

RS232C Command List for EK-623U

2017/12/21
Ver 1.00

Pin Alignment

PC	
Pin	Description
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

Projector	
Pin	Description
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	RTS
8	CTS
9	NC

RS232C Setting

Baud Rate:	19200 (Default)
Parity Check:	None
Data Bit:	8
Stop Bit:	1
Flow Control:	None

*Baud rate can be changed below value in OSD.
--> 9600, 14400, 19200, 38400, 57600, 115200

OSD Menu				Item	EIKI Format B (Expand)			Note
1st level	2nd level	3rd level	4th level		Commands	Parameter (%1=)	Read Command	
Picture	Display Mode	Bright		1-1	CF_IMAGE_%1	1	CR_IMAGE	
		Presentation						
		Movie						
		sRGB						
		Blending						
		DICOM SIM.						
		User						
		White						
		Gray 130						
		Wall color						
	Brightness			1-3	CF_BRIGHT_%1	0 ~ 100 UP DN	CR_BRIGHT	Set Bright Value (0 ~ 100) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
	Contrast			1-4	CF_CONT_%1	0 ~ 100 UP DN	CR_CONT	Set Contrast Value (0 ~ 100) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
	Sharpness			1-5	CF_SHARP_%1	0 ~ 10 UP DN	CR_SHARP	Set Sharp Value (0 ~ 100) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
	Color			1-6	CF_COLOR_%1	0 ~ 100 UP DN	CR_COLOR	Set Color Value (0 ~ 100) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
	Tint			1-7	CF_TINT_%1	0 ~ 100 UP DN	CR_TINT	Set Tint Value (0 ~ 100) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
Gamma	Video		1-8	CF_GAMMA_%1	1	CR_GAMMA		
	Film							
White Peaking	Bright		1-9	CF_WPEAK_%1	2	CR_WPEAK		
	CRT							
Color Temperature	DICOM		1-10	CF_COLTEMP_%1	3	CR_COLTEMP		
	Warm							
Color Wheel Speed	Bright		1-11	CF_CWSPEED_%1	2	CR_CWSPEED		
	Cool							
HSG Adjustment	Red	Hue	1-12-1-1	CF_CM_RH_%1	1~199 UP DN	CR_CM_RH	Set Red Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Saturation	1-12-1-2	CF_CM_RS_%1	0 ~ 199 UP DN	CR_CM_RS	Set Red Saturant Value (0 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Gain	1-12-1-3	CF_CM_RG_%1	1~199 UP DN	CR_CM_RG	Set Red Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Green	Hue	1-12-2-1	CF_CM_GH_%1	1~199 UP DN	CR_CM_GH	Set Green Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
			Saturation	1-12-2-2	CF_CM_GS_%1	0 ~ 199 UP DN	CR_CM_GS	Set Green Saturant Value (0 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
			Gain	1-12-2-3	CF_CM_GG_%1	1~199 UP DN	CR_CM_GG	Set Green Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
	Blue	Hue	1-12-3-1	CF_CM_BH_%1	1~199 UP DN	CR_CM_BH	Set Blue Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Saturation	1-12-3-2	CF_CM_BS_%1	0 ~ 199 UP DN	CR_CM_BS	Set Blue Saturant Value (0 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Gain	1-12-3-3	CF_CM_BG_%1	1~199 UP DN	CR_CM_BG	Set Blue Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
	Cyan	Hue	1-12-4-1	CF_CM_CH_%1	1~199 UP DN	CR_CM_CH	Set Cyan Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Saturation	1-12-4-2	CF_CM_CS_%1	0 ~ 199 UP DN	CR_CM_CS	Set Cyan Saturant Value (0 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Gain	1-12-4-3	CF_CM_CG_%1	1~199 UP DN	CR_CM_CG	Set Cyan Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Magenta	Hue	1-12-5-1	CF_CM_MH_%1	1~199 UP DN	CR_CM_MH	Set Magenta Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
			Saturation	1-12-5-2	CF_CM_MS_%1	0 ~ 199 UP DN	CR_CM_MS	Set Magenta Saturant Value (0 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
			Gain	1-12-5-3	CF_CM_MG_%1	1~199 UP DN	CR_CM_MG	Set Magenta Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting
	Yellow	Hue	1-12-6-1	CF_CM_YH_%1	1~199 UP DN	CR_CM_YH	Set Yellow Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Saturation	1-12-6-2	CF_CM_YS_%1	0 ~ 199 UP DN	CR_CM_YS	Set Yellow Saturant Value (0 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Gain	1-12-6-3	CF_CM_YG_%1	1~199 UP DN	CR_CM_YG	Set Yellow Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
	White Gain	Red	1-12-7-1	CF_CM_WH_%1	1~199 UP DN	CR_CM_WH	Set White Hue Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Green	1-12-7-2	CF_CM_WS_%1	1~199 UP DN	CR_CM_WS	Set White Saturant Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
		Blue	1-12-7-3	CF_CM_WG_%1	1~199 UP DN	CR_CM_WG	Set White Gain Value (1 ~ 199) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting	
	Contrast Enhancement	Reset to Default		1-12-8	CF_CMFDEFAULT_RST	UP DN		Reset the value of HSG setting
		Off						
	Color Space	Dynamic Black		1-13	CF_DYNAMICBLACK_%1	0 1 2	CR_DYNAMICBLACK	
Extreme Black								
Save to User	Auto		1-14	CF_COLORSPACE_%1	1 2 3 4	CR_COLORSPACE		
	RGB (0-255)							
Aspect Ratio	RGB (16-235)		2-1	CF_ASPECT_%1	1	CR_ASPECT		
	YUV							
Pixel Phase	Yes/No		2-2	CF_PHASE_%1	1	CR_PHASE		
	Auto							
Pixel Track	4:3		2-3	CR_FREQ_%1	2	CR_FREQ		
	16:9							
Horz Position	16:10		2-4	CF_HPOS_%1	3	CR_HPOS		
	Native							
Vert Position			2-5	CF_VPOS_%1	4	CR_VPOS		
Digital Horz Zoom			2-6	CF_DZOOM_H_%1	5	CR_DZOOM_H		
Digital Vert Zoom			2-7	CF_DZOOM_V_%1	0 ~ 100 UP DN	CR_DZOOM_V		
Digital Horz Shift			2-8	CF_DSHIFT_H_%1	0 ~ 100 UP DN	CR_DSHIFT_H		

Screen	Digital Vert Shift		2-9		CF_DSHIFT_V_%1	0 ~ 100 UP DN	CR_DSHIFT_V	Set V Digital Shift Value (0 ~ 100) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting												
	Ceiling Mount	Off On Auto	2-10		CF_CEIL_%1	0 1 2	CR_CEIL													
	Rear Projection	Off On	2-11		CF_REAR_%1	0 1	CR_REAR													
	Geometric Correction	H. Keystone		2-12-1	C90 C91	CF_KYSTN_H_%1	0~40 UP DN	CR_KYSTN_H	Set H Keystone Value (0 ~ 40) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting											
			V. Keystone			2-12-2	C8E C8F	CF_KYSTN_V_%1	0~40 UP DN	CR_KYSTN_V	Set V Keystone Value (0 ~ 40) Increase setting value (+1) from current setting Decrease setting value (-1) from current setting									
		4-corner	Top Left Horz Adjust		2-12-3-1		CF_WARP_TLC_X_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting										
			Top Left Vert Adjust		2-12-3-2		CF_WARP_TLC_Y_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting										
			Top Right Horz Adjust		2-12-3-3		CF_WARP_TRC_X_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting										
			Top Right Vert Adjust		2-12-3-4		CF_WARP_TRC_Y_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting										
			Bottom Left Horz Adjust		2-12-3-5		CF_WARP_BLC_X_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting										
			Bottom Left Vert Adjust		2-12-3-6		CF_WARP_BLC_Y_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting										
		Bottom Right Horz Adjust		2-12-3-7		CF_WARP_BRC_X_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting											
		Bottom Right Vert Adjust		2-12-3-8		CF_WARP_BRC_Y_%1	UP DN		Increase setting value (+1) from current setting Decrease setting value (-1) from current setting											
		Grid Color	GREEN Purple	2-12-4		CF_GRIDCOLOR_%1	1 2	CR_GRIDCOLOR												
		Reset	Yes/No	2-12-5		CF_WARP_RST			Reset the Keystone / 4-Corner value											
	PIP-PBP	PIP / PBP Enable	Off PBP PIP	2-13-1		CF_PIPMODE_%1	0 1 2	CR_PIPMODE												
		Main Source	VGA	2-13-2	C05 C36 C37	CF_PIPMAININP_%1	1 2 3 4 5	CR_PIPMAININP (CR1)												
			HDMI-1																	
			HDMI-2																	
			DVI																	
			HDBaseT																	
		Sub Source	VGA	2-13-3		CF_PIPSUBINP_%1	1 2 3 4 5	CR_PIPSUBINP												
			HDMI-1																	
			HDMI-2																	
			DVI																	
HDBaseT																				
Layout	Top Left	2-13-4		CF_PIPPOSITION_%1	1 2 3 4	CR_PIPPOSITION														
	Top Right																			
	Bottom Left																			
	Bottom Right																			
Size	small	2-13-5		CF_PIPSIZESSUB_%1	1 2 3	CR_PIPSIZESSUB														
	Medium																			
Swap		2-13-6		CF_PIPSWAP			Execute PIP/PBP Swap													
Source key	Change Sources	2-14		CF_AUTOSRC_%1	1 2 3	CR_AUTOSRC														
	List all Sources																			
Auto Image	Auto Source	2-15		CF_AUTOIMG_%1	1 2	CR_AUTOIMG														
	Normal																			
Source Info	Wide	2-16-1	CR1																	
	Active Source																			
	Signal Format																			
	Aspect Ratio																			
	Resolution																			
	Vert Refresh																			
	Horz Refresh																			
	Pixel Clock																			
	Sync Type																			
	Color Space																			
	PIP/PBP																			
	(When PIP/PBP active)																			
<PIP/PBP source lines>		2-16-11					CR_PIPSUBINP CR_SUBSIGNFORMAT CR_SUBASPRATIO CR_SUBRESOLUTION CR_SUBREFRESH CR_SUBPIXELCLK CR_SUBSYNCTYPE CR_SUBCLSPACE													
Settings	Language	English	3-1		CF_LANG_%1	ENG SCH FRA DEU ITA JPN KOR RUS ESP NED POR INA ARA	CR_LANG													
		Simplified Chinese																		
		French																		
		German																		
		Italian																		
		Japanese																		
		Korean																		
		Russian																		
		Spanish																		
		Dutch																		
Portuguese																				
Menu Location	Left Top	3-2		CF_MENULOCATION_%1	1 2 3 4 5	CR_MENULOCATION														
	Right Top																			
Standby Power Mode	Center	3-3		CF_ECONETWORK_%1	1 2	CR_ECONETWORK														
	Left Bottom																			
Test Pattern	Right Bottom	3-4		CF_TESTPAT_%1	0 1 2 3 4 5	CR_TESTPAT														
	0.5W mode																			
	Communication mode																			
	None																			
Direct Power On	Grid	3-5	C29 C28	CF_AUTOPOWERON	0 1	CR_AUTOPOWERON														
	White																			
Hot-Key settings	Black	3-6		CF_HOTKEY_%1	1 2 3 4	CR_HOTKEY														
	Checkerboard																			
Reset to Default	Color Bars	3-7		CF_FACTORY_RESET																
	Off																			
Light source	On	4-1		CF_AUTOLAMPCONTROL_%1	1 2 3 4	CR_AUTOLAMPCONTROL														
	Blank Screen																			
	Aspect Ratio																			
	Freeze Screen (Note01)																			
Light Source Info	Projector Info	4-2		CF_LAMPPOWER_%1	0 to 99 (30% to 100%)	CR_LAMPPOWER														
	Yes/No																			
	LD Hours																			
Lens Function	Background color	5-1		CF_BACKGND_%1	1 2 3 4	CR_BACKGND														
			Logo																	
			Blue																	
			Black																	
	Focus	5-4-1	C4B C4D C4A C4C					Focus in - motor go step Focus in - motor run Focus out - motor go step Focus out - motor run												
								Zoom	5-4-2	C46 C48 C47 C49				Zoom in - motor go step Zoom in - motor run Zoom out - motor go step Zoom out - motor run						
														Lens Shift	5-4-3	C5D C63 C5E C64 C60 C66 C5F C65				Left shift up - motor go step Left shift up - motor run Left shift down - motor go step Left shift down - motor run Left shift right - motor go step Left shift right - motor run Left shift left - motor go step Left shift left - motor run
																				On
								Off												
								Lens Calibration		5-4-5	C61				Execute Lens Calibration					

Options	High Altitude	Off On		5-5	CF_ALTITUDE_%1	0 1	CR_ALTITUDE		
	PIN	PIN protect	Off On	5-6-1	CF_PJPINCODE_%1	0 1			
		Change PIN		5-6-2	CF_PJPINCODECHANGE_%1_%2	%1= Old PIN %2= New PIN (00000 ~ 99999)		Change PIN Code	
	Remote Settings	Top	Off On	5-7-1	CF_IRREMOTE_TOP_%1	0 1	CR_IRREMOTE_TOP		
		Front	Off On	5-7-2	CF_IRREMOTE_FRONT_%1	0 1	CR_IRREMOTE_FRONT		
		HDBaseT	Off On	5-7-3-1	CF_IRREMOTE_HDBASET_%1	0 1	CR_IRREMOTE_HDBASET		
		Projector Address	0 ~ 9	5-7-3-2	CF_PJIRADDRESS_%1	0 ~ 9	CR_PJIRADDRESS		
	Show message	Off On		5-8	CF_DISP_%1	0 1	CR_DISP		
	LED settings	Keypad LED	On Off	5-9-1	CF_KEYLIGHT_%1	0 1	CR_KEYLIGHT		
		Status LED	On Off	5-9-2	CF_STATLED_%1	0 1	CR_STATLED		
			Warnings/Errors Only			0 2			
	Information	Model Name		5-10-1			CR_MODELNAME		
		Serial Number		5-10-2			CR_SERIALNO		
		Native Resolution		5-10-3			CR_NRESOLUTION		
		MCU FW		5-10-4			CR_FWVER1		
		DDP FW		5-10-5			CR_FWVER2		
		M9813 FW		5-10-6			CR_FWVER3		
		Motor FW		5-10-7			CR_FWVER4		
		ext flash FW		5-10-8			CR_FWVER5		
		Main Input		5-10-9	CR1				
		Main Signal Format		5-10-10			CR_SIGNFORMAT		
		Main Pixel Clock		5-10-11			CR_PIXELCLK		
		Main Sync Type		5-10-12			CR_SYNCTYPE		
		Main Horz Refresh		5-10-13					
		Main Vert Refresh		5-10-14			%1 %2 (%1 = H freq. %2 = V freq.)	CR_REFRESH	
		PIP/PBP Input		5-10-15				CR_PIPSUBINP	
		PIP/PBP Signal Format (note 9)		5-10-16				CR_SUBSIGNFORMAT	
		PIP/PBP Pixel Clock (note 9)		5-10-17				CR_SUB_PIXELCLK	
		PIP/PBP Sync Type (note 9)		5-10-18				CR_SUB_SYNCTYPE	
		PIP/PBP Horz Refresh (note 9)		5-10-19			%1 %2 (%1 = H freq. %2 = V freq.)	CR_SUB_REFRESH	
		PIP/PBP Vert Refresh (note 9)		5-10-20					
		Light Source Power		5-10-21				CR_LAMPPOWER	
		Total Projector Hours		5-10-22				CR_PJTTIME	
		Light Source Hours		5-10-23				CR_LIGHTTIME	
		Standby Mode		5-10-24				CR_ECONETWORK	
Lens Lock Settings			5-10-25				CR_LENSLOCK		
IP Address			5-10-26				CR_IPADDRESS		
DHCP			5-10-27				CR_DHCP		
System Temperature			5-10-28						
3D	3D	Auto On	6-1	CF_3D-MODE_%1	1 2	CR_3D-MODE			
	3D Invert	Off On	6-2	CF_3D-INVERT_%1	0 1	CR_3D-INVERT			
	3D Format	Frame Packing		6-3	CF_3D-FORMAT_%1	1 2 3 4	CR_3D-FORMAT		
		Side-by-Side (Half)							
		Top and Bottom							
		Frame Sequential							
	1080p @ 24	96Hz 144Hz	6-4	CF_3D-1080P_%1	1 2	CR_3D-1080P			
	3D sync out	To Emitter To Next Projector	6-5	CF_SYNCOUT_%1	1 2	CR_SYNCOUT			
Frame Delay		6-6	CF_FRAMEDELAY_%1	1~200 UP DN	CR_FRAMEDELAY				
L/R Reference	1ST Frame Field GPIO	6-7	CF_LR-REF_%1	1 2	CR_LR-REF				
DLP Link	On Off	6-8	CF_DLPLINK_%1	1 0	CR_DLPLINK				
Communications	LAN	DHCP	On Off	7-1-1	CF_DHCP_%1	1 0	CR_DHCP		
		IP Address		7-1-2	CF_IPADDRESS_%1	xxx.xxx.xxx.xxx	CR_IPADDRESS		
		Subnet Mask		7-1-3	CF_SUBNET_%1	xxx.xxx.xxx.xxx	CR_SUBNET		
		Default Gateway		7-1-4	CF_GATEWAY_%1	xxx.xxx.xxx.xxx	CR_GATEWAY		
		MAC Address		7-1-5			CR_MACADDRESS		
	Network	Apply	Command	7-1-6	CF_LANSETAPPLY				
		Projector Name		7-2-1			CR_NET_PJNAME		
		Show Network Messages	On Off	7-2-2	CF_NETMESG_%1	1 0	CR_NETMESG		
		Restart Network	Command	7-2-3	CF_NET_RESET			Execute Restart Network	
	Serial Port Baud Rate	Network Factory Reset	Command	7-2-4	CF_NET_FACTORY_RESET			Execute Network Factory Reset	
		Serial Port Baud Rate	1200		7-3	CF_BAUDRATE_%1	1 2 3 4 5 6 7 8 9	CR_BAUDRATE	
			2400						
			4800						
			9600						
			14400						
			19200						
			38400						
57600									
115200									
Serial Port Echo	Off On	7-4	CF_SERIALECHO_%1	0 1	CR_SERIALECHO				
Serial Port Path	RS232		7-5	CF_SERIALPATH_%1	1 2	CR_SERIALPATH			
	HDBaseT								

Category	Item	EIKIK Format A (Standard) Commands	EIKI Format B (Expand)			Note	
			Commands	Parameter (%1=)	Read Command		
Other	A-1	C00				Power Off	
	A-2	C01				Power On	
	A-3	CR0				Reply code [%1] 1 = Stand-by 2 = Warming up 4 = Sercing Source 7 = Display source 12 = Cooling	
	A-4		CF_LNS_INSTALL_%1	1	CR_LNS_INSTALL		Execute UST Lens Installation procedure
				2			
				3			
4							
5							
A-5		CR_ALLPFAIL	0				

Remote Control Button	B-1	C00				Power ON
	B-2	C02				POWER OFF
	B-3		CF_KYBTN1			1
	B-4		CF_KYBTN2			2
	B-5		CF_KYBTN3			3
	B-6		CF_KYBTN4			4
	B-7		CF_KYBTN5			5
	B-8		CF_KYBTN6			6
	B-9		CF_KYBTN7			7
	B-10		CF_KYBTN8			8
	B-11		CF_KYBTN9			9
	B-12		CF_KYINFO			Info
	B-13		CF_KYBTN0			0
	B-14	C27				Mode
	B-15	C89				Auto
	B-16		CF_KYSRC			Source
	B-17	C3C				Up
	B-18	C3B				Left
	B-19	C3F				Enter
	B-20	C3A				Right
	B-21	C3D				Down
	B-22	C1C				Menu
	B-23		CF_KYEXIT			Exit
	B-24		CF_KYGAMMA			Gamma
	B-25		CF_KYBRIGHT			Bright
	B-26		CF_KYCONT			Cont.
	B-27		CF_KYPIP			PIP
	B-28	C5F				Lens H (Left)
	B-29	C60				Lens H (Right)
	B-30	C4A				Focus (Up)
	B-31	C5D				Lens V (Up)
	B-32	C5E				Lens V (Down)
	B-33	C4B				Focus (Down)
	B-34	C91				Keystone H (Left)
	B-35	C90				Keystone H (Right)
	B-36	C46				Zoom (Up)
	B-37	C8E				Keystone V (Up)
	B-38	C8F				Keystone V (Down)
	B-39	C47				Zoom (Down)
	B-40		CF_KYSHUTTER			Shutter (AV Mute)
	B-41		CF_KYHOTKEY			Hot Key
	B-42		CF_KYTESTPAT			Pattern