

RS232 Command List for EK-830 & ES-DU11KLZ

2020.3.27 komoda

Ver.1.00

●Connection

<Port setting>

Baud Rate 9600 bps
Parity None
Data Length 8 bit
Stop Bit Length 1 bit

<Wiring>

Connect the computer and projector with RS232 cross cable

●Format

<Command format>

Header: '*'
Delimiter CR (0x0Dh)
Command 3Byte (ASCII Character)
Separator "=" Command and Parameter
Parameter Variable length

<Response format>

Header: '#'
Delimiter CR (0x0Dh)
Command 3Byte (ASCII Character, command echo)
Separator "=" Command and Parameter
Parameter Variable length

●Details and examples

<Setting Command>

Get

'*' 'X' 'X' 'X' CR

PARAM: None

Example

Get Picture Mode (Standard = 1)

'*' 'P' 'I' 'M' CR

Set

'*' 'X' 'X' 'X' '=' PARAM CR

PARAM: [ASCII number] Set the value (See the conversion table.)

Example

Set Picture Mode (Standard = 1)

'*' 'P' 'I' 'M' '=' '1' CR

●Response of Illegal command

<Unsupported command>

Example

Unknown Command

'*' 'A' 'B' 'C' CR

<Command error>

Command is correct but unable to execute.

Parameter Error (unknown)

'*' 'P' 'I' 'M' '=' 'X' 'Y' 'Z' CR

Parameter Error (out of range)

'*' 'P' 'I' 'M' '=' '8' CR

A get command is sent for command that status is not available.

'*' 'P' 'I' 'M' CR

Load lens command is sent when the lens memory #2 is empty.

'*' 'L' 'E' 'N' '=' '2' CR

'#' 'X' 'X' 'X' '=' PARAM CR

PARAM: Current value (ASCII number)
(See the conversion table in the command list.)

'#' 'P' 'I' 'M' '=' '1' CR

'#' 'X' 'X' 'X' '=' PARAM CR

PARAM: The value after setting

'#' 'P' 'I' 'M' '=' '1' CR

'#' 'E' 'R' 'O' CR

'#' 'E' 'R' 'O' CR

'#' 'X' 'X' 'X' '=' 'E' 'R' 'O' CR

'#' 'P' 'I' 'M' '=' 'E' 'R' 'O' CR

'#' 'P' 'I' 'M' '=' 'E' 'R' 'O' CR

'#' 'P' 'I' 'M' '=' 'E' 'R' 'O' CR

'#' 'L' 'E' 'N' '=' 'E' 'R' 'O' CR

Function	Command Name	standby	EXE	GET	Command																Response					
Picture Mode	PIM			V	*	'P'	'I'	'M'	CR									#	'P'	'I'	'M'	'='	PARAM : 0 to 4	CR		
PictureMode 1 = 0 (Bright)					*	'P'	'I'	'M'	'='	'0'	CR							#	'P'	'I'	'M'	'='	'0'	CR		
PictureMode 2 = 1 (Standard)					*	'P'	'I'	'M'	'='	'1'	CR							#	'P'	'I'	'M'	'='	'1'	CR		
PictureMode 3 = 2 (Vivid)					*	'P'	'I'	'M'	'='	'2'	CR							#	'P'	'I'	'M'	'='	'2'	CR		
PictureMode 4 = 3 (sRGB)					*	'P'	'I'	'M'	'='	'3'	CR							#	'P'	'I'	'M'	'='	'3'	CR		
PictureMode 5 = 4 (DICOM SIM)					*	'P'	'I'	'M'	'='	'4'	CR							#	'P'	'I'	'M'	'='	'4'	CR		
Aspect	ASP			V	*	'A'	'S'	'P'	CR									#	'A'	'S'	'P'	'='	PARAM : 0 to 3	CR		
Auto = 0					*	'A'	'S'	'P'	'='	'0'	CR							#	'A'	'S'	'P'	'='	'0'	CR		
4:3 = 1					*	'A'	'S'	'P'	'='	'1'	CR							#	'A'	'S'	'P'	'='	'1'	CR		
16:9 = 2					*	'A'	'S'	'P'	'='	'2'	CR							#	'A'	'S'	'P'	'='	'2'	CR		
16:10 = 3					*	'A'	'S'	'P'	'='	'3'	CR							#	'A'	'S'	'P'	'='	'3'	CR		
Projection Mode	PRJ			V	*	'P'	'R'	'J'	CR									#	'P'	'R'	'J'	'='	PARAM : 0 to 3	CR		
Standard = 0					*	'P'	'R'	'J'	'='	'0'	CR							#	'P'	'R'	'J'	'='	'0'	CR		
Rear = 1					*	'P'	'R'	'J'	'='	'1'	CR							#	'P'	'R'	'J'	'='	'1'	CR		
Ceiling = 2					*	'P'	'R'	'J'	'='	'2'	CR							#	'P'	'R'	'J'	'='	'2'	CR		
Rear Ceiling = 3					*	'P'	'R'	'J'	'='	'3'	CR							#	'P'	'R'	'J'	'='	'3'	CR		
Auto Power Off	APO			V	*	'A'	'P'	'O'	CR									#	'A'	'P'	'O'	'='	PARAM : 0 to 4	CR		
Off = 0					*	'A'	'P'	'O'	'='	'0'	CR							#	'A'	'P'	'O'	'='	'0'	CR		
On(30min) = 1					*	'A'	'P'	'O'	'='	'1'	CR							#	'A'	'P'	'O'	'='	'1'	CR		
On(20min) = 2					*	'A'	'P'	'O'	'='	'2'	CR							#	'A'	'P'	'O'	'='	'2'	CR		
On(10min) = 3					*	'A'	'P'	'O'	'='	'3'	CR							#	'A'	'P'	'O'	'='	'3'	CR		
On(5min) = 4					*	'A'	'P'	'O'	'='	'4'	CR							#	'A'	'P'	'O'	'='	'4'	CR		
Auto Source Detection	ASD			V	*	'A'	'S'	'D'	CR									#	'A'	'S'	'D'	'='	PARAM : 0 to 1	CR		
Off = 0					*	'A'	'S'	'D'	'='	'0'	CR							#	'A'	'S'	'D'	'='	'0'	CR		
On = 1					*	'A'	'S'	'D'	'='	'1'	CR							#	'A'	'S'	'D'	'='	'1'	CR		
Power On	PWR			V	*	'P'	'W'	'R'	CR									#	'P'	'W'	'R'	'='	PARAM : 0 to 1	CR		
Manual = 0					*	'P'	'W'	'R'	'='	'0'	CR							#	'P'	'W'	'R'	'='	'0'	CR		
Auto. = 1					*	'P'	'W'	'R'	'='	'1'	CR							#	'P'	'W'	'R'	'='	'1'	CR		
Laser Power	LSR			V	*	'L'	'S'	'R'	CR									#	'L'	'S'	'R'	'='	PARAM : 0 to 1	CR		
Low = 0					*	'L'	'S'	'R'	'='	'0'	CR							#	'L'	'S'	'R'	'='	'0'	CR		
Standard = 1					*	'L'	'S'	'R'	'='	'1'	CR							#	'L'	'S'	'R'	'='	'1'	CR		
Load Lens Memory	LEN				*	'L'	'E'	'N'	'='	'0'	CR							#	'L'	'E'	'N'	'='	'0'	CR		
Load Memry 1 = 0					*	'L'	'E'	'N'	'='	'1'	CR							#	'L'	'E'	'N'	'='	'1'	CR		
Load Memry 2 = 1					*	'L'	'E'	'N'	'='	'2'	CR							#	'L'	'E'	'N'	'='	'2'	CR		
Load Memry 3 = 2					*	'L'	'E'	'N'	'='	'3'	CR							#	'L'	'E'	'N'	'='	'3'	CR		
Load Memry 4 = 3					*	'L'	'E'	'N'	'='	'4'	CR							#	'L'	'E'	'N'	'='	'4'	CR		
Load Memry 5 = 4					*	'L'	'E'	'N'	'='	'5'	CR							#	'L'	'E'	'N'	'='	'5'	CR		
Load Memry 6 = 5					*	'L'	'E'	'N'	'='	'5'	CR							#	'L'	'E'	'N'	'='	'5'	CR		
Signal Power On	SPO			V	*	'S'	'P'	'O'	CR									#	'S'	'P'	'O'	'='	PARAM : 0 to 1	CR		
Off = 0					*	'S'	'P'	'O'	'='	'0'	CR							#	'S'	'P'	'O'	'='	'0'	CR		
On = 1					*	'S'	'P'	'O'	'='	'1'	CR							#	'S'	'P'	'O'	'='	'1'	CR		
Execution Group (Following State is Each Execution State)																										
Turn On Standby > ON	PWO	V	V		*	'P'	'W'	'O'	CR									#	'P'	'W'	'O'	'='	'O'	'K'	CR	
Turn Off ON > Standby	PWF		V		*	'P'	'W'	'F'	CR									#	'P'	'W'	'F'	'='	'S'	'C'	'0'	CR
Toggle Function Group (Following State is Each Execution State)																										
Mute	MUT			V	*	'M'	'U'	'T'	CR									#	'M'	'U'	'T'	'='	PARAM : 0 to 1	CR		
Mute On = 1					*	'M'	'U'	'T'	'='	'1'	CR							#	'M'	'U'	'T'	'='	'1'	CR		
Mute Off = 0					*	'M'	'U'	'T'	'='	'0'	CR							#	'M'	'U'	'T'	'='	'0'	CR		
HSG	HSG			V	*	'H'	'S'	'G'	CR									#	'H'	'S'	'G'	'='	PARAM : 0 to 1	CR		
HSG On = 1					*	'H'	'S'	'G'	'='	'1'	CR							#	'H'	'S'	'G'	'='	'1'	CR		
HSG Off = 0					*	'H'	'S'	'G'	'='	'0'	CR							#	'H'	'S'	'G'	'='	'0'	CR		
Special Group (Following State is "Input Channel")																										
Input Source	INP			V	*	'I'	'N'	'P'	CR									#	'I'	'N'	'P'	'='	PARAM : 0 to 8	CR		
Computer 1= 0					*	'I'	'N'	'P'	'='	'0'	CR							#	'I'	'N'	'P'	'='	'0'	CR		
Computer 2 (BNC) = 1					*	'I'	'N'	'P'	'='	'1'	CR							#	'I'	'N'	'P'	'='	'1'	CR		
HDMI 1 / MHL = 2					*	'I'	'N'	'P'	'='	'2'	CR							#	'I'	'N'	'P'	'='	'2'	CR		
DVI-D = 3					*	'I'	'N'	'P'	'='	'3'	CR							#	'I'	'N'	'P'	'='	'3'	CR		
Video = 4					*	'I'	'N'	'P'	'='	'4'	CR							#	'I'	'N'	'P'	'='	'4'	CR		
S-Video = 5					*	'I'	'N'	'P'	'='	'5'	CR							#	'I'	'N'	'P'	'='	'5'	CR		
HDBaseT = 6					*	'I'	'N'	'P'	'='	'6'	CR							#	'I'	'N'	'P'	'='	'6'	CR		
HDMI 2 / W&B = 7					*	'I'	'N'	'P'	'='	'7'	CR							#	'I'	'N'	'P'	'='	'7'	CR		
3G-SDI = 8					*	'I'	'N'	'P'	'='	'8'	CR							#	'I'	'N'	'P'	'='	'8'	CR		
Projector Status Group																										
Projector Power State	PPS	V	V		*	'P'	'P'	'S'	CR									#	'P'	'P'	'S'	'='	*Note U1	CR		
Input Source Information	INQ		V		*	'I'	'N'	'Q'	CR									#	'I'	'N'	'Q'	'='	*Note U2	CR		
Detected Error Type	DER		V		*	'D'	'E'	'R'	CR									#	'S'	'E'	'R'	'='	*Note U3	CR		
Total Time	LTT		V		*	'L'	'T'	'T'	CR									#	'L'	'T'	'T'	'='	PARAM : xxHxxM	CR		
Temperature 1 (Degree C)	TMP		V		*	'T'	'M'	'P'	CR									#	'T'	'M'	'P'	'='	PARAM : -128 to 127	CR		
Software Version	SFT		V		*	'S'	'F'	'T'	CR									#	'S'	'F'	'T'	'='	*Note U4	CR		

Note : Invalid Command Response

'E' 'R' '0' CR

Note : Execution Failure Response

Command '=' 'E' 'R' '0' CR

Note U1 : Projector State

Data
0 Standby
1 Turn On - Start
5 Normal (Displaying Image)
7 Cooling
9 Shutdown by Error

Note U2 : Input Source Information

Data1
0 Computer 1
1 Computer 2
2 HDMI/MHL
3 DVI-D
4 Video
5 S-Video
6 HDBaseT
8 3G-SDI
S Serching
E Others (Example: at power on, Coolong, etc)

Note U3 : Error Type

Character Error Type Returns a string using "E", "W" or "O" characters.
1st Laser Error
2nd Temperature Error
3rd Color Wheel
4th Phosphor Wheel 1
5th Phosphor Wheel 2
6th Liquid Pump 1
7th Liquid Pump 2
8th Fan 1 Error
9th ~ 18th Fan 2 Error ~ Fan 18 Error
19th Fan 14 Error

Note U4 :

E: Error W:Warning O:Ok
No Error: OOOOOOOOOOOOOOOOOO
Fan 1 error: OOOOOOOE OOOOOOOOOOOO
Returns software versions in one line.
If there are 3kinds firmware inside (DDP, MCU, LAN).
1.45-1.22-4.52
(DDP:1.45 MCU:1.22 LAN:4.52)