

## SAMSUNG

Consumer RS232 Control Worksheet



Most Samsung Consumer TVs can be controlled via RS232. Control can be through the USB port using a Samsung proprietary dongle or via the native 3.5mm ExLink port. Some models are not supported, however. Some of the Samsung Entry-Level TVs may have chipset limitations that prevent complete control from Serial Commands.

If the Samsung TV has a native 3.5mm ExLink port (currently Q70 and above) there are no additional settings that need to be adjusted in the TV, just plug and play. Using a model that requires the USB dongle (8000 or Q60) means a few settings in the TV need to be turned on for control to work.

### Setting up the USB to ExLink Dongle

- 1. With a Samsung IR remote.
- 2. While the TV is in the Off state hit Mute -1 8 2 Power
- 3. In the Service Menu navigate to Control Sub Option
- 4. Ensure **EXT Link Support** and **USB Serial** options are **ON**

Serial Log On/Off	
Watchdog	ON
Fast Boot in Production	OFF
USB Serial	ON



- 5. Once the options are turned on in the service menu, power off the TV for them to be set.
- 6. \*\*Try switching the USB Port if you have any issues with control!



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Samsung Consumer models will use a string of hex numbers to form a command line. These commands are different than those used in the Commercial models. A full list of the commands can be found at the end of this document.

# 08x22x00x00x001xD5 (OFF)

08x22 are fixed and will be the same for every consumer display command.

The middle 4 are the command. See command list at the end of this document. The last number will be the Checksum. This is a calculated number based on the command. See below.

### **Calculating a Checksum**

The Checksum is calculated by adding all numbers in the command line and subtracting the total from 256 (FF+1). Using the Off Command:



If we add everything up we get 43 (2B in Hex). We take 256 and subtract 43 to get 213. Converting that back to Hex gives us D5. There it is, your Checksum is **D5**.

The 3.5mm pin-out is as follows:

- Tip: Received Data (2)
- Ring: Transmitted Data (3)
- Sleeve: Ground (5)





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#### Check RS232 Via Your Computer.

Samsung Test App is a great tool for quick and easy testing. You can test commands, port activity, USB dongle, checksums, etc.

- Download the app <u>SamTvControlLite.zip</u> 1.
- Connect your computer's COM Port to the TV's 3.5mm ExLink port 2.
- Launch the app to start testing! 3.

1. Choose the **RS232** Port Select (the PC must be connected) and click "Connect"

1. Use either the Direct Command or Group Commands to control the display

1. After sending, the app should display the command line and receive a "success" feedback

		-030CF1 /
🖳 Samsung TV Contol	– 🗆 X	Samsung TV Contol – – ×
RS232 Connections Connect Disconnect	Direct Command	RS232_Connections Direct Command
RS232 Port Select	Send	RS232 Port Select Send
COM3 Commands GROUP SubGROUP Sub-S	SubGROUP	Commands GROUP SubGROUP Sub-SubGROUP

Send			Send
	^	Sending: 0x08 0x22 0x00 0x00 0x00 Sending: 0x08 0x22 0x00 0x00 0x00	0x02 0xD4 Receiving: 03 0C F1 0x01 0xD5 Receiving: 03 0C F1
	~		

Image: Control	General	Power	Power						Comment	KEY Map	Value
Dat         Dat <thdat< th=""> <thdat< th=""> <thdat< th=""></thdat<></thdat<></thdat<>	Gonordi		Off		0,00	0,00	0,00	0x00		KEY_SOURCE	0x01
Dota:         Nod         Dot         Dot <thdot< th=""> <thdot< td="" th<=""><td></td><td></td><td>On</td><td></td><td></td><td></td><td></td><td>0x02</td><td></td><td>KEY_POWER</td><td>0x02</td></thdot<></thdot<>			On					0x02		KEY_POWER	0x02
Anno         Anno <th< td=""><td></td><td>Volume</td><td></td><td></td><td>0x01</td><td>0x00</td><td>0x00</td><td>(0~100)</td><td></td><td>KEY_SLEEP KEY 1</td><td>0x03</td></th<>		Volume			0x01	0x00	0x00	(0~100)		KEY_SLEEP KEY 1	0x03
Jac.         Dec.         Jac.         Jac. <thjac.< th="">         Jac.         Jac.         <th< td=""><td></td><td></td><td>Down</td><td></td><td></td><td></td><td>0x01</td><td>0x00 0x00</td><td></td><td>KEY 2</td><td>0x04</td></th<></thjac.<>			Down				0x01	0x00 0x00		KEY 2	0x04
D.         Dec         Dec <thdec< th=""> <thdec< th=""> <thdec< th=""></thdec<></thdec<></thdec<>		Mute			0x02	0x00	0x00	0x00		KEY_3	0x06
Contact with a set of the s		Ch.	Direct		0x04		0x00	-		KEY_VOLUP	0x07
Parte         Product			Continuous	Up	0x03	0x00	0x01	0x00		KEY_4 KEY_5	0x08
Product         Product <t< td=""><td>Input</td><td>Source List</td><td>TV</td><td>TV</td><td>0x0a</td><td>0x00</td><td>0x02</td><td>0x00</td><td></td><td>KEY_6</td><td>0x03</td></t<>	Input	Source List	TV	TV	0x0a	0x00	0x02	0x00		KEY_6	0x03
Image: Problem         Control			AV	AV1			0x01	0x00		KEY_VOLDOWN	0x0B
Private         Private <t< td=""><td></td><td></td><td></td><td>AV2</td><td></td><td></td><td></td><td>0x01</td><td></td><td>KEY_7</td><td>0x0C</td></t<>				AV2				0x01		KEY_7	0x0C
Image: second			S-Video	S-Video1			0x02	0x02		KEY 9	0x0D
Composed         Composed         Control         Contro         Control         Control         <				S-Video2				0x01		KEY_MUTE	0x0F
Low prime         Discription         Discription <thdiscription< th=""> <thdiscription< th="">         &lt;</thdiscription<></thdiscription<>			Component	S-Video3			0,402	0x02		KEY_CHDOWN	0x10
Image: Control in the second in the			Component	Component?			0x03	0x00		KEY_U KEY_CHUP	0x12
PC         PC<				Component3				0x02		KEY_PRECH	0x13
Image: second			PC	PC1			0x04	0x00		KEY_GREEN	0x14
$ \begin base of the set of the $				PC2 PC3				0x01		KEY_YELLOW	0x15
Image: Process of the second			HDMI	HDMI1			0x05	0x00		KEY_MENU	0x1A
Image: Problem				HDMI2				0x01		KEY_TV	0x1E
				HDMI3				0x02		KEY_INFO	0x1F
No.         No.         And         No.         And         No.         No. <td></td> <td></td> <td>DVI</td> <td>DVI1</td> <td></td> <td></td> <td>0x06</td> <td>0x03</td> <td></td> <td>KEY_CAPTION</td> <td>0x25</td>			DVI	DVI1			0x06	0x03		KEY_CAPTION	0x25
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Baser         Description in the second mean of the secon				DVI3			007	0x02		KEY_EXIT	0x2D
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Material			Movie					0x02		KEY_EMANUAL	0x3F
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Picture         Picture <t< td=""><td></td><td></td><td>CAL-DAY</td><td></td><td></td><td></td><td></td><td>0x04 0x05</td><td></td><td>KEY_REC</td><td>0x47 0x49</td></t<>			CAL-DAY					0x04 0x05		KEY_REC	0x47 0x49
			BD Wise					0x06		KEY_PAUSE	0x4A
Brance         Brance<			Relax					0x07		KEY_TOOLS	0x4B
Contract         Control         Contro         Control <thcontrol< th=""> <th< td=""><td></td><td>Brightness</td><td></td><td>0~50</td><td></td><td>0x01</td><td>0x00</td><td>(0~50)</td><td>Backlight</td><td>KEY GUIDF</td><td>0x4F</td></th<></thcontrol<>		Brightness		0~50		0x01	0x00	(0~50)	Backlight	KEY GUIDF	0x4F
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Shadou balai         Particinant		Contrast		0~100		0x02	0x00	(0~100)		KEY_RETURN	0x58
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Octor         Octor         Outor         Outor         Outor         Other action of the contract of the		Sharpness		0~100		0x04	0x00	(0~100)		KEY_UP	0x60
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The second performance of the second performanc		Tint	G/B			0×06	0×00	(0~30)	Range changed	KEY RIGHT	0x62
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Image         Image <th< td=""><td></td><td>Advanced Settings</td><td>Dynamic Contrast</td><td>Off</td><td></td><td>0x07</td><td>0x01</td><td>0x00</td><td></td><td>KEY_LEFT</td><td>0x65</td></th<>		Advanced Settings	Dynamic Contrast	Off		0x07	0x01	0x00		KEY_LEFT	0x65
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Green         Blue         0x06         0x08           Cohr Space         Aun         0x06         0x06         0x01           Marce         None         0x06         0x06         0x01           White Balance         R-Offset         0x07         (-50-50)         0x07           R-Cala         0x08         0x08         (-50-50)         0x08         0x08           R-Cala         0x08         (-50-50)         0x08         (-50-50)         0x08           R-Cala         0x08         (-50-50)         0x08         (-50-50)         0x08         0x02         0x08         0x02				Red				0x01		KEY_PAGE_RIGHT	0xA9
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Native         Native $0$			Color Space	Auto			0x06	0x00			_
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Image: second				G-Offset			0x07 0x08	(-50~50)			
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Mation Lighting         Off         Color Space Custom Color         Ped         Ox11         Ox00           Gener Space Custom Color         Red         0x12         0x00         0x01         0x01           Bue         Green         0x01         0x02         0x02         0x03           Color Space Custom Red         Oren         0x03         0x04         0x04         0x04           Color Space Custom Green         O-100         0x13         0-100         0x04         0x04           Color Space Custom Green         O-100         0x14         0-100         0x04         0x04           Color Space Custom Bee         O-100         0x15         0-100         0x16         0x06           Color Space Custom Beet         O-100         0x16         0x06         0x02         0x04           Color Space Custom Reset         On         On         0x04         0x00         0x02         0x03           HDR+         Off         Ox00         Ox03         0x01         0x02         0x03         0x01         0x02         0x01         0x01         0x02         0x01         0x01         0x02         0x01         0x02         0x01         0x01         0x02         0x01         0x01				Reset			0x0d	0x00			
Un         Un $0x01$ Gloor Space Custom Color         Green $0x01$ $0x01$ Green         Green $0x01$ $0x01$ Hue $0x03$ $0x03$ $0x03$ Color Space Custom Red $0-100$ $0x13$ $0-100$ Color Space Custom Red $0-100$ $0x13$ $0-100$ Color Space Custom Blue $0-100$ $0x14$ $0-100$ Color Space Custom Blue $0-100$ $0x15$ $0-100$ Color Space Custom Blue $0-100$ $0x15$ $0-100$ Color Space Custom Ren $0-100$ $0x15$ $0-100$ Color Space Custom Ren $0-100$ $0x15$ $0-100$ Color Space Custom Reset $0x02$ $0x01$ $0x02$ Color Space Custom Reset $0x02$ $0x02$ $0x02$ Color Space Custom Reset $0x04$ $0x01$ $0x02$ Color Space Custom Reset $0x04$ $0x01$ $0x02$ Color Space Custom Reset $0x04$ $0x01$ $0x02$			Motion Lighting	Off			0x11	0x00			
Open Database         Open Database         Open Database         Open Database         Open Database           Blue         Blue         0x02         0x03         0x04         0x03           Vellow         0x03         0x04         0x03         0x04         0x03           Color Space Custom Red         0~100         0x13         0~100         0x14         0~100           Color Space Custom Green         0~100         0x15         0~100         0x14         0~100           Color Space Custom Red         0~100         0x15         0~100         0x15         0~100           Color Space Custom Reset         0~100         0x15         0~100         0x16         0x00           Color Space Custom Reset         0x04         0x01         0x16         0x00         0x01           Local Dimming         Low         0x00         0x00         0x01         0x02         0x02           Local Dimming         Standard         0         0x00         0x01         0x02         0x01           Local Dimming         Color Space Custom Reset         0         0x00         0x00         0x01         0x02         0x01         0x02         0x02         0x01         0x02         0x02         0x01 <td></td> <td></td> <td>Color Space Custom Color</td> <td>Un Red</td> <td></td> <td></td> <td>()x12</td> <td>UXU1 0x00</td> <td></td> <td></td> <td></td>			Color Space Custom Color	Un Red			()x12	UXU1 0x00			
Blue         Ox02           Yelow         0x03           Open         0x04           Open         0x05           Color Space Custom Red         0x100           Color Space Custom Bite         0x13           Open         0x14           Color Space Custom Bite         0x100           Color Space Custom Bite         0x100           Color Space Custom Reset         0x15           TS%         0x10           Color Space Custom Reset         0x06           Color Space Custom Reset         0x12           Color Space Custom Reset         0x13           Uccal Dimming         Low           Standard         0x02           Minimum Bightness         0x16           On         0x17           Minimum Bightness         0x16           Off         0x07           Ort1         0x00           Optimum Bightnes         0x17           Ort2         0x17           On         0x17           On         0x17           On         0x00           On         0x01           On         0x17           On         0x01           On<				Green			5712	0x01			
Velow         0x03           Cyan         0x04           Magenta         0x05           Color Space Oustom Red         0~100         0x13           Color Space Custom Green         0~100         0x14         0~100           Color Space Custom Bue         0~100         0x14         0~100           Color Space Adjustment Point         50%         0x01         0x02           Color Space Adjustment Point         50%         0x01         0x02           Color Space Custom Reset         0x16         0x02         0x02           Color Space Custom Reset         0x16         0x02         0x02           Local Dimming         Low         0x08         0x01         0x02           High         0         0x02         0x03         0x01         0x03           Minimum Bightness         0~50         0x0C         0x01         0x01         0x01           Minimum Bightness         0rf         0x07         0x16         0x01         0x01         0x01           Minimum Bightness         0rf         0x07         0x16         0x01         0x				Blue				0x02			
Cyait         Cyait         Count           Magenta         0.005         0.005           Color Space Custom Red         0~100         0.x13         0~100           Color Space Custom Blue         0~100         0.x15         0~100           Color Space Adjustment Point         50%         0.x15         0~100           Color Space Adjustment Point         75%         0.x15         0~100           Color Space Custom Reset         0.x16         0.x02         0.x02           Color Space Custom Reset         0.x16         0.x00         0.x02           Local Dimming         Low         0.x0b         0.x0         0.x02           Minum Brightness         0~50         0.x0         0.x00         0.x02           Minum Brightness         0~50         0.x00         0.x00         0.x01           Minum Brightness         0~50         0.x00         0.x00         0.x01           Minum Brightness         0~50         0.x07         0.x16         0.x01           Minum Brightness         0~50         0.x07         0.x16         0.x01           Minum Brightness         0~50         0.x07         0.x16         0.x01           Minum Brightnese         0.x07         0.x16				Yellow				0x03			_
Color Space Custom Red         0~100         0x13         0~100         0x14         0~100           Color Space Custom Blue         0~100         0x15         0~100         0x16         0~100         0x16         0x00         0x16         0x00         0x16         0x00         0x16         0x00         0x16         0x00         0x16         0x02         0x01         0x01         0x01         0x01         0x02         0x0				Magenta				0x04			
Color Space Custom Green         0~100         0x14         0~100         0x14         0~100           Color Space Adjustment Point         50%         0x1b         0x00         0x00         0x16         0x00			Color Space Custom Red	0~100			0x13	0~100			
Color space displace disp			Color Space Custom Green	0~100			0x14	0~100			_
T5%         D <thd< th="">         D         <thd< th=""> <thd< th=""></thd<></thd<></thd<>			Color Space Adjustment Point	50%			0x15	0x00			
Image: Construct Space Custom Reset         100%         Image: Construct Space Custom Reset         0x02         0x00         Image: Construct Space Custom Reset         0x00         0x00         0x00         0x00         Image: Construct Space Custom Reset         0x00         0x00         0x00         0x02         0x02         Image: Construct Space Custom Reset         0x00         0x02         0x02         0x02         Image: Construct Space Custom Reset         0x02         Image: Construct Space Custom Reset         0x02         Image: Construct Space Custom Reset         0x01         Image: Construct Space Custom Reset         0x03         Image: Construct Space Custom Reset         0x01         Image: Construct Space Custom Reset         0x0				75%				0x01			
			Color Change Custom Devel	100%			01	0x02			
Standard         Standard         Ox02         Ox17         Ox02           High         Off         Ox08         0x00         Ox03         Image: Comparison of the standard			Local Dimming	Low		0x0h	0x1C	0x00 0x01			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				Standard		5.00	5,111	0x02			
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				High		0. 01	0.05	0x03			
Minimum Brightness $0 \sim 50$ $0 \times 00$ MinimumAmbient Light Detection (Eco sensor)Off $0 \times 00$ $0 \times 00$ $0 \times 00$ 10p White BalanceOn $0 \times 07$ $0 \times 16$ $0 \times 00$ $0 \times 01$ 10p White BalanceOn $0 \times 07$ $0 \times 16$ $0 \times 00$ $0 \times 00$ 10p White BalanceOn $0 \times 07$ $0 \times 16$ $0 \times 00$ $0 \times 00$ 10p White BalanceOn $0 \times 07$ $0 \times 16$ $0 \times 00$ $0 \times 00$ 10p White BalanceOn $0 \times 07$ $0 \times 17$ $(1 \sim 10)$ $0 \times 00$ 10p White BalanceRed $0 \times 07$ $0 \times 18$ $(-50 \sim 50)$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 10$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 10$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOff $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White BalanceOn $0 \times 00$ $0 \times 16$ $0 \times 00$ $(-50 \sim 50)$ 10p White Balance $0 \times 00$ $0 \times 16$				On		UXUb	UX0B	0x00 0x01			_
Ambient Light Detection (Eco sensor)       Off $0x0D$ $0x0D$ $0x0D$ $0x0D$ $0x0D$ On       0n       0x01       0x01 <t< td=""><td></td><td></td><td>Minimum Brightness</td><td>0~50</td><td></td><td></td><td>0x0C</td><td>(0~50)</td><td>Minimum</td><td></td><td></td></t<>			Minimum Brightness	0~50			0x0C	(0~50)	Minimum		
On $0x01$ $0x01$ $0x01$ 10p White Balance         Off $0x07$ $0x16$ $0x00$ 0         On $0x07$ $0x16$ $0x00$ 1         On $0x07$ $0x16$ $0x00$ 1         On $0x07$ $0x17$ $(1\sim10)$ 1         Interval $0x07$ $0x18$ $(-50~50)$ 1         Interval $0x00$ $0x16$ $0x00$ 1         Interval $0x00$ $0x16$ $0x00$ 1         Interval $0x00$ $0x16$ $0x01$ 1         Interval $0x00$ $0x16$ $0x01$ 1         Interval $0x00$ $0x16$ $0x01$			Ambient Light Detection (Eco sensor)	Off			0x0D	0x00			
IntervalOnOx 10Ox 00Ox 00Ox 00Image: IntervalOnOx 07Ox 16Ox 01Image: IntervalOx 07Ox 17Image: IntervalImage:			10n White Release	On Off		$0 \times 07$	0.16	0x01			
Interval         0x07         0x17         (1~10)           Red         0x07         0x18         (-50~50)           Green         0x07         0x1a         (-50~50)           Blue         0x07         0x1a         (-50~50)           Blue         0x07         0x1a         (-50~50)           Constrained         Blue         0x07         0x1a         (-50~50)           Description         Blue         0x07         0x1a         (-50~50)           Description         On         0x0e         0x16         0x00           On         0x0e         0x16         0x01         0x01           Interval         0x0e         0x17         (1~20)         0x14           Interval         0x0e         0x18         (-50~50)         0x14           Interval         0x0e         0x14         (-50~50)         0x14				On		0x07	0x16	0x00			_
Red       0x07       0x18       (-50~50)         Image: Constraint of the state of the sta				Interval		0x07	0x17	(1~10)			
Green         Ux 07         UX 19         (-50~50)           Image: Solution of the state of the s				Red		0x07	0x18	$(-50 \sim 50)$			
Reset       0x00       0x1b       0x00       0x1b       0x00       0x1b       0x00       0x1b       0x00       0x00       0x1b       0x00       0x01       0x00       0x01       0x00       0x01       0x00       0x01       0x00       0x01       0x00       0x17       (1~20)       0x00       0x18       (-50~50)       0x00       0x18       (-50~50)       0x00       0x19       (-50~50)       0x00       0x10       0x00				Blue		0x07	0x19	(-50~50) (-50~50)			_
20p White Balance       Off       0x0e       0x16       0x00       0x01       0x0				Reset		0x00	0x1b	0x00			
On       0x 0e       0x 16       0x 01         Interval       0x 0e       0x 17       (1~20)         Red       0x 0e       0x 18       (-50~50)         Green       0x 0e       0x 19       (-50~50)         Blue       0x 0e       0x 1a       (-50~50)			20p White Balance	Off		0x0e	0x16	0x00			
Red     0x0e     0x17     (1 20)       Red     0x0e     0x18     (-50~50)       Green     0x0e     0x19     (-50~50)       Blue     0x0e     0x1a     (-50~50)				Un Interval		UXUe OxOe	UX16 0x17	UXU1 (1~20)			
Green     0x0e     0x19     (-50~50)       Blue     0x0e     0x1a     (-50~50)       Blue     0x0e     0x1b     0x00				Red		0x0e	0x18	(-50~50)			
Blue $0x0e$ $0x1a$ $(-50 \sim 50)$ Reset $0x0e$ $0x1b$ $0x00$				Green		0x0e	0x19	(-50~50)			
				Blue		0x0e	Ux1a Ov1h	(-50~50)			_

Pick DS9         DS9 DS2         Decay at the second	· ·		• · · · ·	•				Value	Comment	Кеу Мар
Name         Name <th< td=""><td></td><td>FICTURE UPTION</td><td>Color Lone</td><td>C001 Standard</td><td></td><td>uxUa</td><td>UX UU</td><td>UXUU</td><td></td><td></td></th<>		FICTURE UPTION	Color Lone	C001 Standard		uxUa	UX UU	UXUU		
Image: Control of the fact of t				Standard Warm1				0x01		
Del Solar Ler         Olino         Alex 2         Max 3         Max 4				Warm2				0x02		
Image: Section of the secti			Digital Noise Filter	Off			0x02	0x00		
Image         Image <th< td=""><td></td><td></td><td></td><td>Auto</td><td></td><td></td><td></td><td>0x04</td><td></td><td></td></th<>				Auto				0x04		
Image: Solution         Image: Sol			HDMI Black Level	Normal			0x04	0x00		
Product         Product <t< td=""><td></td><td></td><td></td><td>Low</td><td></td><td></td><td></td><td>0x01</td><td></td><td></td></t<>				Low				0x01		
Auto Boom Pia         One of Pia         One			Film Mode	Off			0x05	0x00		
Number of the state in the state i			Auto Motion Dhuo	Auto			0,406	0x02		
Image: state in the s			Auto Motion Plus	Auto			00.00	0x00		
Image: Section         Image:				Custom				0x04		
Image: state flag			Blur Reduction			0x0b	0x01	value		
Image: Process of the second			Judder Reduction				0x02	value		
Diff         Diff <thdiff< th="">         Diff         Diff         <thd< td=""><td></td><td></td><td>LED Clear Motion</td><td>Off</td><td></td><td></td><td>0x03</td><td>0x00</td><td></td><td></td></thd<></thdiff<>			LED Clear Motion	Off			0x03	0x00		
And Unit Lange and Hold Unit Lange Hold Uni				On				0x01		
International operation of the second operation ope			HDMI1 UHD Color Mode	Off			0x04	0x00		
File         File         Constraints         Gene         Constraints         Constraints           -         ICE         UCE         Constraints			HDMI2 LIHD Color Mode	Off			0x05	0x01		
Image: second				On			0,000	0x01		
Image: Proof of the second s			HDMI3 UHD Color Mode	Off			0x06	0x00		
Interview         Control Plane         Control Plan				On				0x01		
Duerer Adjantment         Pather Que			HDMI4 UHD Color Mode	Off			0x07	0x00		
Book Automation         Print & Print         Indition         Allow Field         Data         Allow Field         Data           Record Addian         Form         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         20000         2000 <t< td=""><td></td><td></td><td></td><td>On</td><td>0.01</td><td>0.0</td><td>0.01</td><td>0x01</td><td></td><td></td></t<>				On	0.01	0.0	0.01	0x01		
Cathorn         Frage         <		Screen Adjustment	Picture Size	16:9	0x0b	0x0a	0x01	0x00		
Image:         Image:         Control         Control <thcontrol< th=""> <thcontrol< th=""> <thcon< td=""><td></td><td></td><td></td><td>4.3</td><td></td><td></td><td></td><td>0x04</td><td></td><td></td></thcon<></thcontrol<></thcontrol<>				4.3				0x04		
Book Prove         Con         Origination         Origination         Origination         Origination           Allow 7500         Capert MO Call         Origination         Originatio			Fit to Screen	Off		0x0d	0x02	0x00		
Deel Nature Relative Rela				On		onou	ONOL	0x01		
Finance-SNR         Proceed-Place (Check         Proceed-Place (Check <thproced-place< th=""> <thproced-place< th=""> <t< td=""><td></td><td>Reset Picture</td><td>Reset Picture</td><td></td><td>0x0b</td><td>0x0b</td><td>0x00</td><td>0x00</td><td></td><td></td></t<></thproced-place<></thproced-place<>		Reset Picture	Reset Picture		0x0b	0x0b	0x00	0x00		
Image: section of the sectio		Factory-SVB	Expert-N/D Adj	On	0x0b	0x0d	0x00	0x00		
Image: Perture Made         The matrix is a segment of the second laboration of the secon				Off				0x01		
April Media         Alfonites         Alfonites         Other         Date         Date         Date         Date         Date           Pr         Pr<				Fix		-		0x02		
Image: Control of the stand sta		Apply Picture Mode	All Sources		0xb	0x0e	0x00	0x00		
Photo         Per         Ind         Hold         Hold         Land         Land <thland< th="">         Land         Land         L</thland<>		Din	Current Source	Off	0.01	000	000	Ux01		
Anterna         Anterna <t< td=""><td></td><td></td><td></td><td>UII On</td><td>UXUb</td><td>0x08</td><td>UX 00</td><td>UX00</td><td></td><td></td></t<>				UII On	UXUb	0x08	UX 00	UX00		
Star         Star         Star         Star         Star         Star         Star           Feator         Sound Select May         5004				Antenna			0x 01	0x01 Ovff		
Image:         Image:<				Size			0x02	0x11 Oxff		
Barter, Alein, Barter, B				Position			0x02	0xff		
Stand         Standskie         Outwall, bein				Sound_Select_Main			0x04	0x00		
Image: Cheme Ubs         Image: Cheme Ubs<				Sound_Select_Sub				0x01		
Comme Source         Comme Source<				Channel_Up			0x05	0x00		
Sound         Bound Made         Bound Part         Bound Part </td <td>-</td> <td></td> <td></td> <td>Channel_Down</td> <td></td> <td></td> <td></td> <td>0x01</td> <td></td> <td></td>	-			Channel_Down				0x01		
Image         Image <th< td=""><td>Sound</td><td>Sound Mode</td><td>Standard</td><td></td><td>0x0c</td><td>0x00</td><td>0x00</td><td>0x01</td><td></td><td></td></th<>	Sound	Sound Mode	Standard		0x0c	0x00	0x00	0x01		
Char Strong         Char Strong         Uteled           Analy         0         0.03         0.03         0.04           Equation         0         0.03         0.05         0.05         0.05           Equation         0.01         0.01         0.05         0.05         0.05         0.05           Barrow         0.01         0.01         0.05         0.02         0.05         0.02           Barrow         0.01         0.05         0.02         0.05         0.02         0.05           Barrow         0.05         0.02         0.05         0.02         0.05         0.02           Barrow         0.05         0.02         0.05         0.02         0.05         0.02         0.05         0.02         0.05         0.02         0.02         0.05         0.02         0.05         0.02         0.05         0.02			Music					0x02		
Arabit         Arabit         Arabit         Arabit         Arabit           Paultre         Nature         0.01         0.03			Movie Clear Voice					0x03	Updated	
Image: Continuous         Image: Continuous         Image: Continuous         Image: Continuous           PauePer         Prance         Prance         Prance         Prance         Prance           Image: Continuous         Image: Continuous         Image: Continuous         Image: Continuous         Prance           Image: Continuous         Image: Continuous         Image: Continuous         Image: Continuous         Image: Continuous         Image: Continuous           Image: Continuous         Image: Continuous         Image: Continu			Amplify					0x04		
Figure Prime         Processor         Out II         Do-reg           300° z         000° z         0.00         0.01         0.01         0.01           100 p         0.02         0.02         0.02         0.02         0.02           100 p         0.01         0.02         0.02         0.02         0.02         0.02           100 p         0.00         0.01         0.02         0.02         0.02         0.02           100 p         0.00         0.02         0.02         0.02         0.02         0.02           100 p         0.00         0.02         0.02         0.02         0.02         0.02           100 p         0.00         0.02         0.02         0.02         0.02         0.02           200 p         0.00         0.02         0.02         0.02         0.02         0.02           200 p         0.00         0.02         0.00         0.00         0.00         0.00         0.00         0.00           200 p         0.01         0.02         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00 <td< td=""><td></td><td></td><td>Optimized</td><td></td><td></td><td></td><td></td><td>0x06</td><td></td><td></td></td<>			Optimized					0x06		
100m2         0.001 <td< td=""><td></td><td>Equalizer</td><td>Balance</td><td></td><td></td><td>0x01</td><td>0x00</td><td>(0~20)</td><td></td><td></td></td<>		Equalizer	Balance			0x01	0x00	(0~20)		
a         0.00°         0.010         020         0.010         020           B         0.011         0.041         020         0.011         020           B         0.011         0.011         020         0.011         020           Equal cert73unel         0.001         020         0.011         020         0.011           Courter         0.000         0.012         020         0.011         020           D         0.000         0.012         0.012         020         0.011           D         0.000         0.020         0.020         0.020         0.020         0.020           D         0.000         0.020			100hz				0x01	(0~20)		
Image         Image <th< td=""><td></td><td></td><td>300hz</td><td></td><td></td><td></td><td>0x02</td><td>(0~20)</td><td></td><td></td></th<>			300hz				0x02	(0~20)		
Bhe         Bh			1khz				0x03	(0~20)		
Index         Index <th< td=""><td></td><td></td><td>3khz</td><td></td><td></td><td></td><td>0x04</td><td>(0~20)</td><td></td><td></td></th<>			3khz				0x04	(0~20)		
Laukizof ("kird)         Total         Color         Color         Color           Laukizof ("kird)         1002         0.00         0.000         0.000         0.000           2000         1049         0.000         0.000         0.000         0.000         0.000           2014         0.000         0.000         0.000         0.000         0.000         0.000           2014         0.000         0.000         0.000         0.000         0.000         0.000           Vitual Surord         On         0.000         0.000         0.000         0.000         0.000           2010         0.000         0.000         0.000         0.000         0.000         0.000           2010         0.000         0.000         0.000         0.000         0.000         0.000           2010         0.000         0.000         0.000         0.000         0.001         0.000           2010         10942         0.000         0.000         0.000         0.001         0.001           2010         10940         0.000         0.000         0.000         0.001         0.001         0.001           2010         10940         0.000         0.000			10khz				0x05	(0~20)		
Plane ex/Manay         Doday         Plane ex/Manay         Plane         Plane           1049         2009         0.000		Equalizar(ZDand)					0x06	000		
Image: Second		Equalizer(7Band)	100nz 200hz				0x07	$(0 \sim 20)$		
Image: Section of the sectin of the section of the section			500hz				0x08	(0~20)		
Image: series of the			1KHz				0x0A	(0~20)		
Sinde         Sinde         Ox00         <			2KHz				0x0B	(0~20)		
Interface         0x00         0x00         0x00         0x00           StR5 TruSuround HD         Ort         0x01         0x01         0x01           Virtual Surround         Ort         0x01         0x01         0x01           StR5 TruSuround HD         Ort         0x01         0x01         0x01           Datag Carly         On         0x01         0x01         0x01           Preferred Language         English         0x01         0x01         0x01           Franch         0         0x01         0x01         0x01           Mult=Track Sound         Moreon         0x02         0x01         0x01           Spester Stelect         TV Spester         0x01         0x01         0x01           Spester Stelect         TW Spester         0x01         0x01         0x01           Sound Stelect         Mann         0x06         0x00         0x01           Sound Stelect         Mann         0x06			5KHz				0x0C	(0~20)		
SRS TruSurond I/D         Off         Off         Ovel         0x01           SRS TruDiking         OH         0x03         0x01         0x01           Datage (Batty         On         0x03         0x01         0x01           Prefered Language         English         0x04         0x01         0x02         0x01           Mult=Track Sound         Morean         0x05         0x00         0x02         0x01           Mult=Track Sound         Morean         0x05         0x00         0x02         0x01           Separate         Separate         0x05         0x00         0x02         0x01           Separate         Separate         0x06         0x00         0x01         0x02           Separate         Separate         Separate         0x01         0x01         0x01           Sound Seport         0x01         0x01         0x01         0x01         0x01           Sound Seport         Moin         0x02         0x00         0x00         0x01           Sound Seport         Moin         0x00         0x00         0x00         0x01           Sound Seport         Moin         0x00         0x00         0x00         0x01           <			10KHz				0x0D	(0~20)		
Virual Surrand         Ori         Def         Def         Def         Def           Defog Carly         Ori         0.01         0.021         0.01         0.01           Prefered Language         English         0.04         0.021         0.021         0.01           Mult=Track Sound         0.04         0.021         0.021         0.021         0.021           Mult=Track Sound         Mono         0.025         0.00         0.024         0.021           Auto Volume         Ori         0.025         0.00         0.026         0.00         0.021           Sceaker Select         TV Speaker         0.01         0.026         0.00         0.021         0.01         0.021           Sound Select         Mult         0.001         0.000         0.001         0.001         0.001         0.001           Sound Select         Mult         0.001         0.000         0.001         0.001         0.001           Sound Reaet         Sound Pleaet         0.000         0.000         0.001         0.001         0.001         0.001           Auto Delay         Dealy Value (0-250)         D.000         0.000         0.000         0.001         0.001         0.001		SRS TruSurround HD	Off			0x02	0x00	0x00		
SHS Including         OH         Oxd3         Oxd3         Oxd3         Oxd3           Deleting Certy         Chain         - <td></td> <td>Virtual Surrond</td> <td>On</td> <td></td> <td></td> <td></td> <td></td> <td>0x01</td> <td></td> <td></td>		Virtual Surrond	On					0x01		
Jakeg Langu         On         Out         Out           Preferred Language         English Sparielin         0x04         0x00         0x01           French Korsan         Jappinsee         0x05         0x00         0x01           Multi-Track Sound         Mono         0x06         0x00         0x01           Stere         0x06         0x00         0x01         0x02           Auto Volume         Off         0x06         0x00         0x01           Scene         0x06         0x00         0x01         0x01           Sound Select         TV Spesier         0x07         0x00         0x01           Sound Select         Manual         0x06         0x00         0x01           Auto Volume         Suid         0x04         0x00         0x01           Sound Select         Manual         0x02         0x00         0x01           Auto Dalay         Dealy Value (0~250)         0x0d         0x00         0x01           Auto Dalay         Dealy Value (0~250)         0x0d         0x00         0x01           GSD         Enable/Disable Cmd Result OSD         Baable         0x06         0x01         0x00           Vicieo Player         Pause		SRS TruDialog				0x03	0x00	0x00		
Predicted Larguage         Englan         Dock         Dock <thdock< th="">         Dock         Dock<!--</td--><td></td><td>Dialog Ciarity Professed Lenguage</td><td>Un Engligh</td><td></td><td></td><td>0×04</td><td>0×00</td><td>0x01</td><td></td><td></td></thdock<>		Dialog Ciarity Professed Lenguage	Un Engligh			0×04	0×00	0x01		
French Korean         Good         Good           Multi-Track Sound         Mono         0x05         0x00         0x04           Multi-Track Sound         Mono         0x05         0x00         0x04           Auto Volume         Off         0x05         0x00         0x02           Auto Volume         Off         0x06         0x00         0x01           Speaker Select         TV Speaker         0x07         0x00         0x01           Sound Select         Main         0x08         0x00         0x01           Sound Select         Main         0x09         0x00         0x01           Auto Stereo         Marul         0x00         0x00         0x00         0x01           Sound Reset         Sound Reset         0x00         0x00         0x00         0x01           Auto         Dealy Value (0-250)         0x03         0x00         0x01         0x01           KEY         Key Generation         0x04         0x00         0x00         0x01         0x01           Auto         Deale/Deale/         0x06         0x00         0x01         0x01         0x01           Multi-Track Sound         Ox00         0x00         0x00         0x		n reneme u Language	Spanish			07.04	UVVU	0x00 0x01		
Korean         Bananse         Book         Book           Multi-Track Sound         Mond         0x03         0x04         0x04           Multi-Track Sound         Mond         0x05         0x00         0x01           Auto Volume         Off         0x06         0x00         0x01           Auto Volume         Off         0x08         0x00         0x01           Speaker Select         TV Speaker         0x01         0x01         0x01           Sound Select         Main         0x08         0x00         0x01           Sound Reset         Sound Reset         0x01         0x01         0x01           Auto Volume         Ox09         0x00         0x01         0x01           Auto         Sound Reset         Sound Reset         0x00         0x01           Auto Stereo         Maruel         0x00         0x00         0x01			French					0x02		
Image: space in the s			Korean					0x03		
Multi-Track Sound         Mono         Dx05         Dx00         Dx01           Auto Volume         SAP         0x05         0x00         0x01         0x02           Auto Volume         Off         0x06         0x00         0x01         0x01           Speaker Select         TV Speaker         0x01         0x01         0x01         0x01           Sound Select         Main         0x08         0x00         0x00         0x01           Sound Reset         Sound Reset         0x00         0x00         0x01           Auto Volume         Ox00         0x00         0x00         0x01           Auto Select         Main         0x08         0x00         0x00           Sound Reset         Sound Reset         0x00         0x00         0x00           Auto Select         Manual         0x00         0x00         0x01           Auto Select         Manual         0x00         0x00         0x01           Auto Select         Manual         0x00         0x00         0x01           Auto Select         Manual         0x00         0x00         0x01         0x01           Auto Select         Manual         0x00         0x00         0x01			Japanese					0x04		
Stereo         Ox01         Ox02           Auto Volume         Off         Ox06         0x00         0x00           Speaker Select         TV Speaker         0x07         0x00         0x01           Speaker Select         TV Speaker         0x07         0x00         0x01           Audio Out         External Speaker         0x01         0x01         Not supported           Audio Cot         Sound Select         Main         0x08         0x00         0x01           Sound Reset         Soudh         0x00         0x00         0x00         0x00           Audio Delay         Dealy Value (0~250)         0x0d         0x00         0x00         0x00           Audio Delay         Dealy Value (0~250)         0x0d         0x00         0x00         0x00           KEY         Key Generation         0x04         0x00         0x00         0x00         0x00           Others         Art Mode         OFF         0x0b         0x0b         0x00         0x01           Miber Mode         OFF         0x0b         0x00         0x00         0x01         0x01           Video Player         Pause         0x06         0x00         0x00         0x00         0x01 <td></td> <td>Multi-Track Sound</td> <td>Mono</td> <td></td> <td></td> <td>0x05</td> <td>0x00</td> <td>0x00</td> <td></td> <td></td>		Multi-Track Sound	Mono			0x05	0x00	0x00		
Auto Volume         GMP         Order         Ox00         Ox00           Auto Volume         Off         0x00         0x00         0x00           Speaker Select         TV Speaker         0x07         0x00         0x00           Speaker Select         TV Speaker         0x01         0x01         Not supported           Sound Select         Man         0x08         0x00         0x00           Sound Reset         0x01         0x01         0x01           Auto Stereo         Manul         0x08         0x00         0x00           Auto Delay         Dealy Value (0~250)         0x01         0x00         0x00           KEY         Key Generation         0x01         0x00         0x00         0x00           CSD         Enable/Disable Cmd Result OSD         Disable         0x0b         0x00         0x00         0x00           Mode         OFF         0x0b         0x00         0x00         0x00         0x00         0x00           Mema         0x0         0x00         0x00         0x00         0x00         0x00         0x00         0x00           Auto         Dealy Value (0~250)         Disable         0x01         0x00         0x00			Stereo					0x01		
Auto volume         Ott         Ox0         Ox00         Ox00           Speaker Select         TV Speaker         0x07         0x00         0x00         0x01           External Speaker         0x01         0x00         0x00         0x01         Not supported           Audio Out         0x08         0x00         0x01         Not supported         0x01           Sound Select         Main         0x08         0x00         0x01         0x01           Auto Stereo         Manual         0x08         0x00         0x00         0x01         0x01           Audio Delay         Dealy Value (0~250)         0x02         0x00         0x00         0x00         0x00           KEY         Key Generation         0x08         0x00         0x00         0x00         0x00         0x00           Meter Mode         OFF         0x00         0x00         0x00         0x01         0x01           Mode Mode         OFF         0x00         0x00         0x01         0x00         0x01         0x01           Meter Mode         OFF         0x00         0x00         0x01         0x01         0x01         0x01         0x01           Meter Mode         OFF         <			SAP		<b> </b>	0.07	0.05	0x02		
Speaker Select         TV Speaker         0x01         0x01         0x01         Not supported           Audio Out         Audio Out         0x01         Not supported         0x01         Not supported           Sound Select         Main         0x08         0x00         0x00         0x00           Sound Reset         Sound Reset         0x08         0x00         0x00         0x00           Auto Storeo         Manual         0x08         0x00         0x00         0x00           Auto Storeo         Manual         0x00         0x00         0x00         0x00           Audo Delay         Deaiy Value (0-250)         0x0d         0x00         0x00         0x00           KEY         Key Generation         0x00         0x00         0x00         0x00         0x00           Others         Art Mode         OFF         0x0b         0x0b         0x00         0x01         0x01           Mibient Mode         OFF         0x0b         0x0b         0x00         0x01         0x01         0x01         0x01           Mibient Mode         OFF         0x0b         0x0b         0x0b         0x00         0x01         0x01         0x01         0x01         0x01         <						UXUG	UXUU	UXUU		
Instant on an one of the system         Over the system         Over the system         Not supported           Audio Out         Audio Out         0x01         Not supported         Not supported           Sound Select         Main         0x08         0x01         Not supported         Not supported           Sound Select         Main         0x08         0x00         0x00         0x01         Not supported           Auto Stereo         Manual         0x00         0x00         0x00         0x00         0x00           Audio Delay         Dealy Value (0~250)         0x0d         0x00         0x00         0x00         0x00           KEY         Key Generation         0x00         0x00         0x00         0x00         0x00         0x00           CSD         Enable/Disable Cmd Result OSD         Disable         0x00         0x00         0x00         0x00           Meres         Art Mode         OFF         0x0b         0x0b         0x00         0x01         0x01           Meres         Art Mode         OFF         0x0b         0x0b         0x01         0x01         0x01           HDMI CEC         OFF         0x0b         0x0b         0x00         0x01         0x01 <t< td=""><td></td><td>Speaker Select</td><td>TV Speaker</td><td></td><td> </td><td>0v07</td><td><math>0 \times 0 \cap</math></td><td></td><td></td><td></td></t<>		Speaker Select	TV Speaker			0v07	$0 \times 0 \cap$			
Audio Out         Ox00         Not out         Ox00         Ox00         Ox00           Sound Select         Main         0x08         0x00         0x00 <td></td> <td></td> <td>External Speaker</td> <td></td> <td></td> <td>57.07</td> <td>57.00</td> <td>0x00</td> <td>Not supported</td> <td></td>			External Speaker			57.07	57.00	0x00	Not supported	
Sound Select         Main         0x08         0x00         0x00         0x01           Sound Reset         Sound Reset         Sound Reset         0x09         0x00         0x00         0x00           Auto Stereo         Manual         0x00         0x00         0x00         0x00         0x00           Autio         0x00         0x00         0x00         0x00         0x00         0x01           Audio Delay         Dealy Value (0~250)         0x0d         0x00         0x00         0x00         map           OSD         Enable/Disable Cmd Result OSD         Disable         0x0e         0x01         0x00         0x00           Others         Art Mode         OFF         0x0b         0x0b         0x00         0x01           Milent Mode         OFF         0x0b         0x0b         0x01         0x01         0x01           Video Player         Pause         0x0e         0x02         0x00         0x02         2. Rename them to 1.mp4, 2.mp4 and so           Video Player On UI Off (0 – 255)         0x0e         0x02         0x00         0x02         0x01         4. Send command           Video Player On UI Off (0 – 255)         0x0e         0x02         0x02         0x01 <t< td=""><td></td><td></td><td>Audio Out</td><td></td><td></td><td></td><td></td><td>0x01</td><td></td><td></td></t<>			Audio Out					0x01		
Sub         Ox01         Ox01         Ox01           Sound Reset         Sound Reset         Ox09         Ox00         Ox00         Ox00           Auto Stereo         Manual         Ox00         Ox00         Ox00         Ox00         Ox00           Auto Stereo         Manual         Ox00         Ox00         Ox00         Ox01         Ox00         Ox01           Audio Delay         Dealy Value (0~250)         Ox0d         Ox00         Ox		Sound Select	Main			0x08	0x00	0x00		
Sound Reset         Sound Reset         Ox00         0x00         0x01         0x01         0x01         0x01         0x01         0x01         0x01         0x01         0x00         0x00 <td></td> <td></td> <td>Sub</td> <td></td> <td></td> <td></td> <td></td> <td>0x01</td> <td></td> <td></td>			Sub					0x01		
Auto Stereo         Manual         0x0b         0x00         0x00         0x00         0x01           Audio Delay         Dealy Value (0~250)         0x0d         0x0d         0x00         0x00         0x01         Not supported in SERO TV           KEY         Key Generation         0x0d         0x00		Sound Reset	Sound Reset		<b> </b>	0x09	0x00	0x00		
Auto         Ox00         Ox01           Audio Delay         Dealy Value (0~250)         0x0d         0x00         0x00         (0~250)         Not supported in SERO TV           KEY         Key Generation         0x0d         0x00         0x00         0x00         0x00         map           OSD         Enable/Disable Cmd Result OSD         Disable         0x0e         0x0e         0x01         0x00		Auto Stereo	Manual			0x0b	0x00	0x00		
Audio Delay         Dealy Value (0~250)         Not supported in SERO TV           KEY         Key Generation         0x0d         0x0d         0x0d         0x0d         0x0d         0x0d         map           OSD         Enable/Disable Cmd Result OSD         Disable         0x0e         0x01         0x00         0x01         Image			Αυίο				UX UU	UXU1		
KEY         Key Generation         0x0d         0x0d         0x00         0x00         Refer key map           OSD         Enable/Disable Cmd Result OSD         Disable         0x0e         0x01         0x00         0x01         0x00         0x01         0x01         0x00         0x01         0		Audio Delay	Dealy Value (0~250)			0x0d	0x00	(0~250)	Not supp	orted in SERO TV
KEY         Key Generation         0x0d         0x0d         0x0d         0x0d         0x0d         0x0d         map           OSD         Enable/Disable Cmd Result OSD         Disable         Enable         0x0e         0x10         0x00         0x00         0x00         0x00           Others         Art Mode         OFF         0x0h         0x0h <td><u> </u></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>Refer key</td> <td></td> <td></td>	<u> </u>				1			Refer key		
OSD         Enable/Disable Cmd Result OSD         Disable         0x0e         0x0l         0x00	KEY	Key Generation			0x0d	0x00	0x00	map		
OSD         Enable         OX00         OX00         OX00         OX00         OX00         OX00         OX00         OX00         OX01           Others         Art Mode         OFF         ON         0x0b         0x0b         0x0b         0x00         0x00 <t< td=""><td></td><td>Enchla (Dischla Orr LD</td><td>Diachla</td><td></td><td>00</td><td>001</td><td>000</td><td>000</td><td></td><td></td></t<>		Enchla (Dischla Orr LD	Diachla		00	001	000	000		
Enable         Mathematical Stress         Enable         Mathematical Stress         Mathematical S	USD	Enable/Disable Cmd Result OSD	DISADIE		UxUe	UXU1	UX 00	UX UU		
Others         Art Mode         OFF         0x0b         0x0b         0x0b         0x0b         0x00			Enable					0x01		
ON         ON         OX         OX01         OX01         OX01         OX00         OX00<	Others	Art Mode	OFF		0x0b	0x0b	0x0e	0x00		
Ambient Mode         OH-         ON         Ox0b         0x0b         0x10         0x00         Constraints           HDMI CEC         OFF         0x0b         0x0b         0x0b         0x0f         0x00			ON			<u> </u>		0x01		
Image: Normal and the state of the state		Ambient Mode			0x0b	0x0b	0x10	0x00		
HDIMICECOFFOFFOTFOTFOTFOTFOTFOTT<					001	001	0.01	Ux01		
Video PlayerPauseOx0eOx0eOx02Ox0oOx0eSteps:ResumeOx0eOx0eOx0eOx02Ox00Ox0a1. Copy multiple mp4 files in pen drive.StopOx0eOx0eOx0eOx02Ox00Ox042. Rename them to 1.mp4, 2.mp4 and soSeekOx0eOx0eOx0eOx02Ox01(0~255)3. Insert pen drive in board.UI OffUI OffOx0eOx0eOx02Ox02Ox01Ox0E0x02Ox00UI OnOx0eOx0eOx02Ox02Ox01Ox0EOx0EOx02Ox011.mp4 file will be played.Player On UI Off (0 - 255)Player On UI Off (0 - 255)Ox0eOx02Ox03(0~255)To play 2.mp4 file, give commandOx0EOx0eOx0eOx02Ox03Ox03(0~255)To play 2.mp4 file, give commandOx0EOx0eOx0eOx02Ox03Ox03(0~255)To play 2.mp4 file, give command					UXUb	UXUD	UXUT			
IndexResumeOx0cOx0cOx0cOx0cOx0cOx0cOx0cOx0cOx0cOx0cOx0cOx0cI. Copy multiple mp4 files in pen drive.Image: Step Step Step Step Step Step Step Step		Video Plaver	Pause		0x0e	()x ()2	0x00	0x02		Steps:
Stop0x0e0x0e0x020x000x042. Rename them to 1.mp4, 2.mp4 and soSeek0x0e0x0e0x020x01(0~255)3. Insert pen drive in board.UI Off0x0e0x0e0x020x020x004. Send commandUI On0x0e0x020x020x010x0E 0x02 0x030x0E 0x02 0x03 0x01(for 1.mp4).Player On UI Off (0 - 255)0x0e0x0e0x020x03(0~255)To play 2.mp4 file, give command0x0E0x0e0x020x030x020x030x020x030x020x02			Resume		0x0e	0x02	0x00	0x03	1. Copy mu	Itiple mp4 files in pen drive
Seek       0x0e       0x02       0x01       (0~255)       3. Insert pen drive in board.         UI Off       0x0e       0x02       0x02       0x00       4. Send command         UI On       0x0e       0x02       0x02       0x01       0x0E 0x02 0x03       0x0E 0x02 0x03 0x01 (for 1.mp4).         Player On UI Off (0 - 255)       0x0e       0x02       0x03       (0~255)       To play 2.mp4 file, give command			Stop		0x0e	0x02	0x00	0x04	2. Rename ther	n to 1.mp4, 2.mp4 and so on
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UI On         0x0e         0x02         0x02         0x01         0x0E 0x02 0x03 0x01 (for 1.mp4).           Player On UI Off (0 - 255)         0x0e         0x0e         0x02         0x03         (0~255)         To play 2.mp4 file, give command			UI Off		0x0e	0x02	0x02	0x00	4	. Send command
Player On UI Off (0 - 255) $0x0e$ $0x02$ $0x03$ $(0\sim255)$ 1.mp4 file will be played.To play 2.mp4 file, give command $0\times0E$ $0x02$ $0x03$ $(0\sim255)$ To play 2.mp4 file, give command $0\times0E$ $0x02$ $0x03$ $0x03$ $0x02$ $0x03$ <td></td> <td></td> <td>UI On</td> <td></td> <td>0x0e</td> <td>0x02</td> <td>0x02</td> <td>0x01</td> <td>0x0E 0x0</td> <td>2 0x03 0x01(for 1.mp4).</td>			UI On		0x0e	0x02	0x02	0x01	0x0E 0x0	2 0x03 0x01(for 1.mp4).
Player Un UI Utt ( U = 255)       0x0e       0x02       0x03       (0~255)       To play 2.mp4 file, give command         0x0E       0x0E       0x02       0x03       0~255)       To play 2.mp4 file, give command						0.07	0.00		1.mr	04 file will be played.
			riayer on olott (0 - 255)		UxUe	ux02	0x03	(0~255)	loplay 2	.11104 IIIE, give command )F 0x02 0x03 0x02