QSI:32 OSI:33:[Data]	0	Crop Full	0			0	0 -		(HE145) O (UE150) (HE145)		0						 	
IP Out	QSI:33	1 05DCh	Crop 0. 1500					 		(HE145) 		0						 	
Master Gamma	QSI:34 OSI:34:[Data]	- 1194h	- 0. 4500																
mas cor aanma	OSI:34:[Data]	1D4Ch	0. 7500																
		35h	-75	0				 		 		0						 	
R Gamma	OSI:35:[Data] QSI:35	- 80h	0																
	431.33	- CBh	- +75																
		35h _	-75 -	0								0							
B Gamma	OSI:36:[Data] QSI:36	80h -	0 -																
Monto: O	001.07.50-4-3	CBh	+75															1	
Master Gamma Inc Master Gamma Dec	OSI:38:[Data]	1	Inc Dec									0						-	
HLG Mode (HDR Paint) SDR Convert Mode	OSI:39: [Data] QSI:39 OSI:3A: [Data]	1	Fix Var	0								0							
(HDR Paint) HLG Type Select	OSI:3A OSI:3R:[Data]	1	Fix Var Normal	O 														- -	
(HDR Paint) Black Gamma SW	OSI:3B: [Data] OSI:3C: [Data]	1	Stretch Off	0					·			0							
(HDR Paint)	QSI:3C	1 60h	0n -32	0								0							
Master Black Gamma	OSI:3D:[Data]	- 80h	- 0																
(HDR Paint)	QSI:3D	_ A0h	- +32																
		60h	-32	0								0							
R Black Gamma	OSI:3E:[Data]	- 80h	_ _ 0																
(HDR Paint)	QSI:3E	– A0h	- +32																
		60h	-32	0				-		 		0							
B Black Gamma	OSI:3F:[Data]	– 80h																	
(HDR Paint)	QSI:3F	– A0h	- +32																
Knee SW (HDR Paint)	OSI:40:[Data]	0	Off On	0						0		0						 	
(HDR Paint)	QSI:40	1	<u>On</u>	<u> </u>		<u> </u>	<u> </u>	1 1		<u> </u>		<u> </u>	<u> </u>	<u> </u>	1		1	1	

ITEM	Command Control / Response /	Data	Data Contents Control and			Т													
116	Confirmation	1Ch	Response to contol 55.00%	UE160 suppurt only	UE80/UE50/UE40 	UE20/HE20	UR100	UE100	UE4	UE150/HE145 suppurt only	HR140	UB300 suppurt only	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		- 30h	-	30h (60%) - D0 (100%)						1Ch (55%) - D0 (100%)		30h (60%) - D0 (100%)							
Knee Point	OSI:41:[Data]	– 80h	- 80. 00%							(1step=1%)									
(HDR Paint)	QSI:41	– D0h	100.00%																
		- F4h	- 109.00% (1step=0.25%)																
		00h	0	0						supports only		0							
Knee Slope (HDR Paint)	OSI:42:[Data] QSI:42	_ C7h	_ 199							00h - 64h									
		7 4 h -	-12 -	supports only 74h(-12)-7Bh(-5),								supports only 74h(-12), 77h(-						 	
SDR Convert Gain (HDR Paint)	OSI:43:[Data] QSI:43	80h	0	80h (0)								9), 7Ah (-6), 7Dh (-3), 80h (0)							
SDR Convert Clip (HDR Paint)	OSI:44:[Data] QSI:44	0 1 2	Low Mid High									0							
		0000000h 0000001h 0000002h	No Error Fan Error High Temperature	O	O		O	O		O									
	001.40	0000002H 0000004h 0000008h	Lens Error Pan/Tilt Error																
Error Information	QSI:46 OSI:46:[Data]	0000010h	Sensor Error																
		0	Slow Normal	0	0		0	0		0									
Auto Iris Speed	OSJ:01:[Data] QSJ:01	2 <u>UE160</u>	Fast <u>UE160</u>																
Auto 1118 Speed	QSJ:01	0 1	1 2																
		2	3																
		0 1	Normal1 Normal2	0	0		0	0		0									
		<u>UE160</u>	Center <u>UE160</u>																
Auto Iris Window	OSJ:02:[Data] QSJ:02	1 2	1 2																
		3 4	3 4																
		5 0h	5 Off			supports only			supports only										
Shutter Mode	OSJ:03:[Data] QSJ:03	1h 2h	Step Synchro			supports only 0(Off) 1(Step) 2(Synchro)	O		supports only 0(Off) 1(Step)										
	450.00	3h 01h	ELC	0		2(Synchro)			0										
Shutter Step Inc	OSJ:04:[Data]	- 64h	100																
Shutter Step Dec	OSJ:05:[Data]	01h -	1	0	0	0	0	0	0	0									
		64h 0001h	100	supports only	supports only	0	supports only	supports only	0	supports only									
Shutter Step Value	OSJ:06:[Data]	– 2710 h	- 1/10000	0030h (1/48) -	0018h (1/24) -		_	0018h (1/24) -		supports only 0018h(1/24) -									
Shutter Step Value	QSJ:06	– 3E80h	- 1/16000	07D0h (1/2000)	2710h (1/10000)		2710h (1/10000)	2710h (1/10000)		2710h (1/10000)									
Charthau Carabas Isa	05 1:07:[Data]	01h _	1	0	0	0	0	0		0								 	
Shutter Synchro Inc	USU. U7 . [Data]	64h 01h	100	0	0		0	0											
Shutter Synchro Dec	OSJ:08:[Data]	- 64h	100																
	06 1:00 : [D-+-]	00000h -	0.0 [Hz] -	supports only 000F0h(24.0Hz)	supports only 000F0h(24.0Hz)	supports only 001F4h(50.0Hz)	supports only 000F0h(24.0Hz)	supports only 000F0h(24.0Hz)		supports only 000F0h(24.0Hz)									
Shutter Synchro Valu	QSJ:09	186A0h	10000.0[Hz]	-	- 119940 (7200. 0Hz)	_	_	-		- 119940 (7200. OHz)									
	00 1:00:00-4-3	61h -	-31 -		0		0	0		0									
Chroma Phase	OSJ:OB:[Data] QSJ:OB	80h -	0 -																
AWB Gain Offset	OSJ:0C:[Data] QSJ:0C	9Fh 0	+31 Off	0	0		0	0		0									
JAND GAIN ONSEL	QSJ:0C	1 76h	On -10	0	0		0	0		0									
ATW Target R	OSJ:OD:[Data] QSJ:OD	- 80h -	0																
	455.45	- 8Ah	+10																
	0S.I:0F:[Data]	76h - 20b	-10 -	0	0		0	0		0									-
ATW Target B	OSJ:OE:[Data] QSJ:OE	80h - 8 A h	+10																
		738h	-200	0	0	supports only 7F6h(-10)	0	0		0			<u> </u> 						
Master Pedestal	OSJ:OF:[Data] QSJ:OF	- 800h -	0 -			/F6h (-10) - 80Ah (10)													
		8C8h	+200			00/iii (10/													

	Command		Data Contents	1															
ITEM	Control / Response / Confirmation	/ Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		032h -	-100 -				0	0		0									
G Pedestal	OSJ:10:[Data] QSJ:10	096h - 0FAh	0 - +100																
Pedestal Offset	OSJ:11:[Data] QSJ:11	0	Off On	0			0	0 -		0			 						
Detail Coring	OSJ:12:[Data] QSJ:12	00h - 3Ch	0 - 60		0		0	0		0									
	001:10:50 1 3	79h -	-7 -				0	0 -		0									
Level Depend.	OSJ:13:[Data] QSJ:13	80h - 87h	0 - 7																
Down Convert Detail	OSJ:14:[Data] QSJ:14	0 1	Off On	0						O (UE150) (HE145)									
Down Convert Master Detail	OSJ:15:[Data] QSJ:15	61h - 80h - 9Fh	-31 - 0 - +31	0						O (UE150) (HE145)									
Down Convert Detail Coring	OSJ:16:[Data] QSJ:16	00h - 3Ch	0 - 60							O (UE150) (HE145)									
Down Convert V Detail Level	OSJ:17:[Data] QSJ:17	79h - 80h - BFh	-7 - 0 - +63	supports only 00h(00) - BFh(+63) (UE150)						supports only 79h(-7) - 87h(+7) (UE150) (HE145)									
Down Convert Detail Frequency	OSJ:18:[Data] QSJ:18	7Eh - 80h - 82h	-2 - 0 - +2							O (UE150) (HE145)									
Down Convert Level Depend.	OSJ:19:[Data] QSJ:19	79h - 80h - 87h	-7 - 0 - +7							O (UE150) (HE145)									
Down Convert Knee Ape Level	OSJ:1A:[Data] QSJ:1A	00h 01h 02h 03h 04h 05h	0 1 2 3 4 5							O (UE150) (HE145)									
Black Gamma Range	OSJ:1B:[Data] QSJ:1B	1 2 3	1 2 3	0			0	0		0									
Color Correction YI_YI_G Saturation	OSJ:1C:[Data] QSJ:1C	41h - 80h - BFh	-63 - 0 - 63		0		0	0		0									
Color Correction YI_YI_G Phase	OSJ:1D:[Data] QSJ:1D	41h - 80h - BFh	-63 - 0 - 63		0		0	0		0									
12G SDI/Optical Out Output Format	OSJ:1E:[Data] QSJ:1E	01h 02h 04h 05h 07h 08h 0Ah 10h 11h 14h 15h 16h 17h 18h 19h 1Ah 1Bh 1Fh 20h 21h 22h	720/59.94p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/50p 1080/50p 1080/50p 1080/29.97p 1080/25p 1080/25p 1080/25p 2160/29.97p 2160/25p 2160/50p 2160/50p 2160/50p 2160/60p 1080/60p 1080/60p 2160/24p 1080/23.98p	UE160 doesn't support 07h 1080/29.97PsF 08h 1080/25PsF 0Ah 1080/23.98PsF 16h 1080/23.98p (over 59.94i/p)			UE100 doesn't supports 1Fh 2160/60p 20h 1080/60p	UE100 doesn't supports 1Fh 2160/60p 20h 1080/60p		UE150 doesn't supports 1Fh 2160/60p 20h 1080/60p (HE145)									
12G SDI/Optical Out HDR Output Select	OSJ:1F:[Data] QSJ:1F	0h 1h 2h	SDR HDR (2020) HDR (709)	0						O (UE150) (HE145)									
	OSJ:20:[Data] QSJ:20	0h 1h	Level A Level B	0			0	0 -		O (UE150) (HE145)									
od opi Out	400.20																		

	Command		Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
3G SDI Out Output Format	OSJ:21:[Data] QSJ:21	01h 02h 04h 05h 07h 08h 0Ah 10h 11h 14h 15h 16h 20h 22h	720/59.94p 720/50p 1080/59.94i 1080/59.94i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/59.94p 1080/50p 1080/29.97p 1080/25p 1080/23.98p (over 59.94i/p) 1080/60p 1080/24p 1080/23.98p	UE160 doesn't support 07h 1080/29.97PsF 08h 1080/25PsF 0Ah 1080/23.98PsF 16h 1080/23.98p (over 59.94i/p)			UE100 doesn't support 20h 1080/60p	UE100 doesn't support 20h 1080/60p		UE150 and HE145 don't support 20h 1080/60p									
3G SDI Out HDR Output Select	OSJ:22:[Data] QSJ:22	0 1 2	SDR HDR(2020) HDR(709)	0						0									
MONI Out Output Format	OSJ:23:[Data] QSJ:23	01h 02h 04h 05h 07h 08h 0Ah 14h 15h 16h 20h 22h	720/59.94p 720/50p 720/50p 1080/59.94i 1080/50i 1080/29.97PsF 1080/25PsF 1080/23.98PsF 1080/29.97p 1080/25p 1080/23.98p (over 59.94i/p) 1080/60p 1080/24p 1080/23.98p	UE160 doesn't support 07h 1080/29.97PsF 08h 1080/25PsF 0Ah 1080/23.98PsF 16h 1080/23.98p (over 59.94i/p)						UE150 doesn't supports 20h 1080/60p (HE145)									
MONI Out HDR Output Select	OSJ:24:[Data] QSJ:24	0 1 2	SDR HDR(2020) HDR(709)	0						○ (UE150) (HE145)									
HDMI Out Output Format	OSJ:25:[Data] QSJ:25	01h 02h 04h 05h 10h 11h 14h 15h 16h 17h 18h 19h 1Ah 1Bh 1Fh 20h 21h 22h 23h 26h 27h	720/59,94p 720/50p 1080/59,94i 1080/59,94i 1080/59,94p 1080/50p 1080/29,97p 1080/23,98p(over 59,94i/p) 2160/29,97p 2160/25p 2160/50p 2160/50p 2160/60p 1080/60p 1080/60p 2160/24p 1080/23,98p 1080/119,88p 1080/100p	UE160 doesn't support 16h 1080/23.98p (over 59.94i/p)	UE80 doesn't supports 1Fh 2160/60p 20h 1080/60p 26h 1080/119.88p 27h 1080/100p UE50 does't support 19h 2160/50p 1Fh 2160/60p 20h 1080/60p 20h 1080/119.88p 27h 1080/100p UE40 does't support 16h 1080/23.98p(over 59.94i/p) 19h 2160/50p 1Fh 2160/60p 20h 1080/60p 20h 1080/60p 20h 1080/60p 20h 1080/60p 20h 1080/119.88p 27h 1080/100p			UE100 doesn't supports 1Fh 2160/60p 20h 1080/60p 26h 1080/119.88p 27h 1080/100p		UE150 doesn't supports 1Fh 2160/60p 20h 1080/60p 26h 1080/119.88p 27h 1080/100p HE145 doesn't support 17h 2160/29.97p 18h 2160/25p 19h 2160/50p 18h 2160/23.98p 1Fh 2160/60p 20h 1080/60p 21h 2160/24p 26h 1080/119.88p 27h 1080/100p									
HDMI Out HDR Output Select	OSJ:26:[Data] QSJ:26	0 1 2	SDR HDR(2020) HDR(709)	0						0									
Color Bar Tone	OSJ:27:[Data] QSJ:27	0 1 2 <u>UE160</u> 0 1	Off Low Normal UE160 Off On	0	0		0	0		0									
Toutch AF	OSJ:28:[Data1]:[Data 2]	[Data1] 00h - 64h [Data2] 00h - 64h	[Data1]H Position 0% - 100% [Data2]V Position 0% - 100%																
Preset Speed Unit	OSJ:29:[Data]	0	Speed Table Time	0	0		0	0		0									
Preset Grop	QSJ:29 OSJ:2A:[Data]	0	Off	0			0	0		O (UE150) (HE145)				<u> </u>					
Preset Thumbnail	QSJ:2A OSJ:2B:[Data]	0	On Off	0	0 -		0	0						 					
Update	QSJ:2B OSJ:2C:[Data]	0	On Reset	0	0		0	0		0									
Preset Name P/T Speed Mode	QSJ:2C OSJ:2D:[Data] QSJ:2D	0 1 2 0 1 2	Hold UE160, UE100 Normal Fast1 Fast2 UE150 Normal Fast Quick Off	0	0		0	0		O (UE150)									
UHD Crop	OSJ:2E:[Data] QSJ:2E	1 2	Oπ Crop(1080) Crop(720)							(HE145)									

ITEM	Command Control / Response /	Data	Data Contents Control and		I		1 1			I	I		T	T	l	T	1		
	Confirmation	000h	Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4 	UE150/HE145 UE150 supports	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		– 780h	_ 1920	(1step=2pix)						only 000h(0)									
Crop H Position (YI)	OSJ:2F:[Data]	– A00h	_ 2560							A00h (2560)									
0.00	QSJ:2F	C00	3072							(1step=2pix) HE145 doesn't									
										support									
		000h -	0 -	0			0	0		UE150 supports									
	OSJ:30:[Data]	438h -	1080							000h (0) -									
Crop V Position (YI)	QSJ:30	5A0h -	1440							5A0h (1440)									
		6C0	1728							HE145 doesn't support									
		000h -	0 -	O (1step=2pix)			0	0		UE150 supports									
		780h -	1920 -	(1000) 2511/						000h (0) -									
Crop H Position (G)	OSJ:31:[Data] QSJ:31	A00h -	2560 -							A00h(2560) (1step=2pix)									
		C00	3072							HE145 doesn't									
		000h	0	0			0	0		Support UE150 supports									
		- 438h	- 1080					<u> </u>		only 000h(0)									
Crop V Position (G)	OSJ:32:[Data] QSJ:32	- 5A0h	1440							5A0h (1440)									
	400.02	- 6C0	- 1728							HE145 doesn't									
		0001-						0		support									
		000h - 780h	0 - 1920	(1step=2pix)						UE150 supports only 000h(0)									
Crop H Position (Mg)	OSJ:33:[Data]	– A00h								I-									
Grop H Position (Mg)	QSJ:33	_ C00	- 3072							A00h(2560) (1step=2pix)									
										HE145 doesn't support									
		000h _	0 _	0			0	0		UE150 supports									
	00 1: 24: [D-+-]	438h -	1080 -							000h (0)									
Crop V Position (Mg)	QSJ:34 [Data]	5A0h -	1440 -							6C0h (1728)									
		6C0	1728							HE145 doesn't support									
		[Data1] 00	[Data1] Preset001	[Data2]	[Data2] use only follow charactors A-7 a-7 1-9		[Data2] use only follow	[Data2] use only follow		[Data2] use only follow									-
	OSJ:35:[Data1]:[Data	_	- Preset100	charactors A-Z, a-z, 1-9,	charactors A-Z, a-z, 1-9,		charactors	charactors A-Z, a-z, 1-9,		charactors A-Z, a-z, 1-9,									
Save Preset Name	2] QSJ:35:[Data1]	[Data2] xxxxxxxxxxxxxx	[Data2] Preset Name (Fixed 15 Charactors)	_, Half-Width	_, Half-Width Space		_, Half-Width	_, Half-Width Space		_, Half-Width Space									
		[Data] 00	[Data] Preset001	0	0		0	0		0									-
Delete Preset Name (Single)	OSJ:36:[Data]	_ 99	Preset100																
Delete Preset Name	0SJ:37	-		0	0		0	0		0									
(All)		[Data] 00	[Data] Preset001	0	0		0	0		0									
Update Preset Thumbnail	OSJ:39:[Data]	- 99	Presettuu I - Preset100																
	 	[Data]	[Data]	0	0		0	0		0									
Delete Preset Thumbnail (Single)	OSJ:3A:[Data]	00 -	Preset001 -																
		99	Preset100		0			0		0									
Thumbnail (All)	OSJ:3B	_ [Data1]	[Data1]	0	0		0	0		0									
		00h 01h	Preset 001-009 Preset 010-018					-											
		02h 03h	Preset 019-027 Preset 028-036																
		04h 05h 06h	Preset 037-045 Preset 046-054 Preset 055-063																
	: QSJ:3C:[Data1] OSJ:3C:[Data1]:[Data	06h 07h 08h	Preset 064-072																
Counter	2]	08h 09h 0 A h	Preset 073-081 Preset 082-090 Preset 091-099																
		OBh [Data2]	Preset 100 [Data2]																
		00000000h -	00000000h -																
		FFFFFFFFh	FFFFFFFh																
Zoom Scale	QSJ:3D OSJ:3D:[Data]	000h - 357b	0 -	O	O		O	U		0									
	OSJ:3E:[Data]	3E7h xxxxxxxx	999 Any Information (40 Charactors)	0	0		0	0		0					 				
Release Operation	OSJ:3E:[Data]	-		0	0		0	0		0					 				
Lock	000.01		<u> </u>	Ĺ		<u> </u>				<u> </u>	<u> </u>	1		<u> </u>	<u> </u>	<u> </u>	<u> </u>		

Second S		Command		Data Contents																
Second Column Col	ITEM Con	ntrol / Response / Confirmation	Data		UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
The contract of the contract o			[Data1] 0		0	0		0	0	0	-									
Part	ion Lock Status 0SJ 2]	J:40 J:40:[Data1]:[Data		Lock [Data2]																
Second			0	R-Tally	0	0 (0ff), 1 (R-			0 (0ff), 1 (R-	0((0ff), 1 (R-									
Control Cont	nal Output 1 QSJ	J:41:[Data] J:41	2 3			(UE80, UE50)			Tally), 2(G-Tally)	Ta	ally), 2 (G-Tally)									
Section Sect						(UE40)														
March Marc			0		0	supports only			supports only	su	upports only -									
March Marc			2 3	G-Tally		Tally), 2(G-Tally)			Tally), 2 (G-Tally)	Ta	ally), 2 (G-Tally)									
The state of the s	. 020	J . 42																		
The fact of the control of the contr			0		0			0		0) -								 	
Marchane Mar			1 2	Home		2 (Home)			2 (Home)											
The state of the s			00		0	O (Preset)		0	O	O)								-	
MAR SEARCH AND SEARCH				-																
THE	olor	1,40,50 : 3		1 -	0			0	0	0	-								-	
Marie Mari		J:48:[Data]																		
STORING STORIN		J:49:[Na+a]	-		0			0	0	0	-									
1	rature Dec	v. 70 · [vata]				0 (0														
## 14 14 15 15 15 15 15 15			007D0h	2000K	o Valid	O(Query Unly)		O	0	0	-									
Column C		J:4A:[Data1]:[Data	03A98h	15000K																
AME 9 Case Fig. Fi	Temp ACH QSJ	J:4A	[Data2] 0 1	Valid																
MAR F CO. 1 MAR F			2																	
AND 9 GL - 190 - 100 - 1				-400 -	0			0	0	0	-									
AND EL GAME DE LA COMPANIA DEL COMPANIA D			_	0 –																
Marie Build Build Marie Build																				
AND DATE OF THE PROPERTY OF TH	00.1	1: 40: [D-+-]	-	-400 -	0			0	0	0	-									
AFRE D. According 1987 1988 1989	Gain QSJ	J:4C:[Data] J:4C	_	0 - 400																
ANTI D. ANTI D					0			0	0	0	<u> </u>									
Single S	0SJ	J:4D:[Data]	_		O					Ĭ										
Digital Extended School Color	QSJ QSJ	J:4D	_	400																
Sale Part Sale Part		+	0	Off	0	0	0	0	0	O) -									
Comparison Com	Extender QSJ	J:4E:[Data] J:4E	1 2	x1. 4 x2. 0																
Treching Date Output \$3.151 (Data) 0 0ff 0 0 0ff 0 0 0 0	/e Matrix OSJ	J:4F:[Data]	0	Off On		0		0	0	0	-									
Tracking plase Output (SS-155: [Data]) PO cit (SS-155: [Data]) PO cit (SS-155: [Data]) SS-155: [Data] SS-155: [ng Data Output OSJ	J:54:[Data]	0	Off	0	O (UE80)		0	0	O	(UE150) (HE145)									
Color Setting SSJ-58 (1981a) 0 Normal O	ng Data Output OSJ	J:55:[Data]	0	0ff	0	O (UE80)		0	0	0	(UE150) -									
126 SDI/Optical Out 053-57; [Data] 0	Setting OSJ QSJ	J:56:[Data] J:56	0 1	V-Log	0					O 	(UE150) (HE145)									
V-Log Updated Refer 1	OI/Optical Out OSJ Output Select QSJ	J:57:[Data] J:57	0 1	V-709	0					O	(UE150) (HE145)									
V-Log Output Select DSJ:58: Data D	Out OSJ Output Select QSJ	J:58:[Data] J:58	0 1	V-709	0					O 	(UE150) (HE145)									
V-Log Output Select SSJ: 58: Data Data SSJ: 58: Data Data	Output Select QSJ	U.59:[Data] J:59	0 1	V-Log V-709	0					<u> </u> 0 	(HE145)									
Comera Title OSJ:50: [Data1] NXXXXXXXX	Output Select QSJ	J:5A J:5B:[Data]	1 0	V-709 Off	0	0		0	0	lo	(HE145)									
OSJ:5C	QSJ — QSJ	J:5B J:5C:[Data]	1 xxxxxxxx	On Camera Title (Fixed 40	0	0		0	0	lo) -								-	
Crop H/V Position Speed Control (YI) OSJ:5D: [Data1]: [Data 2] [Data2] [Data2] Down Max. Speed	a litle QSJ	J:50	[Data1]	Charactors : ASCII CODE)	0			0	0	0) (UE150) -									
Crop H/V Position Speed Control (YI) OSJ:5D: [Data1]: [Data 2] [Data2] [Data2] [Data2] [Down Max. Speed Control (YI) [Data2] [Down Max. Speed Control (YI) [Down Max. Speed Control (YII) [Do			01 -	-							(HE145)									
OSJ:5D: [Data1]: [Data Speed Control (YI)			_	-																
Down wax. Speed	/V Position OSJ	J:5D:[Data1]:[Data																		
	2]		[Data2] 01 -	Down Max. Speed																
50 Stop			- 50 -	Stop																
99 UP Max. Speed			99																	

	Command		Data Contents	T															
ITEM	Control / Response / Confirmation	Data	Control and	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	CONTITUIALION	[Data1]	Response to contol [Data1]	0			0	0		O (UE150)									
		01 _ 50	Left Max. Speed							(HE145)									
		50 -	Stop - Dight May Cared																
Crop H/V Position Speed Control (G)	OSJ:5E:[Data1]:[Data	99	Right Max. Speed																
(G)	2]	[Data2] 01	[Data2] Down Max. Speed																
		_ 50	Stop																
		99	UP Max. Speed																
		[Data1]	[Data1]	0			0	0		O (UE150) (HE145)									
		01 _ 50	Left Max. Speed - Stan							(RE145)									
		50 -	Stop - Dight May Speed																
Crop H/V Position Speed Control (Mg)	OSJ:5F:[Data1]:[Data	99	Right Max. Speed																
(Mg)	2]	[Data2] 01	[Data2] Down Max. Speed -																
		- 50 -	Stop																
		99	UP Max. Speed																
		[Data1] 000h - C00h	[Data1] H Position (YI) 0 - 3072	0			0	0		UE150 [Data1, 3, 5]									
		000h – C00h [Data2] 000h – 6C0h	0 - 3072 [Data2] V Position (YI) 0 - 1728							H Position(YI, G, Mg)									
		000h – 6C0h [Data3] 000h – C00h	D - 1728 [Data3] H Position (G) 0 - 3072							supports only									
		000h – C00h [Data4] 000h – 6C0h	D - 3072 [Data4] V Position (G) 0 - 1728							A00 (2560)									
Get Cron H/V Beattle	QSJ:60:[Data1]:[Data n 2]:[Data3]:[Data4]:[000n – 6C0n [Data5] 000h – C00h	0 - 1728 [Data5] H Position (Mg) 0 - 3072							[Data2, 4, 6]									
(YI, G, Mg)	Data5]:[Data6] 0SJ:60	[Data6] 000h - 6C0h	[Data6] V Position (Mg) 0 - 1728							V Position (YI, G, Mg)									
	030.00	000n - 000n	0 - 1726							supports only 000h(0)									
										5A0 (1440)									
										HE145 doesn't									
										support									
Slow Shutter	OSJ:80:[Data] QSJ:80	0	Off On			0			0										
Mirror	OSJ:81:[Data] QSJ:81	0	Off On						0										
Languago	OSJ:82:[Data]	0	English Japanese			0			0										
Language	QSJ:82 OSJ:84:[Data]	2	Chinese 0ff																
LDC Manual Iris Close	QSJ:84	1	0n 0ff				0												
Limit	QSJ:90 OSJ:91:[Data]	1 0	On Off	0			0	0											
Crop AF	QSJ:91 OSJ:92:[Data]	1 0	On Off	0			0	0											
Crop Zoom Crop	QSJ:92 OSJ:93:[Data]	1 0	On Full	0			0	0											
NDI Out Crop	QSJ:93 OSJ:94:[Data]	1 0	Crop Full	0			0	0											
IP Out2	QSJ:94	<u>1</u> 02EE0h	Crop 120. 00%	0			0	0	<u> </u>										
Crop Zoom Ratio (YI)	OSJ:98:[Data] QSJ:98	_ 0C350h	_ 500. 00%																
Crop Zoom Ratio	OSJ:99:[Data]	02EE0h -	120.00%	0			0	0	<u> </u>										
(G) Crop Zoom Ratio	QSJ:99 OSJ:9A:[Data]	0C350h 02EE0h	500. 00% 120. 00%	0			0	0					 	 					
(Mg)	QSJ:9A.[Data]	_ 0C350h	- 500, 00%																
	1	[Data1] 02EE0h	[Data1] Zoom Ratio (YI) 120.00%	0			0	0											
		0C350h	500.00%																
Crop Zoom Ratio	OSJ:9B:[Data1]:[Data	[Data2] 02EE0h	[Data2] Zoom Ratio (G) 120.00%																
Crop Zoom Ratio (YI/G/Mg)	OSJ:9B:[Data1]:[Data 2]:[Data3] QSJ:9B	0C350h	_																
		[Data3] 02EE0h	500.00% [Data3] Zoom Ratio (Mg) 120.00%																
		_ 0C350h	- 500. 00%																
	 	01	Wide Max. Speed	0			0	0					<u> </u>						
0	00 1:00:50 : 3	- 49	- Wide Min. Speed																
Crop Zoom Ratio Speed Control	OSJ:9C:[Data] QSJ:9C	49 50 51	Stop Tele Min. Speed																
		99	- Tele Max. Speed																
	+	01	Wide Max. Speed	0			0	0											
Cron Zoom Ratio		49	Wide Min. Speed																
Crop Zoom Ratio Speed Control (YI)	OSJ:9D:[Data] QSJ:9D	50 51	Stop Tele Min. Speed																
(11)		_ 99	- Tele Max. Speed																
			1	1	1			1	1			I	I	I		J.	1		

ITEM	Command Control / Response / Confirmation	Data	Data Contents Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	OOTH TTIME ET OH	01	Wide Max. Speed -	0			0	0 -											
Crop Zoom Ratio Speed Control (G)	OSJ:9E:[Data] QSJ:9E	49 50 51 - 99	Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed																
		01	Wide Max. Speed	0			0	0 -				 							
Crop Zoom Ratio	OSJ:9F:[Data]	- 49 50	- Wide Min. Speed Stop																
Speed Control (Mg)	QSJ:9F	51 -	Tele Min. Speed -																
		99 [Data1]	Tele Max. Speed [Data1] (YI)	0			0	0 -		O (UE150)									
		01 - 50 - 99 [Data2] 01 - 50 - 99	Left Max. Speed - Stop - Right Max. Speed [Data2] (YI) Down Max. Speed - Stop							(HE145)									
		[Data3] 01 - 50 - 99	- UP Max. Speed [Data3] (G) Left Max. Speed - Stop																
Speed Control	OSJ:AO:[Data1]:[Data 2]:[Data3]:[Data4]:[Data5]:[Data6]	[Data4] 01 - 50 - 99	- Right Max. Speed [Data4] (G) Down Max. Speed - Stop																
(11/ u/ mg/	Dataoj.[Datao]	[Data5]	- UP Max. Speed [Data5] (Mg)																
		01 - 50 - 99 [Data6]	Left Max. Speed - Stop - Right Max. Speed [Data6] (Mg)																
		01 - 50 - 99	Down Max. Speed - Stop - UP Max. Speed																
		[Data1] 01 -	[Data1] (YI) Wide Max. Speed	0			0	0 -											
		49 50 51	Wide Min. Speed Stop Tele Min. Speed																
		- 99 [Data2] 01	- Tele Max. Speed [Data2] (G) Wide Max. Speed																
Crop Zoom Ratio Speed Control (YI/G/Mg)	OSJ:A1:[Data1]:[Data	- 49 50	- Wide Min. Speed																
(YI/G/Mg)	2]:[Data3]	51 -	Stop Tele Min. Speed -																
		99 [Data3] 01	Tele Max. Speed [Data3] (Mg) Wide Max. Speed																
		- 49	- Wide Min. Speed																
		50 51 -	Stop Tele Min. Speed -																
		99	Tele Max. Speed		(UF00)														
P/T Acceleration	OSJ:A2:[Data] QSJ:A2	0 1 00h	Manual Auto 0	0	○ (UE80) (UE50, UE40) ○ (UE80)		0	0 -											
T/T KTGG G GGTVG	OSJ:A3:[Data] QSJ:A3	– 1Eh	30	0	(UE50, UE40)														
P/T Fall S-Curve	OSJ:A4:[Data] QSJ:A4	00h - 1Eh	- 30	O	O (UE80) (UE50, UE40)														
P/T Rise Acceleration	OSJ:A5:[Data] QSJ:A5	01h - FFh	1 - 255	0	O (UE80) (UE50, UE40)		0	0 -											
P/T Fall Acceleratoin	OSJ:A6:[Data] QSJ:A6	01h -	1 -	0	O (UE80) (UE50, UE40)		0	0 -											
	OSJ:A7:[Data] QSJ:A7	FFh 0 1	255 Off On	0	0		0	0 -											
Preset Acceleration	OSJ:A8:[Data] QSJ:A8	0 1	Manua I Auto	0	O (UE80) (UE50, UE40)		0	0 -		0									
Preset Rise S-Curve	OSJ:A9:[Data] QSJ:A9	00h - 1Eh	- 30	O	O (UE80) (UE50, UE40)		0	-											
Preset Fall S-Curve	OSJ:AA:[Data] QSJ:AA	00h - 1Eh	0 - 30		O (UE80) (UE50, UE40)		0	0 -											
Preset Rise Acceleration		01h -	1 -	0	O (UE80) (UE50, UE40)		0	0 -		supports only 01h(1)-06h(6)									
Preset Fall Acceleration		FFh 01h -	255 1 -	0	O (UE80) (UE50, UE40)		0	0 -											
	+	FFh 01h	255 0. 1s	0	O (UE80) (UE50, UE40)		0	0 -											
	OSJ:AD:[Data] QSJ:AD	- 64h 01h	10. 0s 0. 1s	0	O (UE80) (UE50, UE40)		0	0 -											
	OSJ:AE:[Data] QSJ:AE	- 64h 000h	- 10. 0s	0	(UE50, UE40)		0	0											
Crop H Position	OSJ:AF:[Data] QSJ:AF	000n _ C00h 000h	0 - 3072	(1step=2pix)															
Crop V Position	OSJ:BO:[Data] QSJ:BO	000h - 6C0h	0 –	0			0	0											
Crop Zoom Ratio	OSJ:B1:[Data] QSJ:B1	02EE0h - 0C350h	1728 120. 00% - 500. 00%	0			0	0 -											
Auto Iris Close	OSJ:CO:[Data] QSJ:CO	0 1 2	500.00% Off F8 F7 F5.6 Off	0				-		0									
Tracking Data Output	OSJ:C1:[Data]	3 0 1	15. 6 Off On	0	O (UE80) (UE50, UE40)		0	0 -		O (UE150) (HE145)									
Output Invert Pan/Tilt Axis	QSJ:C1									,									

	Command		Data Contents	1															
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		[Data1] 01 - 50 - 99	[Data1]YL H Crop Position Left Max. speed - Stop	0			0	0											
		[Data2]	- Right Max. speed [Data2]YL V Crop Position																
		01 - 50 - 99	Down Max. speed - Stop - UP Max. speed																
		[Data3] 01 - 50 - 99	[Data3]G H Crop Position Left Max. speed - Stop																
		[Data4]	- Right Max. speed [Data4]G V Crop Position																
		01 - 50 - 99	Down Max. speed - Stop - UP Max. speed																
Crop Position/Crop	OSJ:C2:[Data1]:[Data	[Data5] 01 - 50 - 99	[Data5]MG H Crop Position Left Max. speed - Stop																
Speed Control	2]:[Data3]:[Data4]:[Data5]:[Data6]:[Data	[Data6]	- Right Max. speed [Data6]MG V Crop Position																
(YL/G/MG)	7]:[Data8]:[Data9]	01 - 50 - 99	Down Max. speed - Stop - UP Max. speed																
		[Data7] 01 - 50 - 99	[Data7] YL Crop Zoom Position Wide Max. speed - Stop																
		[Data8]	- Tele Max. speed [Data8] G Crop Zoom Position																
		01 - 50 - 99	Wide Max. speed - Stop - Tele Max. speed																
		[Data9] 01 - 50 - 99	[Data9] MG Crop Zoom Position Wide Max. speed - Stop																
			- Tele Max. speed																
	 	[Data1]	[Data1] H Position (YL)	0			0	0											
		000h - C00h [Data2]	0 - 3072 [Data2] V Position (YL)																
		000h - 6C0h [Data3]	0 - 1728 [Data3] H Position (G)																
		000h - C00h [Data4]	0 - 3072 [Data4] V Position (G)																
Request	OSJ:C3:[Data]	000h - 6C0h [Data5]	0 - 1728 [Data5] H Position (MG)																
Crop Position/ Crop Zoom Position	OSJ:C3:[Data] QSJ:C3	000h - C00h [Data6]	0 - 3072 [Data6] V Position (MG)																
		000h - 6C0h [Data7]	0 - 1728 [Data7] Zoom Ratio (YL)																
		02EE0h - 0C350h [Data8]	120.00% - 500.00% [Data8] Zoom Ratio (G)																
		02EE0h - 0C350h [Data9]	120.00% - 500.00% [Data9] Zoom Ratio (MG)																
	001:00:[0-+-]	02EE0h - 0C350h	120. 00% - 500. 00%																
Spotlight COMP. Flicker	OSJ:DO:[Data] QSJ:DO OSJ:D1:[Data]	1	Off On Off		0														
Suppression	QSJ:D1	1	On Through		O (UE80)														
ND Filter Status	OSJ:D2:[Data] QSJ:D2	1	1/4 ND		(UE50, UE40)														
	OSJ:D3:[Data]	3	1/16 ND 1/64 ND Off		(UE80)														
USB Mode	QSJ:D3 OSJ:D4:[Data]	1 0	On Off		O (UE50, UE40) (UE80)														
USB Auto Active	QSJ:D4 OSJ:D5:[Data]	1 0	On Off	0	O (UE50, UE40)		0												
Preset Shutter	QSJ:D5	1 [Data1]	On [Data1] Scene (From)		0			e:31											
		1 2	Scene1																
		3 4	Scene2 Scene3 Full Auto																
Scene Copy	OSJ:D6:[Data1][Data2]	[Data2]	[Data2] Scene (To)																
		1 2	Scene1 Scene2																
		3 4	Scene3 Full Auto																
	+	00	HD	supports only	0		0	 											
Gamma Mode	OSJ:D7:[Data]	01 02	Normal Cinema1	00 (HD), 01 (Nomal), 02 (Cinema1), 03 (Ci															
Ganina 111000	QSJ:D7	03 04	Cinema2 Still Like	nema2)															
AF Sensitivity	OSJ:D8:[Data] QSJ:D8	0	Normal Stable	0	0		0												
Tally LED Limit R	OSJ:D9:[Data]	1 0	Unlimited	0	0			0		0									
Tally LED Limit G	QSJ:D9 OSJ:DA:[Data]	0	Limited Unlimited	0	0			0		0									
Tally LED Limit B	OSJ:DB:[Data]	0	Limited Unlimited		(UE80)														
USB Auto Standby	QSJ:DB OSJ:DC:[Data]	0	Limited Off		O (UE50, UE40) (UE80)														
Video Conference	QSJ:DC OSJ:F3:[Data]	0	On Off		O (UE50, UE40) (UE80)														
Mode Tracking Data	QSJ:F3 OSJ:F4:[Data]	1 00h	0n 0x00	0	○ (UE50, UE40) 		0	0		O (UE150)									
Output Camera ID	QSJ:F4	FFh	OXFF							(HE145)									
SFP+ Mode	OSL:00:[Data] QSL:00	1	12G OUTPUT ST2110/NW IF ST2110 JPEG XS																
V-LOG Paint SW	OSL:01:[Data]	0	0ff	0															
	QSL:01 OSL:02:[Data] QSL:02	0	On Normal Wide 62	0															
Level Gauge	USL:02 OSL:03:[Data] QSL:03	0	Wide_G2 Off On	0															
Tally Guard	QSL:03 OSL:04:[Data] QSL:04	0	0n 0ff 0n	0															
Tally Led Limit Y	QSL:04 OSL:05:[Data] QSL:05	0	Unlimited	0															
Sync Ref Signal	OSL:08:[Data]	0	Limited BBS/TRI-LEVEL SYNC	0															
-, Not orginal	QSL:08	1	PTP	<u>. </u>	J	I	1	I	I	I	1	I	I	I	I	I	I	I	1

ITEM	Command Control / Response /	Data	Data Contents		т						T			Γ		ı			
TIEW	Confirmation	7Bh	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Sync Gen-Lock H	OSL:09:[Data]	- 80h	- 0																
Phase-Coarse	QSL:09	_ 85h	_ 5																
		1Ch	-100	0															
Sync Gen-Lock H Phase-Fine	OSL:OA:[Data] QSL:OA	_ 80h _	_ 0 _																
rnase-rine	QSL . UA	E4h	100																
Bar ID Brightness	OSL:OB:[Data] QSL:OB	00h -	0% _	0															
Bar ID ID1	OSL:OC:[Data]	64h 0	100%	0													<u> </u>		
Position V	QSL:0C	- 5	- 5																
Bar ID ID1 Position H	OSL:OD:[Data] QSL:OD	0h - Fh	0h - Fh																
Bar ID ID1	OSL:OE:[Data] QSL:OE	xxxxxxxx (32 DATA in ASCII CODE)	BAR ID (FIXED 16 CHARACTORS)	0															
Bar ID ID2 Position V	OSL:OF:[Data] QSL:OF	0 -	0 -	0															
Bar ID ID2	OSL:10:[Data]	5 0h	5 0h	0															
Position H	QSL:10 OSL:11:[Data]	Fh xxxxxxxx	Fh BAR ID	0															
Bar ID ID2	QSL:111 OSL:12:[Data]	(32 DATA in ASCII CODE) 00h	(FIXED 16 CHARACTORS)	0															
Bar ID Offset V	QSL:12	– 59h	- 89																
Bar Id Offset H	OSL:13:[Data] QSL:13	00h - 4Fh	0 - 70	O															
12G SDI Out/SFP+	OSL:14:[Data] OSL:14	0 1	Menu Only Status	0															
Output Item 3G SDI Out1 Output Item	QSI : 15	0	Menu Only Status	0															
3G SDI Out2/PM Output Select	OSL:17:[Data] QSL:17	0	Cam Return	0															
3G SDI Out2/PM Output Item 3G SDI Out2/PM 3G	OSL:18: [Data] QSL:18	0 1	Menu Only Status	0															
SDI	QSL:1A QSL:1A OSL:1B:[Data]	1 xxxxxxxx	Level-A Level-B RETURN ID	0															
Return ID	QSL:1B	(10 DATA in ASCII CODE) [Data1]	(FIXED 5 CHARACTORS) [Data1]	0			0												
Audio Input		0 1	Input1 Input2																
Audio Input Setting Input Select	OSL:1C:[Data] QSL:1C	[Data2] 0	[Data2] Line Mic																
		2	Mic+48V (Mic+Power)																
		[Data1] O	[Data1] Input1	0															
Audio Input Setting Mic Gain	OSL:1D:[Data] OSL:1D	1 [Data2]	Input1 Input2 [Data2] 60dB 40dB																
occing mio dain	402.10	0 1	60dB 40dB																
Audio Output Setting Ch Select	OSL:1E:[Data]	0	Input1/Input2 Input1	0															
Setting Ch Select	QSL:1E	2 01h	Input2 720/59. 94p	0															
		02h 10h	720/50p 1080/59, 94p																
		11h 14h	1080/50p 1080/29. 97p																
		15h 17h 18h	1080/25p 2160/29.97p 2160/25p																
NDI Format Select	OSL:21:[Data] QSL:21	19h 1 A h	2160/59. 94p 2160/50p																
		1Bh 1Fh	2160/23.98p 2160/60p 1080/60p																
		20h 21h 22h	1080/60p 2160/24p 1080/24p																
		23h	1080/23. 98p																
IP(H. 264/H. 265) Output Item	OSL:23:[Data] QSL:23	0 1	Menu Only Status	0															
		02h - -	−6dB −	0															
Gain	OSL:25:[Data] QSL:25	08h - 14h	0dB - 12dB																
400	OSL:26:[Data]	0	0ff	0															
AGC Frame Mix SW	OSL:26:[Data] QSL:26 OSL:27:[Data] QSL:27	1 0	On Off	0															
		1 06h 00h	0n +6dB	0															
Frame Mix	OSL:28:[Data] QSL:28	0Ch 12h 18h	+12dB +18dB +24dB																
		00h	0	0															
Iris Peak Ratio	OSL:29:[Data] QSL:29	- 64h	_ 100																
ATW	OSL:2A:[Data] QSL:2A	0 1	Off On	0															
	NSI : 2R: [Nata]	0 1 2	AWB A AWB B PRESET 3200K																
White Balance Mode	QSL:2B	3 4	PRESET 3200K PRESET 5600K VAR																
		<u> </u>		<u> </u>	_			1									1	1	1

Command		Data Contents																
ITEM Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Shockless WB SW OSL:2C:[Data] QSL:2C	0	Off On	0															-
Shockless WB Speed OSL:2D:[Data] QSL:2D	1	1 -	0															-
OSL:2E:[Data]	5 0	5 Off	0															-
Auto Snutter QSL:2E	<u>1</u> [Data1]	On [Data1]	0															
OSL:2F:[Data1]:[Data	007D0h -	2000K -																
Color Temp Bch 2] QSL:2F	03 A 98h [Data2]	15000K [Data2] Valid																
	0	Valid																
Color Temp Bch Inc OSL:30:[Data]	1h -	1 -	0															-
	<u>Ah</u> 1h	10	0															
Color Temp Bch Dec OSL:31:[Data]	– Ah	- 10																
	670h -	-400 -	0															-
Color Temp R Gain OSL:32:[Data] Bch QSL:32	800h -	0 -																
	990h	400																
	670h -	-400 -	0															-
Color Temp B Gain OSL:33:[Data] Bch QSL:33	800h -	0 -																
	990h	400																
	670h -	-400 -	0															
Color Temp G Axis OSL:34:[Data] Bch QSL:34	800h -	0 -																
	990h	400																
G Gain Rel Control OSL:35:[Data] Switch QSL:35	0 1	Off On	0															
	418h -	-1000 -	0															
RGB Gain Preset R OSL:36:[Data] Gain QSL:36	800h -	0 -																
	BE8h	1000																
	418h -	-1000 -	0															
RGB Gain Preset G OSL:37:[Data] Gain QSL:37	800h -	0 -																
	BE8h	1000																
	418h -	-1000 -	0															-
RGB Gain Preset B OSL:38:[Data] Gain QSL:38	800h -	0 -																
	BE8h	1000												<u>L</u> _				
	418h -	-1000 -	0															
RGB Gain R Gain OSL:39:[Data] Ach QSL:39	800h -	0 -																
	BE8h	1000																
	418h -	-1000 -	0															<u> </u>
RGB Gain G Gain OSL:3A:[Data] Ach QSL:3A	800h -	0 -																
	BE8h	1000																
	418h -	-1000 -	0															-
RGB Gain B Gain OSL:3B:[Data] Ach QSL:3B	800h -	0 -																
	BE8h	1000																
	418h -	-1000 -	0															-
RGB Gain R Gain OSL:3C:[Data] Bch QSL:3C	800h	0 -																
	BE8h	1000																
	418h -	-1000 -	0				<u> </u>											_
RGB Gain G Gain OSL:3D:[Data] Bch QSL:3D	800h -	0 -																
	BE8h	1000																
	418h -	-1000 -	0															_
RGB Gain B Gain OSL:3E:[Data] Bch QSL:3E	800h -	0 -																
	BE8h	1000																
RGB Gain Gain OSL:3F:[Data] Offset Bch QSL:3F	0	0ff 0n	0															-
	738h -	-200 -	0															
Master Flare OSL:40:[Data] QSL:40	800h -	0 -																
	8C8h	200																
	738h -	-200 -	0															-
R Flare OSL:41:[Data] QSL:41	800h	0 -																
	8C8h	200																
		-	<u>-</u>	_	•	•	. '	ı	l	•	•	•	•	•	•	•	. 1	

	Command		Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		738h	-200	0															
G Flare	OSL:42:[Data]	- 800h	0																
a i i ai o	QSL:42	– 8C8h	200																
		738h	-200	0	 		 										 		
	OSL:43:[Data]	– 800h	- 0																
B Flare	QSL:43	- 8C8h	200																
		01																	
Initial Gamma	OSL:44:[Data] QSL:44	8h 9h	4. 0 4. 5	O															
Knee	OSL:45:[Data]	<u>Ah</u> 0	5. 0 Off	0															
Knee Mode	QSL:45 OSL:46:[Data]	0	On Manua I	0	<u> </u>														
Kilee mode	QSL:46	1 71h	Auto -15%	0															
R White Clip Level	, OSL:47:[Data]	– 80h	_ 0%																
k white dip Level	QSL:47	– 8Fh	_ 15%																
		71h	-15%	0															
	OSL:48:[Data]	- 80h	- 0%	ľ															
B White Clip Level	QSL:48	- 8Fh																	
	001 : 40 : [0.4 - 7	OF 11		0														<u> </u>	
HI-Color	OSL:49:[Data] QSL:49	1	Off On	0															
HI-Color Level	OSL:4A:[Data] QSL:4A	01h -	-	O				-·											
DD0 700	001 : 40 : [0 - + -]	20h 1	32 1	0															
DRS Effect Depth	QSL:4B	- 5	- 5																
Detail Knee	OSL:4C:[Data] QSL:4C	00h -	00 -	0															
Dark Detail SW	OSL:4D:[Data]	0Fh 0	15 Off	0															
Dark Detail SW	QSL:4D	<u> </u>	0n 0	0	<u> </u>														
Dark Detail	OSL:4E:[Data] QSL:4E	- 7	7																
Down Convert Chroma Level SW	OSL:4F:[Data] QSL:4F	0	Off On	0														 	
om oma Lovel on	405.41	1Ch	-100% -	0															
Down Convert Chroma Level	OSL:50:[Data] QSL:50	80h	0%																
onrolla Level	Q3L . 30	A8h	40%																
Down Convert H	OSL:51:[Data]	80h	00	0															
Detail Level	OSL:51:[Data] QSL:51	BFh	63																
Down Convert Detail Peak	OSL:52:[Data] QSL:52	07Ch	12. 4MHz -	O															
Frequency Down Convert V	OSL:53:[Data]	173h 00h	37. 1MHz 00	0															
Detail Frequency	QSL:53	– 1Fh	- 31																
Down Convert Detail Crisp	OSL:54:[Data] QSL:54	80h -	00 -	0															
Down Convert	+	BFh 80h	63	0															
Detail Clip(+)	OSL:57:[Data] QSL:57	– BFh	- 63																
Down Convert	OSL:58:[Data]	80h -	00 _	0															
Detail Clip(-) Down Convert	QSL:58	BFh 00h	63	0															
Detail Knee Aperture Level	OSL:5A:[Data] QSL:5A	- 27h	- 39																
Down Convert	OSL:5B:[Data]	00h	00 -	0														 	
Detail Knee Down Convert	QSL:5B OSL:5C:[Data]	0Fh 0	15 Off	0															
Detail Level	QSL:5C	1 00h	0n 00	0															
Detail Level Down Convert Detail Level Dependent	OSL:5D:[Data] QSL:5D	- 0Fh	- 15															[
Down Convert Dark Detail SW		0 1	0ff 0n	0															
Down Convert Dark	OSL:5F:[Data]	0	0	0															
Detail	QSL:5F	7	7																
Down Convert Skin Tone Detail	QSL:60	1	Off On	0															
Tone Detail Down Convert Skin Tone Detail Zebra	USL:61:[Data] QSL:61	0	Off On	O															
		0	A B	O															
Down Convert Skin Tone Detail Zebra Effect Memory	OSL:62:[Data]	2 3	C A+B																
Effect Memory	QSL:62	4 5	A+B A+C B+C A+B+C																
		6	A+B+C																
		0	A B	0															
Down Convert Skin	OSL:63:[Data]	2 3	C A+R																
Down Convert Skin Tone Effect Memory	y QSL:63	4	A+B A+C B+C A+B+C																
		6	A+B+C																
	051 : 64 : [Do+o]	80h	0	0															
Down Convert Skin Tone Crisp	USL: U4: Data	_		_		_	_	1										1	

ITEM	Command Control / Response /	Data	Data Contents Control and					<u> </u>	Г			<u> </u>	<u> </u>				1		
Down Convert Skin	Confirmation	00h	Response to contol 0	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Tone Detail I Center	QSL:65	– FFh	_ 																
Down Convert Skin Tone Detail I	OSL:66:[Data] QSL:66	00h - FFh	0 - 255	0			-		-										_
Width Down Convert Skin Tone Detail Q	OSL:67:[Data]	00h -	0 -	0														 	_
Width Down Convert Skin	QSL:67 OSL:68:[Data]	7Fh 000h	127 0	0															
Phase	USL : 08	- 167h	359	0															
Skin Tone Detail Memory Select	OSL:69:[Data] QSL:69	1 2	B C																
		0 1	A B	0															
Zebra Effect Memory	OSL:6A:[Data] QSL:6A	2 3 4	A+B A+C																
incinor y	402.5%	5 6	A+C B+C A+B+C																
Linear Matrix	OSL:6C:[Data]	0	Off On	0					-										
Color Correct Table	QSL:6C OSL:6E:[Data] QSL:6E	0	A B	0														 	
		00h -	-31 -	0															_
Matrix(R-G)_P	OSL:6F:[Data] QSL:6F	1Fh - 3Eh	0 - +31																
		00h	-31	0					-										
Matrix(R-B)_P	OSL:70:[Data]	– 1Fh	0																
	QSL:70	- 3Eh	+31																
		00h _	-31 -	0															
Matrix(G-R)_P	OSL:71:[Data] QSL:71	1Fh - 3Eh	0 - +31																
		00h	-31	0			-												
Matrix(G-B)_P	OSL:72:[Data]	- 1Fh																	
	QSL:72	– 3Eh	+31																
		00h -	-31 -	0															_
Matrix(B-R)_P	OSL:73:[Data] QSL:73	1Fh -	0 -																
		3Eh 00h	+31 -31	0															
Matrix(B-G)_P	OSL:74:[Data]	- 1Fh																	
macrix (b d)_r	QSL:74	_ 3Eh	- +31																
HDR Paint SDR	OSL:88:[Data] QSL:88	00h -	0 -	0															_
Convert Point HDR Paint SDR	OSL:89:[Data]	64h 00h	100 0	0															
Convert Slope	QSL:89	– 7Fh 1Ch	127 -100	0															
HDR Paint SDR Convert Black	OSL:8A:[Data]	- 80h	_ 0																
Offset	QSL:8A	_ E4h	+100																
0. I. S.	OSL:8B:[Data] QSL:8B	0 1	Off On	0															
O. I. S. Mode	OSL:8C:[Data] QSL:8C	1 2 3 4	O.I.S (STABLE) O.I.S (PAN/TILT) HYBRID (STABLE) HYBRID (PAN/TILT)	0															_
WFM Mode	OSL:8D:[Data] QSL:8D	0	OFF ON (Y)	0															_
		0	ON (Y/Pb/Pr) UR BR	0															
WFM Position	OSL:8E:[Data] QSL:8E	2 3	BL UL																
Casa Fill I	OSL:8F:[Data]	0	0FF Scene1	0															_
Scene File Load	OSL:8F:[Data] QSL:8F	8	- Scene8																
Scene File Store	OSL:90:[Data]	1 -	Scene1	0															
		<u>8</u> [Data1] 1	Scene8 [Data1] Scene1	0															
Scene File File	OSL:91:[Data1]:[Data	0	_																
Name	QSL:91:[Data1]	[Data2] xxxxxxxx (30 DATA in ASCII CODE)	Scene8 [Data2] SCENE FILE NAME (FIXED 15 CHARACTORS)																
User File Load	OSL:92:[Data]	1 -	User1 - 	0															
User File Store	OSL:93:[Data]	3 1 -	User3 User1 -	0					-										
Joseph Frie GLOIE	00E.00.[Data]	3	User3	I	J							l				I	I	1	

ITEM	Command Control / Response /	Data	Data Contents Control and	HE400	HEGO WEEG WE	HEAD (HEAD	LID: OC	lietoo	1157	HE4EO /VE-1-5	1104.40	LIBOOG	UE30	uese .	11570	UE400	115400	UEAA	lies.
	Confirmation	[Data1]	Response to contol [Data1]	UE160 O	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4 	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	001 -04-50-4-43-50	1 -	User1 -	اً ا															
Nome	OSL:94:[Data1]:[Data 2]	3 [Data2]	User3 [Data2]																
	QSL:94:[Data1]	xxxxxxxx (30 DATA in ASCII CODE)	SCENE FILE NAME (FIXED 15 CHARACTORS)																
0 · V ·	QSL:99	VXX. XX-XXX-XX. XX	VXX. XX–XXX–XX. XX	0				 											
System Version White Shading	OSL:99:[Data] OSL:9B:[Data]	0	Ex) V01.00-000-00.00 Off	0				 											
Correct	QSL:9B	1 1Ch	0n −100	0				 											
White Shading W H		– 80h	_ 0																
Saw R	QSL:9C	_ E4h	- +100																
		1Ch	-100	0				 											
White Shading W H	OSL:9D:[Data]	– 80h	0																
Saw G	QSL:9D	E4h	+100																
		1Ch	-100	0															
White Shading W H		– 80h –	0																
Saw B	QSL:9E	E4h	+100																
		1Ch _	-100 -	0															
White Shading W H Para R	OSL:9F:[Data] QSL:9F	80h -	0 -																
		E4h	+100																
		1Ch -	-100 -	0															
White Shading W H Para G	OSL:AO:[Data] QSL:AO	80h -	0 –																
		E4h	+100																
		1Ch -	-100 -	0															
White Shading W H Para B	OSL:A1:[Data] QSL:A1	80h -	0 –																
		E4h	+100																
		1Ch _	-100 -	0															
White Shading W V Saw R	OSL:A2:[Data] QSL:A2	80h 	0 -																
		E4h	+100																
		1Ch -	-100 -	0															
White Shading W V Saw G	OSL:A3:[Data] QSL:A3	80h - -	0 -																
		E4h	+100																
White Chadina W V	001 - 44 - 50 - 4 - 3	1Ch - 20h	-100 -	O															
White Shading W V Saw B	OSL:A4:[Data] QSL:A4	80h - E4b	U - +100																
		E4h	+100 -100																
White Shading W V	091 : 45 : [Da+a]	1Ch - 80h	-100 - 0																
Para R	QSL:A5:[Data]	- E4h	- +100																
		10h	-100	0															
White Shading W V	OSL:A6:[Data]	- 80h	- 0	<u> </u>															
Para G	QSL:A6	- E4h	- +100																
	-	1Ch	-100	0															
White Shading W V	OSL:A7:[Data]	_ 80h	_ 0																
Para B	QSL:A7	_ E4h	- +100																
	+	01h	720/59. 94p	0															
		02h 04h	720/50p 1080/59, 94i																
		05h 10h	1080/50 i 1080/59. 94p																
ST2110 Main Video Tx Format	OSL:AA:[Data] QSL:AA	11h 14h 15h	1080/50p 1080/29. 97p 1080/25p																
		15h 20h 22h	1080/25p 1080/60p 1080/24p																
		22h 23h FFh	1080/24p 1080/23.98p DISABLE(query only)																
		01h	720/59. 94p	0															
		01h 02h 04h	720/59.94p 720/50p 1080/59.94i	ľ															
		05h 10h	1080/50 i 1080/59 . 94p																
ST2110 Crop Video Tx Format	QSL:AC	11h 14h	1080/50p 1080/29. 97p																
lx Format	USL:AC:[Data]	15h 20h	1080/25p 1080/60p																
		22h 23h	1080/24p 1080/23.98p																
		FFh	DISABLE(query only)																
			•		-	1	ı	. 1	ı		•	1	•	•	1	ı	1	1	•

ITEM	Command Control / Response /	Data	Data Contents Control and	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	Confirmation	01h	Response to contol 720/59.94p	O OE100															
		02h 04h 05h 10h	720/50p 1080/59. 94 i 1080/50 i 1080/59. 94p																
ST2110 Monitor Video Tx Format	QSL:AD OSL:AD:[Data]	11h 1 4 h	1080/50p 1080/29. 97p																
Video ix ioimat	OSE: AD: [Data]	15h 20h 22h	1080/25p 1080/60p 1080/24p																
		23h FFh	1080/23.98p 1080/23.98p DISABLE(query only)																
0 N	OSL:AE:[Data]	01	1	0															
Camera Number	QSL: AE	- 99 [Data1]	- 99 [Data1]	0			0												
		1Dh -	-9.9° (Left Down) -																
		80h - E3h	0.0° - 9.9° (Left Up)																
		[Data2] 1Dh	[Data2] -9.9° (Right Down)																
		- 80h -	0. 0°																
Request	QSL:AF OSL:AF:[Data1]:[Data	E3h [Data3]	9.9° (Right Up) [Data3]																
Inclination	2]:[Data3]:[Data4]	1Dh - 80h	-9.9° (Front Down) - 0.0°																
		– E3h	- 9.9° (Front Up)																
		[Data4] 1Dh	[Data4] -9.9° (Back Down) -																
		80h -	0. 0° –																
		E3h	9. 9° (Back Up)																
06	OSL:B0:[Data]	1Ch - 80h	-100% - 0	O															
Chroma Level	QSL:B0	A8h	40																
Down Convert Skin Tone Detail Memory Select	OSL:B1:[Data] QSL:B1	0	A B	0															
Select		2 [Data1]R-X 701h-8FFh	C [Data1]R-X -255∼255	0															
		[Data2]R-Y 701h-8FFh	[Data2]R-Y -255 ∼ 255																
		[Data3]G-X 701h-8FFh [Data4]G-Y	[Data3]G−X −255~255 [Data4]G−Y																
		701h-8FFh [Data5]B-X	−255 ∼ 255 [Data5]B−X																
	QSL:B2 OSL:B2:[Data1]:[Data 2][Data3]:[Data4]:[D	701h-8FFh [Data6]B-Y 701h-8FFh	-255~255 [Data6] B-Y -255~255 [Data7] CY-X -255~255																
(R/G/B/CY/MG/YL)	ata5]:[Data6]:[Data7]:[Data8]:[Data9]:[D	[Data7]CY-X 701h-8FFh	[Data7]CY-X -255~255																
	ata10]:[Data11]:[Dat a12]	[Data8]CY-Y 701h-8FFh [Data9]MG-X																	
		701h-8FFh [Data10]MG-Y	[Data9]MG-X -255∼255 [Data10]MG-Y -255∼255																
		701h-8FFh [Data11]YL-X 701h-8FFh	-255~255 [Data11]YL-X -255~255																
		70111-31111 [Data12] YL-Y 701h-8FFh	[Data12]YL-Y -255~255																
Status Indicator Return Select	OSL:B3:[Data] QSL:B3	0	Off On	0															
	302.00	04h 05h	1080/59.94i 1080/50i	0									 		 				
		10h 11h 14h	1080/59, 94p 1080/50p																
ST2110 Ret Video Rx Format	QSL:B4 OSL:B4:[Data]	15h 20h	1080/29. 97p 1080/25p 1080/60p																
		22h 23h	1080/24p 1080/23.98p																
D. I. S. S Mode	QSL:B5	FFh 0	DISABLE(query only) Off				0												
Auto Tracking Mode	QSL:B5 OSL:B5:[Data] QSL:B6 OSL:B6:[Data]	1 0	On Off On		0								 		 				
	QSL:B7 OSL:B7:[Data]	0	Off Full Body		0														
	OSL:B7:[Data] QSL:B8 OSL:B8:[Data]	2	Upper Body Off		0														
	OSL:B8:[Data] QSL:BB OSL:BB:[Data]	0	On Not Tracking Tracking		0														
Tracking	OSL:BB:[Data] QSL:BC OSL:BC:[Data]	0	Lost Stop		0								 	 	 				
Tracking Auto	OSL:BC:[Data] QSL:BD OSL:BD:[Data]	1 0 1	Start Disable Enable		0														
	QSL:BE:[Data] OSL:BE:[Data]	000h	0 (Maskなし) -		0														
	QSL:BF OSL:BF:[Data]	438h 000h -	1080 0 (Maskなし) -		0						 			 					
	+ +	- 438h 000h	- 1080 0 (Maskなし)		0						 			 					
Mask Left	QSL:CO OSL:CO:[Data]	780h	1920																

17511	Command		Data Contents																
ITEM	Control / Response / Confirmation	Data	Control and Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Mask Right	QSL:C1 OSL:C1:[Data]	000h - 780h	0 (Maskなし) - 1920		0				-										
	QSL:C2	000h -	Preset1 Preset2		0														
Home Position	OSL:C2:[Data]	780h	Preset3 None																
Focus Guide	QSL:C3 OSL:C3:[Data]	0	Wide Off On	0															
	OOL: OO: [Data]	[Data1] 00h	[Data1] H POS. 0%	0															
Focus Guide	QSL:C4 OSL:C4:[Data1][Data2	- 64h	100%																
Position	OSL:C4:[Data1][Data2]	[Data2] 00h	[Data2]V POS. 0%																
		- 64h	_ 100%																
		7Bh _	-5 (NEAR) -	0															
Focus Guide Statu (Web UI)	us QSL:C5 OSL:C5:[Data]	80h - 05l	O (IN FOCUS)																
(Heb OI)	OSC.OS.[Data]	85h FEh FFh	5 (FAR) FOCUS GUIDE OFF NOT MEASURABLE																
		62h	-30 (NEAR)	0				 											
Focus Guide Statu	us QSL:C6	_ 80h	O(IN FOCUS)																
(Detail)	OSL:C6:[Data]	– 9Eh FEh	30 (FAR) FOCUS GUIDE OFF																
SYNC STATUS (GEN-	0.51 : 0.7	FFh 0	NOT MEASURABLE NO SYNC	0															
LOCK / PTP) ST2110	OSL:C7: [Data]	1 0	SYNC SYNC MAIN	0															
JPEG XS TX VIDEO SELECT	QSL:C8 OSL:C8:[Data]	1	CROP																
		10h 11h	1080/59. 94p 1080/50p 1080/29. 97p 1080/25p	0															
		14h 15h 17h	1080/29, 97p 1080/25p																
ST2110		17n 18h 19h	2160/29, 97p 2160/25p 2160/59, 94p 2160/50p 2160/23, 98p 2160/60p																
MAIN VIDEO JPEG X	S QSL:C9 OSL:C9:[Data]	1 A h 1Bh	2160/50p 2160/23.98p																
TX FORMAT		1Fh 20h	1080/60p																
		21h 22h	2160/24p 1080/24p 1080/23, 98p																
		23h FFh	1080/23.98p DISABLE(query only)																
		10h 11h	1080/59. 94p 1080/50p	0				-											
ST2110	V2 1201 : CA	14h 15h	1080/29. 97p 1080/25p																
TX FORMAT	S QSL:CA OSL:CA:[Data]	20h 22h	1080/60p 1080/24p 1080/23, 98p																
		23h FFh	1080/23.98p DISABLE(query only)																
		04h 05h	1080/59. 94 i 1080/50 i	0				-											
ST2110		10h 11h	1080/59.94p 1080/50p																
ST2110 RET VIDEO JPEG XS RX	G QSL:CB OSL:CB:[Data]	14h 15h 20h	1080/29.97p 1080/25p																
FORMAT		20h 22h 23h	1080/60p 1080/24p 1080/23, 98p																
	001 :00	FFh	DISABLE(query only)																
AUTO IRIS WINDOW	QSL:CC OSL:CC:[Data]	U 1 [Data1]	Off On [Data1]UPPER LEFT(H)	0															
		[Data1] 00h -	0 -	Ĭ															
		08h [Data2]	8 [Data2]UPPER LEFT(V)																
	081 : CD	00h -	0 -																
AUTO IRIS WINDOW POSITION	QSL:CD OSL:CD:[Data1]:[Data 2]:[Data3]:[Data4]	04h [Data3] 00h	4 [Data3]BOTTOM RIGHT(H)																
		00h _ 08h	- 8																
		[Data4] 00h	[Data4]BOTTOM RIGHT(V) 0																
		_ 04h	_ 4																
PRESET PTZ SYNC	QSL:CE OSL:CE:[Data1]	0	Off On	0				-	-										
	Jose - Oz - [pucui]	000h 001h	-511 -511 -511					-										0	0
SC Fine	OSN:[Data]	002h -	-511 -																
OV THIE	QSN	200h -	0 -																
Coft V	OSV	3FFh	+511								0			0					
Software Version (System Version)	OSV:[Data]		Software Version		<u> </u>					<u> </u>	J			J	<u> </u>		<u> </u>	0	<u> </u>

	Common d		Data Contents																
ITEM	Command Control / Response /	Data	Control and																
	Confirmation		Response to contol	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UB300	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		00h	-10								0		0	0	0	0	0	0	0
		_ 1Eh	0																
		-	-																
		3Ch	+10																
T Pedestal	OTD:[Data] OTD		HR140, HE130, HE120																
	410	00h _	-150 -																
		1Eh	0																
		_ 3Ch	_ 150																
		3011	150																
		000h	-150								0		0	0	0	0	0	0	0
		– 096h	0																
		_	-																
		12Ch	+150																
T Pedestal	OTP: [Data]		UE70series, HE75series, HE70seri																
1 Todooca1	QTP	000h	<u>es, HE60, HE50</u> -10																
		_	-																
		096h _	0 _																
		12Ch	10																
0	OVD : 00 : [D - + -]	^	Damas and a																
Serial Com. Protocol	OVP:02:[Data] QVP:02	1	Panasonic Standard			0													
Serial Connector	OVP:03:[Data]	0	RS422			0													
Select	QVP:03	0	RS232C 9600bps	0		supports only													
Serial Baud Rate	OVP:04:[Data]	1	38400bps			0 (9600bps), 1 (3840													
	QVP:04	2	115200bps			Obps)													
		0	Auto			0													
		1 2	1 2																
Serial Camera Address	OVP:05:[Data] QVP:05	3	3																
Address	QVP:05	4	4 5																
		6	6																
AWO /AWD OFF	OWO		7 AWC/AWB Start				0												
	OWS			0					<u> </u>			0			<u> </u>		J	J	J
R-Tally Control	TLR:[Data] QLR	1	Off On					ľ											
	OLR: [Data]																		
	TLG: [Data]	0	Off On	0	0		0	0		0		0							
G-Tally Control	QLG OLG:[Data]	1	0n																
	TLY: [Data]	0	Off	0															
Y-Tally Control	QLY	1	Off On																
	OLY: [Data]																		
Scene File	XSF:[Data] OSF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
200110 1 1 1 0	QSF OSF:[Data]																		

PT command

ITEM	Command Control Confirmation	Data	Data Contents	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	Response	[Data1] 0000h	[Data1]Pan Position CCW Limit	supports only Pan	supports only	supports only	supports only	supports only	supports only Pan	supports only	supports only	supports only	supports only	supports only	supports only	supports only	supports only Pan	supports only
		- 8000h		2D09(CCW Limit) -D2F5(CW Limit)	2D09(CCW Limit) -D2F5(CW Limit)	2F69(CCW Limit) -D097(CW Limit)	2D09(CCW Limit) -D2F5(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)
	#APC[Data1][Data2]	– FFFFh	– CW Limit	Tilt 1C71(UP Limit)	Tilt 1C71(UP Limit)	Tilt 5555(UP Limit)	Tilt 1C71(UP Limit)	Tilt 1C71(UP Limit)	8000(Center)	Tilt 1C71(UP Limit)	Tilt 1C71(UP Limit)	Tilt 5555(UP Limit)	Tilt 5555(UP Limit)	Tilt 5555(UP Limit)	Tilt 1C71(UP Limit)	Tilt 1C71(UP Limit)	Tilt 5555(UP Limit)	Tilt 5555(UP Limit)
7/ I Absolute Position	#APC aPC[Data1][Data2]	[Data2]	[Data2]Tilt Position	-8E38(DOWN Limit)		-8E38(DOWN Limit)	-8E38(DOWN Limit)	-8E38(DOWN Limit)	-8E38(DOWN Limit)	-8E38(DOWN Limit)	-8E38(DOWN Limit	-8E38(DOWN Limit)) -8E38(DOWN Limit)	-8E38(DOWN Limit)				
		0000h -	UP Limit -															
		8000h -	Center -															
		FFFFh [Data1]	DOWN Limit [Data1]Pan Position	0	0		0	0		0	0	0	0	0	0			
		0000h -	CCW Limit															
		8000h -	Center –															
		FFFFh	CW Limit															
		[Data2] 0000h	[Data2]Tilt Position UP Limit -															
P/T Absolute Position	#APS[Data1][Data2][Data3][8000h -	Center -															
Control with Speed	aPS[Data1][Data2][Data3][D	FFFFh	DOWN Limit															
	a.a.1]	[Data3] 00h	[Data3]Preset Speed 1															
		- 1Dh	30															
		[Data4]	[Data4]Preset Speed Table															
		0	Slow Fast															
	"AVED .]	2	Fast															
ocus Position Control	#AXF[Data] #AXF axf[Data]	555h – FFFh	Near – Far	O	O			O	supports only 555	O	O	O		O	O			O
ris Control	#AXI[Data]	555h -	Iris Close -	0	0	0	0	0	supports only 555	0	0	0	0	0	0	0	0	0
	axi[Data] #AXZ[Data]	FFFh 555h	Iris Open	0	0	0	0	0	supports only	0	0	0	0	0	0	0	0	0
Zoom Position Control	#AXZ #AXZ axz[Data]	– FFFh	– Tele						555									
		00	Preset001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delete Preset Memory	s[Data]	99	Preset100															
ocus Mode	#D1[Data] #D1	0 1	Manual Auto	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	d1[Data] #D3[Data]	0	Manual	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	#D3 d3[Data]	1	Auto		(11500)													
Day/Night	#D6[Data] #D6 d6[Data]	0 1	Day Night	O	O (UE80) (UE50, UE40)		O	O		O	O	O	O	O	O		O	O
Defroster Control	do[Data] #D7[Data] d7[Data]	0	Off(Auto) On				0				0 : Auto 1 : On							
Viper Control	#D8[Data] d8[Data]	0	Off On				0				0 : Off 1 : Fast							
leater/Fan Control	#D9[Data] d9[Data]	0 1	Off(Auto) On				0				(Heater) 0 : Auto							
) T 0	#DA[Data]	0	Off	0	0	0	0	0	0	0	1 : On O	0	0	0	0	0	0	0
	#DA dA[Data] #ns	0	On															
Defroster Status	dS[Data]	1 01	0ff <u>0n</u> Near Max. Speed	0	0	0	0	0		0	0	0	0	0	0	0	0	0
		- 49	– Near Min. Speed															
ocus Speed Control	#F[Data] fS[Data]	50 51	Stop Far Min. Speed															
		- 99	– Far Max. Speed															
	#FAN[Data]	0	Auto	0	O (UE80) (UE50, UE40)		Supports only	0		0	Supports only							
an	#FAN fAN[Data]	2	High Mid Low		(UE3U, UE4U)		0(Auto) 1(On)				Supports only 0(Auto) 1(On)							
	#FA2[Data]	0	Auto	0			Supports only			0								
an2	#FA2 #FA2 fA2[Data]	1 2 3	High Mid Low				0(Auto) 1(On)											
	#FDA[Data]	3 3Ch	60deg	0			0	0		0	0				0	0		
Flip Detect Angle	#FDA fDA[Data]	– 78h	- 120deg															
· C+-+1	#F\$1	0	Off On	0	O (UE80) (UE50, UE40)		0	0		0	Supports only 0(Off), 1(On)							
an ocucuoi	fS1[Data]	2	Error Off	0														
an Status2	#FS2 fS2[Data]	1	On Error	Ĭ							Supports only 0(Off), 1(On)							

	Command																	
	Control Confirmation Response	Data	Data Contents	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		555h –	Near –	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Request Focus Position	#GF gf[Data]	FFFh	Far															
		""	@Power Off															
		[Data1] 555h	[Data1] Close	0	O	O	0	O		O	O	0	O	O	O	O	O	0
		– FFFh	– Open															
Request Iris Position	#GI gi[Data1][Data2]	" "	@Power Off															
	g	[Data2]	[Data2]															
		0 1	Manual Iris Auto Iris															
		555h	Wide	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Request Zoom Position	#GZ gz[Data]	– FFFh	– Tele															
i osition	gz[Data]	" "	@Power Off															
		[Data1] 0000h	[Data1] Pan Position CCW Limit		0													
		– FFFF [Data2] 0000h	– CW Limit [Data2] Tilt Position UP Limit															
		- FFFFh	DOWN Limit															
		[Data3] 00h 01h	[Data3] Pan Speed 0(stop) 1(minimum speed)															
		– FFh	_ 255(max speed)															
		[Data4]	[Data4] Tilt Speed 0(stop)															
P/T Absolute Position	#HAC[Data1][Data2][Data3][Data4][Data5][Data6][Data7] [Data8]	01h -	1(minimum speed)															
(PT Independent	hAC[Data1][Data2][Data3][D ata4][Data5][Data6][Data7][FFh [Data5] 01h	255(max speed) [Data5]Pan Rise Acceleration 1(minimum acceleration)															
201.007	Data8]	– FFh [Data6] 01h	- 255(max acceleration) [Data6]Tilt Rise Acceleration 1(minimum acceleration)															
		– FFh [Data7]	– 255(max acceleration) [Data7]Pan Fall Acceleration															
		01h - FFh [Data8]	1(minimum acceleration) - 255(max acceleration) [Data8]Tilt Fall Acceleration															
		01h - FFh	1(minimum acceleration) - 255(max acceleration)															
		7F00h	−256 : Left Max. Speed							0		<u> </u>						
Pan Speed Control	#HP[Data]	7F00n - 8000h	-250 : Left Max. Speed - 0 : Stop		O			O		O								
(High precision)	hP[Data]	8000h - 8100h	-															
		[Data1]	+256 : Right Max. Speed [Data1]	0	0		0	0		0								
		7F00h - 8000h	-256 : Left Max. Speed - 0 : Stop															
D/T 0 10 1	#UDT[D + 4][D + 0]	– 8100h	- +256 : Right Max. Speed															
P/T Speed Control (High precision)	#HPT[Data1][Data2] hPT[Data1][Data2]	[Data2]	[Data2]															
		7F00h -	−256 : Down Max. Speed −															
		8000h -	0 : Stop -															
	#UC	8100h	+256 : Up Max. Speed															
Heater Status	#HS hS[Data]	1 7F00h	0ff 0n -256 : Down Max. Speed								0							
Tilt Speed Control	#HT[Data]	_	-	ľ														
Tilt Speed Control (High precision)	hT[Data]	8000h - 8100b	0 : Stop - +256 : Un May Speed															
	#I[Data]	8100h 01	+256 : Up Max. Speed Iris Close	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Iris Control	#I iC[Data]	- 99	- Iris Open															
	#INS[Data] #INS iNS[Data]	0	Desktop Hanging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<u>Controller →</u> <u>P/T</u>	Tilt Up	0	0		0	0		0	0	0	0	0	0	0	0	0
Limitation Control (toggle)	#L[Data] I[Data]	1 2 3 4	Tilt Up Tilt Down Pan Left Pan Right															
		<u>P/T −></u> Controller	Release Set															

	Command																	
ITEM	Control Confirmation Response	Data	Data Contents	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
		[Data1] 1	[Data1] Tilt Up	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	# 0[D + 1][D + 0]	2	Tilt Down Pan Left															
Limitation Control	#LC[Data1][Data2] #LC[Data1]	4	Pan Right															
	IC[Data1][Data2]	[<u>Data2]</u> 0 1	<u>[Data2]</u> Release Set															
Status Lamp	#LMP[Data] #LMP IMP[Data]	0 1	Disable Enable	0	0	0		0		0					0			
Long i ogidon	IMP[Data] #LPC[Data] #LPC	0 1	Off On	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
anomiacon concor	IPC[Data]	[Data1] 555h	[Data1]Zoom Position Wide	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Lens Position Information	#LPI PI[Data1][Data2][Data3]	– FFFh [Data2] 555h – FFFh	– Tele [Data2]Focus Position Near – Far															
		[Data3] 555h – FFFh	[Data3]Iris Position Close - Open															
	// To	00	Preset001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Save Preset Memory	#M[Data] s[Data]	- 99	- Preset100															
Power On / Standby	#O p[Data]	0 1	Power Off Power On Starting(※)	0	0	0	0	0	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	0	0
Pan Speed Control	#P[Data] pS[Data]	50 - 99	Stop - Right Max. Speed															
		[Data1] 00h	[Data1] Preset 001∼040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		01h 02h	Preset 041~080 Preset 081~100															
		[Data2] 0000000000h -	[Data2]															
Preset Entry Confirmation	#PE[Data1] pE[Data1]	FFFFFFFFh (bit0) 0 1 (bit1) 0 1	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	0	0			
Preset Speed Table	#PST[Data] #PST pST[Data]	0 1	Slow Mid Fast	supports only 0(Slow) 2(Fast)		supports only 0(Slow) 2(Fast)												
	bo i [narg]	2 [Data1] 0000h	[Data1] (Pan) 0000h	O (Fast)	O (Fast)	<u>Z(Fast)</u> 	O	O		0	<u>Z(Fast)</u> 		<u>Z(Fast)</u> 	<u>Z(Fast)</u> 	<u>Z(Fast)</u> 			
		– FFFFh [Data2] 0000h	– FFFFh [Data2] (Tilt) 0000h –															
		– FFFFh [Data3]	FFFFh [Data3] (Zoom)															
Get Pan/Tilt/Zoom/F	#PTD pTD[Data1][Data2][Data3][D ata4][Data5]	000h - 3E7h	0 - 999															
ocus/Iris		[Data4] 00h -	[Data4] (Focus) 0 -															
		63h [Data5] 00h	99 [Data5] (Iris) F0.0															
		– FEh FFh	F25.4 CLOSE															

_	ommand																	
Co	ontrol onfirmation esponse	Data	Data Contents	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Ive		[Data1] 02h	[Data1] (Gain) −6dB	[Data1]Gain support	s O		0	0		0								
		– 11h –	– 9dB –	02h(-6dB) - 14h(12dB)														
		1Ah -	18dB -	1411(1200)														
		32h 80h	42dB AGC On															
		[Data2] 00000h -	[Data2] 0K -															
		3A98h [Data3]	15000K [Data3] (Shutter Mode)															
Gain/ColorTemp/ pT	PTG [G[Data1][Data2][Data3][D	0h 1h 2h	Off Step Syncro															
Shutter/ND ata	a4][Data5][Data6]	3h [Data4]	ELC [Data4] (Shutter Step)															
		0001h -	1/1 -															
		2710 h [Data5] 00000h	1/10000 [Data5] (Shutter Synchro) 0.0 [Hz]															
		– 186A0h	– 10000.0[Hz]															
		[Data6] 0 1	[Data6] (ND) Throgh 1/4 ND															
		2 3	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	0	0
		– 50	- Stop															
р/т о #Р	PTS[Data1][Data2]	99	- Right Max. Speed															
P/T Speed Control pT	PTS[Data1][Data2] FS[Data1][Data2]	[Data2] 01	[Data2] Down Max. Speed															
		- 50 -	Stop															
		99	UP Max. Speed															
		[Data1] 0000h -	[Data1] (Pan) ccwLimit –	0	O		0	0		0								
		8000h -	Center -															
		FFFFh [Data2]	cwLimit [Data2] (Tilt)															
		0000h - 8000h	UpLimit – Center															
Get #P	PTV FV[Data1][Data2][Data3][D a4][Data5]	- FFFFh	– DownLimit															
/Iris ata	a4][Data5]	[Data3] 555h -	[Data3] (Zoom) Wide –															
		FFFh [Data4]	Tele [Data4] (Focus)															
		555h - FFFh	Near – Far															
		[Data5] 555h	[Data5] (Iris) Close															
		– FFFh	– Open															
Preset completion q[[Data]	00 -	<u>Preset001</u> =	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#Q	QSV[Data1]	99 ※	Preset100 ※		*		*	*		*	*	*	*	*	*	*	*	*
	SV[Data1]V[Data2].[Data3] Data4][Data5][data6]	00	Preset001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recall Preset Memory #R s[[– 99	- Preset100															
Information rEl	RER [R[Data]	*	X CAM1	*	(UE80)		*	*		*		*	*	*	*	*	*	*
IR ID / Wireless ID #R	RID[Data] RID D[Data]	1 2	CAM2 CAM3		→ (UE80) ○ (UE50, UE40)								O					
ril	סנטמנמן	3 [Data1]	CAM4 [Data1]Pan Position	0	0		0	0		0	0	0	0	0	0			
		0000h - 8000h	CCW Limit – Center															
D/T D		- FFFFh	CW Limit															
P/T Relative Position #R Control rP	RPC[Data1][Data2] PC[Data1][Data2]	[Data2] 0000h	[Data2]Tilt Position UP Limit															
		- 8000h	OP LIMIT - Center															
i		- FFFFh	DOWN Limit															

	Command			I														
ITEM	Control Confirmation Response	Data	Data Contents	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
	Коороноо	[Data1] 0000h	[Data1]Pan Position CCW Limit	0	0		0	0		0	0	0	0	0	0			
		- 8000h	– Center															
		– FFFFh	- CW Limit															
		[Data2] 0000h	[Data2]Tilt Position UP Limit															
	#RPS[Data1][Data2][Data3][– 8000h	– Center															
P/T Relative Position Control with Speed		– FFFFh	– DOWN Limit															
Contain with opeca	ata4]	[Data3] 00h	[Data3]Preset Speed 1															
		– 1Dh	- 30															
		[Data4] 0	[Data4]Preset Speed Table Slow															
		2	Mid Fast															
Resolution Control	#RZL[Data] #RZL rZL[Data]	0 1 2	640x360 320x180 1280x720 1920x1080	0	0	-	0	0		0		supports only 0(640x360) 1(320x180)	supports only 0(640x360) 1(320x180)	supports only 0(640x360) 1(320x180)				
Request Latest Recall	#9	00	Preset 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preset No.	s[Data]	99	- Preset 100															
Smart Picture Flip	#SPF[Data] #SPF sPF[Data]	0 1	Off Auto	0			0	0		0	0				0	0		
Speed With Zoom Position	sPF[Data] #SWZ[Data] #SWZ sWZ[Data]	0 1	Off On	0	0	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	0	0
Tilt Speed Control	#T[Data] tS[Data]	50 - 99	Stop - UP Max. Speed															
Tally Infomation	#TAA tAA[Data1][Data2][Data3][D ata4][Data5][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 [Data8] 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 Off Command Red Tally In On [Data4] Green Tally Off Green Tally On [Data5] Wired Green Tally In Off Wired Green Tally In On [Data6] Command Green Tally In Off Yellow Tally On [Data7] Yellow Tally On [Data8] Wired Yellow Tally In Off Wired Yellow Tally In On [Data9] Command Yellow Tally In Off	[Data5],[Data8]:uni	us [Data5],[Data7],[Dat 8],[Data9]:unused	ta [Data2],[Data4],[D 5],[Data6],[Data7], ata8],[Data9]:unus	ata [Data5],[Data7],[Da ,[D 8],[Data9]:unused ed	ata [Data5],[Data7],[Data8],[Data9]:unused	a [Data2],[Data4],[Data 5],[Data6],[Data7],[D ata8],[Data9]:unused	[Data5],[Data7],[Data 8],[Data9]:unused								
Tally Enable	#TAE[Data] #TAE tAE[Data]	0 1	Disable Enable	0	0	0	supports only 1 (Enable)	0	0	0		0	0	0	0	0	0	0

	Command																	
ITEM	Control Confirmation Response	Data	Data Contents	UE160	UE80/UE50/UE40	UE20/HE20	UR100	UE100	UE4	UE150/HE145	HR140	UE70series	HE75series	HE70series	HE130	HE120	HE60	HE50
Preset Speed	#UPVS[Data] #UPVS uPVS[Data]	[Preset Speed Unit :0 (SpeedTable)] 275h 300h 325h 350h 375h 400h 425h 450h 475h 500h 525h 550h 575h 600h 625h 650h 675h 700h 725h 750h 775h 800h 825h 850h 875h 900h 925h 950h 975h 999h [Preset Speed Unit : 1 (Time)] 001h - 063h	[Preset Speed Unit : 0 (SpeedTable 1	e)] O		O Preset Speed Unit is fixed to 0(Speed Table)		0			0	0		0	0		0	
Washer	#WAS[Data] #WAS wAS[Data]	1	Off On				O				0							
Wiper	#WIP[Data] #WIP wIP[Data] #WLC[Data1]	0 1 2	Off Fast Slow				0				0							
Wireless Control	#WLC[Data1] #WLC wLC[Data1] #WPR wPR #WPT wPT	0 1	Disable Enable	Ο	0	0		0	0	0		0	O	0	0	0	0	0
Washer P/T Position Reset Washer P/T Position	#WPR wPR						0				0							
Washer P/T Position	#WPT wPT						O				0							
	#Z[Data] zS[Data]	01 - 49 50 51 - 99	Wide Max. Speed - Wide Min. Speed Stop Tele Min. Speed - Tele Max. Speed	O	O	O	O	O	O	O	O	0	O	O	O	O	O	O

XDetails

▼osh

Parameters vary depending on model and System Format

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

▼OSA:87

arameters vary depending o	on model			
UE160	UE80, UR100, UE100, UE150	UE50	UE40	HE145
[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)	01h (720/59. 94p)
10h(1080/59.94p)	04h (1080/59. 94i)	04h (1080/59. 94i)	04h (1080/59. 94 i)	04h (1080/59. 94i)
14h(1080/29.97p)	07h (1080/29. 97psF)	07h (1080/29. 97psF)	10h (1080/59. 94p)	07h (1080/29. 97psF)
17h(2160/29.97p)	10h (1080/59, 94p)	10h (1080/59. 94p)	14h (1080/29. 97p)	10h (1080/59, 94p)
19h(2160/59.94p)	14h (1080/29, 97p)	14h (1080/29. 97p)	17h (2160/29. 97p)	14h (1080/29, 97p)
26h(1080/119.88p)	16h (1080/23.98p (over	16h(1080/23.98p (over		16h(1080/23.98p (over
	59.94i/p))	59.94i/p))	[50Hz]	59.94i/p))
[50Hz]	17h (2160/29, 97p)	17h (2160/29. 97p)	02h (720/50p)	
02h(720/50p)	19h (2160/59, 94p)		05h (1080/50i)	[50Hz]
11h(1080/50p)		[50Hz]	11h (1080/50p)	02h (720/50p)
15h(1080/25p)	[50Hz]	02h (720/50p)	15h (1080/25p)	05h (1080/50i)
18h(2160/25p)	02h (720/50p)	05h (1080/50i)	18h (2160/25p)	08h (1080/25psF)
1Ah(2160/50p)	05h (1080/50i)	08h (1080/25psF)		11h (1080/50p)
27h(1080/100p)	08h (1080/25psF)	11h (1080/50p)	[24Hz]	15h (1080/25p)
	11h (1080/50p)	15h (1080/25p)	21h (2160/24p)	
[24Hz]	15h (1080/25p)	18h (2160/25p)	22h (1080/24p)	[24Hz]
21h(2160/24p)	18h (2160/25p)			22h (1080/24p)
22h(1080/24p)	1Ah (2160/50p)	[24Hz]	[23. 98Hz]	
			1Bh (2160/23, 98p)	[23. 98Hz]
[23.98Hz]	[24Hz]	21h (2160/24p)	23h (1080/23. 98p)	0Ah (1080/23. 98psF)
1Bh(2160/23.98p)		22h (1080/24p)		23h (1080/23. 98p)
23h(1080/23.98p)	21h (2160/24p)			
	22h (1080/24p)	[23. 98Hz]		
[60.00Hz]		0Ah (1080/23. 98psF)		
20h(1080/60p)	[23. 98Hz]	1Bh (2160/23, 98p)		
	0Ah (1080/23. 98psF)	23h (1080/23. 98p)		
	1Bh (2160/23. 98p)			
	23h (1080/23. 98p)			

▼OSA:87(Continued)

arameters vary depending of						
UE20	HE20	UE4	HR140	UB300	UE70series	HE40Series
[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	[59. 94Hz]	=== HDMI Model ===
1h (720/59. 94p)	1h (720/59. 94p)	1h (720/59. 94p)	1h (720/59. 94p)	00h (720/60p)	1h (720/59. 94p)	[59. 94Hz]
4h (1080/59. 94i)	4h (1080/59. 94i)	10h (1080/59, 94p)	4h (1080/59. 94 i)	01h (720/59. 94p)	4h (1080/59. 94i)	1h (720/59. 94p)
10h (1080/59. 94p)	10h (1080/59. 94p)	14h (1080/29. 97p)	7h (1080/29. 97psF)	04h (1080/59. 94i)	7h (1080/29. 97psF)	4h (1080/59. 94 i)
14h (1080/29. 97p)	14h (1080/29. 97p)	17h (2160/29. 97p)	Ah(1080/23.98psF)	07h(1080/29.97psF)	10h (1080/59. 94p)	7h (1080/29. 97psF)
17h (2160/29. 97p)			10h (1080/59. 95p)	0Ah (1080/23. 98psF)	14h (1080/29. 97p)	10h (1080/59. 95p)
	[50Hz]	[50Hz]	14h (1080/29. 97p)	10h (1080/59. 94p)	17h (2160/29. 97p)	14h (1080/29. 97p)
[50Hz]	2h (720/50p)	2h (720/50p)	16h (1080/23. 98p)	16h (1080/23. 98p)	80h (Auto)	80h (Auto)
2h (720/50p)	5h (1080/50i)	11h (1808/50p)		17h (2160/29. 97p)		
5h (1080/50i)	11h (1808/50p)	15h (1080/25p)	[50Hz]	19h (2160/59. 94p)	[50Hz]	[50Hz]
11h (1808/50p)	15h (1080/25p)	18h (2160/25p)	2h (720/50p)	1Bh (2160/23, 98p)	2h (720/50p)	2h (720/50p)
15h (1080/25p)			5h (1080/50i)	1Ch (2160/29, 97psF)	5h(1080/50i)	5h (1080/50i)
18h (2160/25p)	[60Hz]	[60Hz]	8h (1080/25psF)	1Eh (2160/23, 98psF)	8h (1080/25psF)	8h (1080/25psF)
	0h (720/60p)	0h (720/60p)	11h (1080/50p)	1Fh (2160/60p)	11h (1080/50p)	11h (1080/50p)
[60Hz]	3h (1080/60 i)	20h (1080/60p)	15h (1080/25p)	20h (1080/60p)	15h (1080/25p)	15h (1080/25p)
0h (720/60p)	20h (1080/60p)	24h (2160/30p)		44h (1080/59. 94i CROP)	18h (2160/25p)	80h (Auto)
3h (1080/60i)	25h (1080/30p)	25h (1080/30p)		50h (1080/59. 94p CR0P)	80h (Auto)	
20h (1080/60p)				55011.3		00.4 4 4 4
24h (2160/30p)				[50Hz]		=== SDI Model ===
25h (1080/30p)				02h (720/50p)	HE42series	[59. 94Hz]
				05h (1080/50i) 08h (1080/25psF)	[59.94Hz]	1h (720/59. 94p) 4h (1080/59. 94i)
				11h (1080/50p)	1h (720/59. 94p)	7h (1080/29, 97psF)
				18h (2160/25p)	4h (1080/59.94i)	14h (1080/29. 97p)
				1Ah (2160/50p)	7h (1080/29. 97psF)	1411(1060/29.97p)
				1Dh (2160/25psF)	10h (1080/59, 94p)	[50Hz]
				45h (1080/50 i CROP)	14h (1080/29, 97p)	2h (720/50p)
				51h (1080/50p CR0P)	80h (Auto)	5h (1080/50i)
				3111(1080/30p GKOF)		8h (1080/25psF)
					[50Hz]	15h (1080/25p)
					2h (720/50p)	1311(1000/23p)
					5h(1080/50i)	
					8h (1080/25psF)	
					11h (1080/50p)	
					15h (1080/25p)	
					80h (Auto)	

▼OSA:87(Continued)

arameters vary depending oi	i modei	
HE120	HE60	HE50
[59. 94Hz]	[H Model/59.94Hz]	[N Model]
1h (720/59. 94p)	1h (720/59. 94p)	1h (720/59. 94p)
4h (1080/59. 94i)	4h (1080/59. 94i)	4h (1080/59. 94i)
Bh (480/59. 94i)	Bh (480/59. 94i)	Bh (480/59. 94i)
10h (1080/59, 94p)	10h (1080/59. 94p)	
12h (480/59, 94p)	12h (480/59. 94p)	[E, MC Model]
		2h (720/50p)
[50Hz]	[H Model/50Hz]	5h (1080/50i)
2h (720/50p)	2h (720/50p)	Dh (576/50i)
5h (1080/50i)	5h (1080/50i)	
Dh (576/50i)	Dh (576/50i)	[H Model/59.94Hz]
11h (1808/50p)	11h (1808/50p)	1h (720/59, 94p)
13h (576/50p)	8h(1080/25psf)	4h (1080/59. 94i)
	13h (576/50p)	Bh (480/59. 94i)
		10h (1080/59, 94p)
	[S Model/59.94Hz]	7h (1080/29, 97psF)
	1h (720/59. 94p)	
	4h (1080/59. 94 i)	[H Model/50Hz]
	Bh (480/59. 94i)	2h (720/50p)
HE130		5h (1080/50i)
[59. 94Hz]	[S Model/50Hz]	Dh (576/50i)
1h (720/59, 94p)	2h (720/50p)	11h (1808/50p)
4h (1080/59. 94i)	5h (1080/50 i)	8h(1080/25psf)
7h (1080/29, 97psF)	Dh (576/50i)	
Ah (1080/23. 98psF)		[S Model/59.94Hz]
10h (1080/59, 95p)		1h (720/59, 94p)
12h (480/59, 94p)		4h (1080/59. 94i)
14h (1080/29, 97p)		Bh (480/59. 94i)
		7h (1080/29, 97psF)
16h (1080/23. 98p)		, , , , ,
[50Hz]		[S Model/50Hz]
2h (720/50p)		2h (720/50p)
5h (1080/50i)		5h (1080/50i)
		Dh (576/50i)
8h (1080/25psF) 11h (1080/50p)		8h (1080/25psf)
13h (576/50p)		, , ,
15h (1080/25p)		
13Π(1000/23β)		

▼OSD:B1

Parameters vary depending on model

	HR140, HE130	UE70series	, HE42series, HE40series
[Data]	Data Contents	[Data]	Data Contents
000h - 078h	2000K,2010K,2020K,2040K,2050K,2070K,2080K,2090K,2110K,2120K,2140K,2150K,2170K, 2180K,2200K,2210K,2230K,2240K,2260K,2280K,2300K,2310K,2330K,2340K,2360K,2380K, 2400K,2420K,2440K,2460K,2480K,2500K,2520K,2540K,2560K,2600K,2620K,2640K,2680K, 2700K,2720K,2740K,2780K,2800K,2820K,2850K,2870K,2920K,2950K,2970K,3000K,3020K, 3070K,3100K,3120K,3150K,3250K,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

		UE160, UE80, UE50, UE40, UR100, 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	UR100	UE100	UE150, HE145	HR140
				_		
[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	Camera CPU	CameraMain CPU
ZYNQ Network	reserve	reserve	ZYNQ Network	ZYNQ Network	COM FPGA	COM FPGA
Main/Network CPU	Main/Network CPU	Main/Network CPU	Main/Network CPU	Main/Network CPU	Main/Network CPU	Network CPU
ZYNQ Logic	AVIO FPGA	reserve	ZYNQ Logic	ZYNQ Logic	AVIO FPGA	AVIO FPGA
reserve	reserve	reserve	reserve	ZYNQ R5T	Interface CPU	Interface CPU
Lens CPU	Lens CPU	Lens CPU	Lens CPU	Lens CPU	Lens CPU	Lens FPGA
reserve	reserve	reserve	ZYNQ R5R	ZYNQ R5R	Interface EEPROM	Interface EEPROM
ZYNQ Enc	reserve	reserve	ZYNQ Enc	ZYNQ Enc	reserved	reserve
BE EEPROM	BE EEPROM	BE EEPROM	BE EEPROM	BE EEPROM	BE EEPROM	reserve
[Data2]	[Data2]	[Data2]	[Data2]	[Data2]	[Data2]	[Data2]
MAJOR VERSION	MAJOR VERSION	MAJOR VERSION	Major Version	Major Version	Major Version	Major Version
[Data3]	[Data3]	[Data3]	[Data3]	[Data3]	[Data3]	[Data3]
MINOR VERSION	MINOR VERSION	MINOR VERSION	Minor Version	Minor Version	Minor Version	Minor Version
[Data4]	[Data4]	[Data4]	[Data4]	[Data4]	[Data4]	[Data4]
(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)	(Debug Build)
(Release Build)	(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)	(REVISION)
[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 depending on model					
UE70, HE75, HE70series	HE130	HE120	HE60	HE50	
[Data1] Servo CPU Cam CPU FPGA BE CPU reserve Interface CPU reserve Interface EEPROM reserve [Data2] 00 [Data3] Version [Data4] L [Data5] 00 [data6] NTSC PAL	[Data1] Servo CPU CameraMain CPU COM FPGA Network CPU AVIO FPGA Interface CPU Lens FPGA Interface EEPROM reserve reserve [Data2] Major Version [Data3] Minor Version [Data4] (Debug Build) (Release Build) [Data5] (Revision) [data6] NTSC PAL	[Data1] Servo CPU CameraMain CPU Frontend FPGA Network CPU Backend FPGA Interface CPU Lens FPGA Interface EEPROM Camera EEPROM [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) (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

The content of the error varies depending on			
UE160	UE80, UE50, E40	UE100	UE150, HE145
00h No Error	00h No Error	03h Motor Driver Error	00h Normal
03h Motor Driver Error	03h Motor Driver Error	21h System Error	03h Motor Driver Error
21h System Error	21h System Error	22h Spec Limit Over	04h Pan Sensor Error
22h Spec Limit Over	22h Spec Limit Over	24h NET Life-monitoring Error	05h Tilt Sensor Error
25h BE Life-monitoring Error	24h NET Life-monitoring Error	29h CAM Life-monitoring Error	06h Controller RX Over run Error
30h NET Life-monitoring Error	25h BE Life-monitoring Error	31h Fan1 error	07h Controller RX Framing Error
31h Fan1 error	29h CAM Life-monitoring Error	33h High Temp	08h Network RX Over run Error
32h Fan2 error	31h Fan1 error(UE80)	36h Low Temp	09h Network RX Framing Error
33h High Temp	33h High Temp	40h Temp Sensor Error	17h Controller RX Command Buffer Overflow
36h Low Temp	36h Low Temp	41h Lens Initialize Error	19h Network RX Command Buffer Overflow
40h Temp Sensor Error	40h Temp Sensor Error	42h PT. Initialize Error	21h System Error
41h Lens Initialize Error	41h Lens Initialize Error	43h PoE++ Software auth. Timeout	22h Spec Limit Over
42h PT. Initialize Error	42h PT. Initialize Error	50h MR Level Error	23h FPGA Config Error
43h PoE++ Software auth. Timeout	43h PoE++ Software auth. Timeout (UE80)	52h MR Offset Error	24h NET Life-monitoring Error
50h MR Level Error	45h PoE+ Software auth. Timeout	57h Gyro Error	25h BE Life-monitoring Error
52h MR Offset Error	(UE50/UE40)	58h PT. Initialize Error	26h IF/BE UART Buffer Overflow
55h PT. Gear Error	47h USB Streaming Error (UE50/UE40)		27h IF/BE UART Framing Error
57h Gyro Error	50h MR Level Error	UR100	28h IF/BE UART Buffer Overflow
58h PT. Initialize Error	52h MR Offset Error	03h Motor Driver Error	29h CAM Life-monitoring Error
60h Update Firmware Error	57h Gyro Error	21h System Error	31h Fan1 error
61h Update Hardware Error	58h PT. Initialize Error	22h Spec Limit Over	32h Fan2 error
62h Update Error		24h NET Life-monitoring Error	33h High Temp
63h Update Fan Error		25h BE Life-monitoring Error	36h Low Temp
		29h CAM Life-monitoring Error	40h Temp Sensor Error
		31h Fan1 error	41h Lens Initialize Error
		32h Fan2 error	42h PT. Initialize Error
		33h High Temp	50h:MR Level Error
		36h Low Temp	52h:MR Offset Error
		39h Wiper Error	53h:Origin Offset Error
		40h Temp Sensor Error	54h:Angle MR Sensor Error
		41h Lens Initialize Error	55h:PT. Gear Error
		42h PT. Initialize Error	56h:Motor Disconnect Error
		43h PoE++ Software auth. Timeout	
		50h MR Level Error	
		52h MR Offset Error	
		57h Gyro Error	
		58h PT. Initialize Error	

▼#RER(Continued)

The content of the error varies depending on the model

ne content of the error varies depending on the		1	
HR140	UE70series, HE42 Series, HE40 Series	HE120	HE50
00h : Normal	00h Normal(No Error)	00h : Normal	00h : Normal
03h: Motor Driver Error	03h Motor Driver Error	03h:Motor Driver Error	03h: Motor Driver Error
04h:Pan Sensor Error	04h Pan Sensor Error	04h:Pan Sensor Error	04h:Pan Sensor Error
05h: Tilt Sensor Error	05h Tilt Sensor Error	05h:Tilt Sensor Error	05h: Tilt Sensor Error
06h: Controller RX Over run Error	06h IF/FPGA UART Over run Error	06h:Controller RX Over run Error	06h:Controller RX Over run Error
07h: Controller RX Framing Error	07h IF/FPGA UART Framing Error	07h:Controller RX Framing Error	07h:Controller RX Framing Error
08h:Network RX Over run Error	08h IF/NET UART Over run Error	08h:Network RX Over run Error	08h:Network RX Over run Error
09h:Network RX Framing Error	09h IF/NET UART Framing Error	09h:Network RX Framing Error	09h: Network RX Framing Error
17h:Controller RX Command Buffer Overflow	17h IF/FPGA UART Buffer Overflow	17h: Controller RX Command Buffer	17h:Controller RX Command Buffer
19h:Network RX Command Buffer Overflow	19h IF/NET UART Buffer Overflow	Overflow	Overflow
21h: System Error	21h System Error(IF/SERVO Error)	19h:Network RX Command Buffer Overflow	19h: Network RX Command Buffer
22h:Spec Limit Over	22h PT Limit Over	21h:System Error	Overflow
23h: FPGA Config Error	24h NET Life-monitoring Error	22h:Spec Limit Over	21h: System Error
25h: CAMERA communication Error	25h BE Life-monitoring Error	23h: FPGA Config Error	22h:Spec Limit Over
26h: CAMERA RX Over run Error	26h IF/BE UART Buffer Overflow	24h: Network communication Error	23h: FPGA Config Error
27h: CAMERA RX Framing Error	27h IF/BE UART Framing Error	25h:Lens Initialize Error	24h: Network communication Error
28h: CAMERA RX Command Buffer Overflow	28h IF/BE UART Buffer Overflow		30h:Lvds_Adjustmet_NG
31h:Fan1 Error	29h CAM Life-monitoring Error		31h:Bar_Signal_Check_NG
32h:Fan2 Error		HE130	HE60
33h: High Temp		00h : Normal	00h : Normal
36h:Low Temp		03h: Motor Driver Error	03h: Motor Driver Error
39h: Wiper Error		04h:Pan Sensor Error	04h:Pan Sensor Error
40h:Temp Sensor Error		05h:Tilt Sensor Error	05h: Tilt Sensor Error
41h Lens Initialize Error		06h:Controller RX Over run Error	06h: Controller RX Over run Error
42h PT. Initialize Error		07h:Controller RX Framing Error	07h: Controller RX Framing Error
50h: MR Level Error		08h: Network RX Over run Error	08h: Network RX Over run Error
51h: GYRO Initial Error		09h: Network RX Framing Error	09h: Network RX Framing Error
52h:MR Offset Error		17h : Controller RX Command Buffer	17h: Controller RX Command Buffer
53h: Origin Offset Error		Overflow	Overflow
		19h:Network RX Command Buffer Overflow	19h: Network RX Command Buffer
		21h:System Error	Overflow
		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 Error
		27h: CAMERA RX Framing Error	30h:Lvds_Adjustmet_NG
		28h: CAMERA RX Command Buffer Overflow	31h:Bar_Signal_Check_NG
			32h:H_Sync_Check_NG
			33h:HDMI_Check_NG
		23h:FPGA Config Error 25h:CAMERA communication Error 26h:CAMERA RX Over run Error 27h:CAMERA RX Framing Error	22h:Spec Limit Over 23h:FPGA Config Error 24h:Network communication E 30h:Lvds_Adjustmet_NG 31h:Bar_Signal_Check_NG 32h:H_Sync_Check_NG

▼XSF

Parameter meaning var between control command and response for confirmation command

UE160

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

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

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

UE4

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

UB300

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

UE20/HE20

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

▼#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	