Version:1.00

RS-232 Protocol Function for EIP-UHS100, EIP-XHS100

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:	38400
Parity Check:	None
Data Bit:	8
Stop Bit:	1
Flow Control:	None

Command Format

C1	C2	C3	C4	P1	P2	P3	P4
Command 4-digit				Parameter 4-digit			

Note:

1: If astarisk (*) is appeared in the parameter column, enter a value referred in "Description" column.

[E.g.] *** "_" means space.**

Command	Input	Input
"KEYV****"	-40	"KEYV_-40"
"KEYV****"	-5	"KEYV_-05"
"KEYV****"	0	"KEYV___0"
"KEYV****"	40	"KEYV__40"

Category	Item	Commands								Description
INPUT	1-1	I	C	H	K	?	?	?	?	Check input mode (1:HDMI, 2:DVI, 3:VGA , 4: Component/BNC, 5:3G-SDI)
		I	S	E	L	_	_	_	1	HDMI
		I	S	E	L	_	_	_	2	DVI
		I	S	E	L	_	_	_	3	VGA
		I	S	E	L	_	_	_	4	Component/BNC
		I	S	E	L	_	_	_	5	3G-SDI
	1-2-1	P	I	N	P	?	?	?	?	Check pip status
		P	I	N	P	_	_	_	0	off
		P	I	N	P	_	_	_	1	on
	1-2-2	P	I	P	S	?	?	?	?	Check input mode (1:HDMI, 2:DVI, 3:VGA , 4: Component/BNC, 5:3G-SDI)
		P	I	P	S	_	_	_	1	HDMI
		P	I	P	S	_	_	_	2	DVI
		P	I	P	S	_	_	_	3	VGA
		P	I	P	S	_	_	_	4	Component/BNC
		P	I	P	S	_	_	_	5	3G-SDI
	1-2-3	P	I	P	W	_	_	_	1	Swap input in pip
	1-2-4	P	I	P	P	?	?	?	?	Check the pip position
		P	I	P	P	_	_	_	1	Top left
		P	I	P	P	_	_	_	2	Top right
		P	I	P	P	_	_	_	3	Bottom left
		P	I	P	P	_	_	_	4	Bottom right
		P	I	P	P	_	_	_	5	Split- L-R
	1-3	P	T	R	N	?	?	?	?	Check pattern (0 -> off, other pattern is moved command number +1) ex.color bar -> 1
		P	T	R	N	_	_	_	0	Off
		P	T	R	N	_	_	_	1	Color Bar
		P	T	R	N	_	_	_	2	Cross Hatch
		P	T	R	N	_	_	_	3	Burst
		P	T	R	N	_	_	_	4	Red
		P	T	R	N	_	_	_	5	Green
		P	T	R	N	_	_	_	6	Blue
		P	T	R	N	_	_	_	7	White
		P	T	R	N	_	_	_	8	Black
		P	T	R	N	_	_	_	9	Cross Mark
		P	T	R	N	_	_	1	0	Cross Hatch + Mark
		P	T	R	N	_	_	1	1	Red (TI)
		P	T	R	N	_	_	1	2	Green (TI)
		P	T	R	N	_	_	1	3	Blue (TI)
		P	T	R	N	_	_	1	4	HRamp (TI)
	1-4	C	L	S	P	?	?	?	?	Check color space
		C	L	S	P	_	_	_	1	Auto
		C	L	S	P	_	_	_	2	YCbCr (Rec. 601);
		C	L	S	P	_	_	_	3	YPbPr (Rec. 709);
		C	L	S	P	_	_	_	4	RGB-PC (0-255);
		C	L	S	P	_	_	_	5	RGB-Video (16-235);
	1-5	I	P	L	K	?	?	?	?	Check input lock setting
		I	P	L	K	_	_	1	0	Auto
		I	P	L	K	_	_	1	1	48 Hz
		I	P	L	K	_	_	1	2	50 Hz
		I	P	L	K	_	_	1	3	60 Hz
	1-6	I	M	B	G	?	?	?	?	Check no signal setting
		I	M	B	G	_	_	_	1	Logo
		I	M	B	G	_	_	_	3	Blue
		I	M	B	G	_	_	_	4	Black
		I	M	B	G	_	_	_	5	White
	1-8	A	A	D	J	?	?	?	?	Check auto image adjust setting
		A	A	D	J	_	_	_	0	off
		A	A	D	J	_	_	_	2	Auto
		A	A	D	J	_	_	_	1	Always
	2-1	P	I	C	M	?	?	?	?	Check picture mode
		P	I	C	M	_	_	_	2	High bright
		P	I	C	M	_	_	_	1	Presentation
		P	I	C	M	_	_	_	3	Video
	2-2	C	O	N	T	?	?	?	?	check contrast value
		C	O	N	T	_	*	*	*	set contrast value (input value) (0~200)
		C	O	N	T	9	9	9	9	increase contrast value (+1) from current setting
		C	O	N	T	8	8	8	8	decrease contrast value (-1) from current setting
	2-3	D	Y	C	O	?	?	?	?	check dynamic contrast value
		D	Y	C	O	_	_	_	0	off
		D	Y	C	O	_	_	_	1	on
	2-4	B	R	I	T	?	?	?	?	check bright value
		B	R	I	T	_	*	*	*	set bright value (input value) (0~200)
		B	R	I	T	9	9	9	9	increase bright value (+1) from current setting
		B	R	I	T	8	8	8	8	decrease bright value (-1) from current setting

Picture	2-7	G	A	M	M	?	?	?	?	Check gamma mode
		G	A	M	M	_	_	1	1	Film
		G	A	M	M	_	_	1	2	Graphics
		G	A	M	M	_	_	1	3	Video
		G	A	M	M	_	_	1	4	Linear *only use "HDMI", "DVI"
	2-8-1a	C	L	T	M	?	?	?	?	(pic.mode is "Highbright") value is "1"=Native (pic.mode is "Presentation") value is "065"=6500K "1=Native" (pic.mode is "Video") value is "050=5000K" "065=6500K" "078=7800K" "093=9300K" "1=Native" Selectable mode is depended on "Pic.mode"
		C	L	T	M	_	_	_	1	Native
		C	L	T	M	_	0	5	0	5000K
		C	L	T	M	_	0	6	5	6500K
		C	L	T	M	_	0	7	8	7800K
		C	L	T	M	_	0	9	3	9300K
	2-8-2-1	R	O	F	S	?	?	?	?	check red offset value
		R	O	F	S	_	*	*	*	set red offset value (input value) (0~200)
		R	O	F	S	9	9	9	9	increase red offset value (+1) from current setting
		R	O	F	S	8	8	8	8	decrease red offset value (-1) from current setting
	2-8-2-2	G	O	F	S	?	?	?	?	check green offset value
		G	O	F	S	_	*	*	*	set green offset value (input value) (0~200)
		G	O	F	S	9	9	9	9	increase green offset value (+1) from current setting
		G	O	F	S	8	8	8	8	decrease green offset value (-1) from current setting
	2-8-2-3	B	O	F	S	?	?	?	?	check blue offset value
		B	O	F	S	_	*	*	*	set blue offset value (input value) (0~200)
		B	O	F	S	9	9	9	9	increase blue offset value (+1) from current setting
		B	O	F	S	8	8	8	8	decrease blue offset value (-1) from current setting
	2-8-2-4	R	G	A	N	?	?	?	?	check red gain value
		R	G	A	N	_	*	*	*	set red gain value (input value) (0~200)
		R	G	A	N	9	9	9	9	increase red gain value (+1) from current setting
		R	G	A	N	8	8	8	8	decrease red gain value (-1) from current setting
	2-8-2-5	G	G	A	N	?	?	?	?	check green gain value
		G	G	A	N	_	*	*	*	set green gain value (input value) (0~200)
		G	G	A	N	9	9	9	9	increase green gain value (+1) from current setting
		G	G	A	N	8	8	8	8	decrease green gain value (-1) from current setting
	2-8-2-6	B	G	A	N	?	?	?	?	check blue gain value
		B	G	A	N	_	*	*	*	set blue gain value (input value) (0~200)
		B	G	A	N	9	9	9	9	increase blue gain value (+1) from current setting
		B	G	A	N	8	8	8	8	decrease blue gain value (-1) from current setting
	2-9	S	H	R	P	?	?	?	?	check sharp value
		S	H	R	P	_	*	*	*	set sharp value (input value) (0~200)
		S	H	R	P	9	9	9	9	increase sharp value (+1) from current setting
		S	H	R	P	8	8	8	8	decrease sharp value (-1) from current setting
	2-10	N	O	I	R	?	?	?	?	check noise reduction value
		N	O	I	R	_	*	*	*	set noise reduction value (input value) (0~200)
		N	O	I	R	9	9	9	9	increase noise reduction value (+1) from current setting
		N	O	I	R	8	8	8	8	decrease noise reduction value (-1) from current setting
	2-11	A	S	P	C	?	?	?	?	Check aspect setting
		A	S	P	C	_	_	_	1	5:4
		A	S	P	C	_	_	_	2	4:3
		A	S	P	C	_	_	_	3	16:10
		A	S	P	C	_	_	_	4	16:9
		A	S	P	C	_	_	_	5	1.88
		A	S	P	C	_	_	_	6	2.35
		A	S	P	C	_	_	_	7	letter box
		A	S	P	C	_	_	_	8	native
		A	S	P	C	_	_	_	9	Unscaled
	2-12	D	G	Z	M	?	?	?	?	Check Overscan value
		D	G	Z	M	_	_	_	0	off
		D	G	Z	M	_	_	_	1	Crop
		D	G	Z	M	_	_	_	2	Zoom
	2-13-1	C	L	C	K	?	?	?	?	check h.total value
		C	L	C	K	_	*	*	*	set h.total value (input value) (0~200)
		C	L	C	K	9	9	9	9	increase h.total value (+1) from current setting
		C	L	C	K	8	8	8	8	decrease h.total value (-1) from current setting
	2-13-2	H	P	O	S	?	?	?	?	check h.pos value
		H	P	O	S	_	*	*	*	set h.pos value (input value) (0~200)
		H	P	O	S	9	9	9	9	increase h.pos value (+1) from current setting
		H	P	O	S	8	8	8	8	decrease h.pos value (-1) from current setting
	2-13-3	H	P	H	A	?	?	?	?	check h.phase value
		H	P	H	A	_	*	*	*	set h.phase value (input value) (0~200)
		H	P	H	A	9	9	9	9	increase h.phase value (+1) from current setting
		H	P	H	A	8	8	8	8	decrease h.phase value (-1) from current setting
	2-13-4	V	P	O	S	?	?	?	?	check v.pos value
		V	P	O	S	_	*	*	*	set v.posvalue (input value) (0~200)
		V	P	O	S	9	9	9	9	increase v.pos value (+1) from current setting
		V	P	O	S	8	8	8	8	decrease v.pos value (-1) from current setting
	2-14	A	D	J	S	_	_	_	1	(Auto sync) operating auto image function

Lamps	3-1	L	M	P	S	?	?	?	?	Check projecting lamp setting
		L	M	P	S	_	_	_	1	single
		L	M	P	S	_	_	_	2	dual
	3-2	L	M	P	M	?	?	?	?	Check lamp mode setting
		L	M	P	M	_	_	_	1	Eco
		L	M	P	M	_	_	_	2	Normal
		L	M	P	M	_	_	_	3	Custom Power Level
	3-3	L	M	P	P	?	?	?	?	Check lamp power setting (0~25 : 80.4%~100.0%)
		L	M	P	P	_	_	*	*	Value is "0~25" (80.4%~100.0%)
	3-4	H	L	M	D	?	?	?	?	(High Altitude) check altitude setting
		H	L	M	D	_	_	_	0	off
		H	L	M	D	_	_	_	1	on
	3-5	L	M	P	C	_	_	_	1	Check lamp 1 status (Value is "0=off", "1=on")
	3-6	L	M	P	C	_	_	_	2	Check lamp 2 status (Value is "0=off", "1=on")
	4-1	P	J	M	D	?	?	?	?	Check projection mode
		P	J	M	D	_	_	_	1	Front
		P	J	M	D	_	_	_	2	Rear
		P	J	M	D	_	_	_	3	Ceiling + Front
		P	J	M	D	_	_	_	4	Ceiling + Rear
	4-2	F	P	O	S	?	?	?	?	Check fan posture
		F	P	O	S	_	_	_	1	Normal
		F	P	O	S	_	_	_	2	Up
		F	P	O	S	_	_	_	3	Down
	4-3-1	L	N	Z	O	9	9	9	9	Lens Zoom in
		L	N	Z	O	8	8	8	8	Lens Zoom out
	4-3-2	L	N	F	O	9	9	9	9	Lens Focus Far
		L	N	F	O	8	8	8	8	Lens Focus Near
	4-3-3	L	N	S	H	9	9	9	9	Vertical Lens Shift Up
		L	N	S	H	8	8	8	8	Vertical Lens Shift Down
	4-3-4	L	N	L	R	9	9	9	9	Horizontal Lens Shift Right
		L	N	L	R	8	8	8	8	Horizontal Lens Shift Left
	4-4-1	L	N	L	O	_	_	*	*	Load Lens memory
	4-4-2	L	N	S	A	_	_	*	*	Save Lens memory
	4-5	L	N	P	D	_	_	_	1	Lens shift to center and do calibration
	4-6-1-1	K	E	Y	H	?	?	?	?	check H keystone value
		K	E	Y	H	*	*	*	*	set H keystone value (input value) (-350~350)
		K	E	Y	H	9	9	9	9	increase H keystone value (+1) from current setting
		K	E	Y	H	8	8	8	8	decrease H keystone value (-1) from current setting
	4-6-1-2	K	E	Y	V	?	?	?	?	check H keystone value
		K	E	Y	V	*	*	*	*	set V keystone value (input value) (-200~200)
		K	E	Y	V	9	9	9	9	increase V keystone value (+1) from current setting
		K	E	Y	V	8	8	8	8	decrease V keystone value (-1) from current setting
	4-6-2	W	R	O	T	?	?	?	?	check rotation value
		W	R	O	T	_	*	*	*	set rotation value (input value) (-20~20)
		W	R	O	T	9	9	9	9	increase rotation value (+1) from current setting
		W	R	O	T	8	8	8	8	decrease rotation value (-1) from current setting
	4-6-3	W	P	I	B	?	?	?	?	check Pincushion/Barrel value
		W	P	I	B	*	*	*	*	set Pincushion/Barrel value (input value) (-100~100)
		W	P	I	B	9	9	9	9	increase Pincushion/Barrel value (+1) from current setting
		W	P	I	B	8	8	8	8	decrease Pincushion/Barrel value (-1) from current setting
	4-6-4	W	T	L	X	?	?	?	?	check top left corner x value
		W	T	L	X	*	*	*	*	set top left corner x value (input value) (-192~192)
		W	T	L	X	9	9	9	9	increase top left corner x value (+1) from current setting
		W	T	L	X	8	8	8	8	decrease top left corner x value (-1) from current setting
		W	T	L	Y	?	?	?	?	check top left corner y value
		W	T	L	Y	*	*	*	*	set top left corner y value (input value) (-120~120)
		W	T	L	Y	9	9	9	9	increase top left corner y value (+1) from current setting
		W	T	L	Y	8	8	8	8	decrease top left corner y value (-1) from current setting
	4-6-5	W	T	R	X	?	?	?	?	check top right corner x value
		W	T	R	X	*	*	*	*	set top right corner x value (input value) (-192~192)
		W	T	R	X	9	9	9	9	increase top right corner x value (+1) from current setting
		W	T	R	X	8	8	8	8	decrease top right corner x value (-1) from current setting
		W	T	R	Y	?	?	?	?	check top right corner y value
		W	T	R	Y	*	*	*	*	set top right corner y value (input value) (-120~120)
		W	T	R	Y	9	9	9	9	increase top right corner y value (+1) from current setting
		W	T	R	Y	8	8	8	8	decrease top right corner y value (-1) from current setting
	4-6-6	W	B	L	X	?	?	?	?	check bottom left corner x value
		W	B	L	X	*	*	*	*	set bottom left corner x value (input value) (-192~192)
		W	B	L	X	9	9	9	9	increase bottom left corner x value (+1) from current setting
		W	B	L	X	8	8	8	8	decrease bottom left corner x value (-1) from current setting
		W	B	L	Y	?	?	?	?	check bottom left corner y value
		W	B	L	Y	*	*	*	*	set bottom left corner y value (input value) (-120~120)
		W	B	L	Y	9	9	9	9	increase bottom left corner y value (+1) from current setting
		W	B	L	Y	8	8	8	8	decrease bottom left corner y value (-1) from current setting

Alignment	4-6-7	W	B	R	X	?	?	?	?	check bottom right corner x value
		W	B	R	X	*	*	*	*	set bottom right corner x value (input value) (-192~192)
		W	B	R	X	9	9	9	9	increase bottom right corner x value (+1) from current setting
		W	B	R	X	8	8	8	8	decrease bottom right corner x value (-1) from current setting
		W	B	R	Y	?	?	?	?	check bottom right corner y value
		W	B	R	Y	*	*	*	*	set bottom right corner y value (input value) (-120~120)
		W	B	R	Y	9	9	9	9	increase bottom right corner y value (+1) from current setting
		W	B	R	Y	8	8	8	8	decrease bottom right corner y value (-1) from current setting
	4-6-9	W	R	S	T	_	_	_	1	Execute reset warping
	4-7-1	B	L	T	P	?	?	?	?	check top blanking value
		B	L	T	P	_	*	*	*	set top blanking value (input value) (0~360)
		B	L	T	P	9	9	9	9	increase top blanking value (+1) from current setting
		B	L	T	P	8	8	8	8	decrease top blanking value (-1) from current setting
	4-7-2	B	L	B	T	?	?	?	?	check bottom blanking value
		B	L	B	T	_	*	*	*	set bottom blanking value (input value) (0~360)
		B	L	B	T	9	9	9	9	increase bottom blanking value (+1) from current setting
		B	L	B	T	8	8	8	8	decrease bottom blanking value (-1) from current setting
	4-7-3	B	L	L	E	?	?	?	?	check left blanking value
		B	L	L	E	_	*	*	*	set left blanking value (input value) (0~534)
		B	L	L	E	9	9	9	9	increase left blanking value (+1) from current setting
		B	L	L	E	8	8	8	8	decrease left blanking value (-1) from current setting
	4-7-4	B	L	R	I	?	?	?	?	check right blanking value
		B	L	R	I	_	*	*	*	set right blanking value (input value)
		B	L	R	I	9	9	9	9	increase right blanking value (+1) from current setting
		B	L	R	I	8	8	8	8	decrease right blanking value (-1) from current setting
	4-7-5	B	R	S	T	_	_	_	1	Execute reset blanking
	4-8-1	E	D	B	L	?	?	?	?	Check edge blending status
		E	D	B	L	_	_	_	0	off
		E	D	B	L	_	_	_	1	on
	4-8-2-1	E	B	W	T	?	?	?	?	check blend width top value
		E	B	W	T	_	*	*	*	set blend width top value (input value) (0, 200~500)
		E	B	W	T	9	9	9	9	increase blend width top value (+1) from current setting
		E	B	W	T	8	8	8	8	decrease blend width top value (-1) from current setting
	4-8-2-2	E	B	W	B	?	?	?	?	check blend witdth bottom value
		E	B	W	B	_	*	*	*	set blend witdth bottom value (input value) (0, 200~500)
		E	B	W	B	9	9	9	9	increase blend witdth bottom value (+1) from current setting
		E	B	W	B	8	8	8	8	decrease blend witdth bottom value (-1) from current setting
	4-8-2-3	E	B	W	L	?	?	?	?	check blend witdth left value
		E	B	W	L	_	*	*	*	set blend witdth left value (input value) (0, 200~800)
		E	B	W	L	9	9	9	9	increase blend witdth left value (+1) from current setting
		E	B	W	L	8	8	8	8	decrease blend witdth left value (-1) from current setting
	4-8-2-4	E	B	W	R	?	?	?	?	check blend width right value
		E	B	W	R	_	*	*	*	set blend width right value (input value) (0, 200~800)
		E	B	W	R	9	9	9	9	increase blend width right value (+1) from current setting
		E	B	W	R	8	8	8	8	decrease blend width right value (-1) from current setting
	4-8-3-1	E	B	B	T	?	?	?	?	check black level uplift top value
		E	B	B	T	_	_	*	*	set black level uplift top value (input value) (0, 8, 16, 24, 32)
		E	B	B	T	9	9	9	9	increase black level uplift top value (+1) from current setting
		E	B	B	T	8	8	8	8	decrease black level uplift top value (-1) from current setting
	4-8-3-2	E	B	B	B	?	?	?	?	check black level uplift bottom value
		E	B	B	B	_	_	*	*	set black level uplift bottom value (input value) (0, 8, 16, 24, 32)
		E	B	B	B	9	9	9	9	increase black level uplift bottom value (+1) from current setting
		E	B	B	B	8	8	8	8	decrease black level uplift bottom value (-1) from current setting
	4-8-3-3	E	B	B	L	?	?	?	?	check black level uplift left value
		E	B	B	L	_	_	*	*	set black level uplift left value (input value) (0, 4, 8, 16, 20, 24, 28, 32)
		E	B	B	L	9	9	9	9	increase black level uplift left value (+1) from current setting
		E	B	B	L	8	8	8	8	decrease black level uplift left value (-1) from current setting
	4-8-3-4	E	B	B	R	?	?	?	?	check black level uplift right value
		E	B	B	R	_	_	*	*	set black level uplift right value (input value) (0, 4, 8, 16, 20, 24, 28, 32)
		E	B	B	R	9	9	9	9	increase black level uplift right value (+1) from current setting
		E	B	B	R	8	8	8	8	decrease black level uplift right value (-1) from current setting
	4-8-4-1	E	B	A	L	?	?	?	?	check blend ajust all value
		E	B	A	L	_	_	*	*	set blend ajust all value (input value) (0~32)
		E	B	A	L	9	9	9	9	increase blend ajust all value (+1) from current setting
		E	B	A	L	8	8	8	8	decrease blend ajust all value (-1) from current setting
	4-8-4-2	E	B	R	E	?	?	?	?	check blend ajust red value
		E	B	R	E	_	_	*	*	set blend ajust red value (input value) (0~32)
		E	B	R	E	9	9	9	9	increase blend ajust red value (+1) from current setting
		E	B	R	E	8	8	8	8	decrease blend ajust red value (-1) from current setting
	4-8-4-3	E	B	G	R	?	?	?	?	check blend ajust green value
		E	B	G	R	_	_	*	*	set blend ajust green value (input value) (0~32)
		E	B	G	R	9	9	9	9	increase blend ajust green value (+1) from current setting
		E	B	G	R	8	8	8	8	decrease blend ajust green value (-1) from current setting
	4-8-4-4	E	B	B	U	?	?	?	?	check blend ajust blue value
		E	B	B	U	_	_	*	*	set blend ajust blue value (input value) (0~32)
		E	B	B	U	9	9	9	9	increase blend ajust blue value (+1) from current setting
		E	B	B	U	8	8	8	8	decrease blend ajust blue value (-1) from current setting
	4-8-4-5	E	R	S	T	_	_	_	1	Execute reset edge blending
	4-8-4-5a	W	R	E	C	_	_	_	1	Execute W2 recover (Reset all alignment setting.)
	4-8-4-6	E	B	A	P	?	?	?	?	Check edge blending align pattern setting
		E	B	A	P	_	_	_	0	off
		E	B	A	P	_	_	_	1	on

Control	5-1	T	H	M	D	?	?	?	?	Check standby ECO mode setting
		T	H	M	D	_	_	_	0	off
		T	H	M	D	_	_	_	1	on
	5-2	A	P	O	W	?	?	?	?	Check auto power off mode setting
		A	P	O	W	_	_	_	0	off
		A	P	O	W	_	_	_	1	on
	5-3	A	R	E	S	?	?	?	?	Check auto power on mode setting
		A	R	E	S	_	_	_	0	off
		A	R	E	S	_	_	_	1	on
	5-4	L	N	R	S	?	?	?	?	Check projector control mode setting *If setting is LAN, it is not returned any code by projector.
		L	N	R	S	_	_	_	0	RS232 *The control setting change to RS232C (This command is only used by network software.)
		L	N	R	S	_	_	_	1	LAN *The control setting change to LAN (This command is only used by RS232C control). It is not returned any code by projector, because RS232C is disable.
	5-4-1	N	I	P	A	?	?	?	?	Check IP address
		N	I	P	A	**********				Set IP address 12digits are depended on user environment. Therefore, x=0~9, but each 3digits are over 255, return ERR
	5-4-2	N	S	B	N	?	?	?	?	Check subnet mask
		N	S	B	N	**********				Set subnet mask 12digits are depended on user environment. Therefore, x=0~9, but each 3digits are over 255, return ERR
	5-4-3	N	G	T	W	?	?	?	?	Check gateway address
		N	G	T	W	**********				Set gateway address 12digits are depended on user environment. Therefore, x=0~9, but each 3digits are over 255, return ERR
	5-4-4	N	D	H	C	?	?	?	?	Check DHCP setting
		N	D	H	C	_	_	_	0	Off
		N	D	H	C	_	_	_	1	On
	5-5	I	M	S	I	?	?	?	?	Check startuo Logo On/Off setting
		I	M	S	I	_	_	_	0	Off
		I	M	S	I	_	_	_	1	On
	5-6	T	R	G	R	?	?	?	?	Check trigger setting
		T	R	G	R	_	_	_	1	5:04
		T	R	G	R	_	_	_	2	4:03
		T	R	G	R	_	_	_	3	16:10
		T	R	G	R	_	_	_	4	16:9
		T	R	G	R	_	_	_	5	1.88
		T	R	G	R	_	_	_	6	2.35
		T	R	G	R	_	_	_	7	letter box
		T	R	G	R	_	_	_	8	native
		T	R	G	R	_	_	_	9	Unscaled
		T	R	G	R	_	_	1	0	Auto
	5-7	I	N	S	E	?	?	?	?	Check Auto Search setting
		I	N	S	E	_	_	_	0	Off
		I	N	S	E	_	_	_	1	On
	5-8	D	B	L	K	?	?	?	?	Check Dynamic Black setting
		D	B	L	K	_	_	_	0	Off
		D	B	L	K	_	_	_	1	On
	5-9	M	E	L	A	?	?	?	?	Check language setting
		M	E	L	A	_	_	_	1	English
		M	E	L	A	_	_	_	2	French
		M	E	L	A	_	_	_	3	Spanish
		M	E	L	A	_	_	_	4	German
		M	E	L	A	_	_	_	5	Portuese
		M	E	L	A	_	_	_	6	Chinese Simpified
		M	E	L	A	_	_	_	7	Chinese Traditional
		M	E	L	A	_	_	_	8	Japanese
		M	E	L	A	_	_	_	9	Korean
SERVICE	6-1	M	N	R	D	_	_	_	1	Get model name
	6-2	S	N	R	D	_	_	_	1	Get serial no.
	6-3	S	W	V	R	_	_	_	1	Get software version
	6-4-1	I	C	H	K	?	?	?	?	Get current active source
	6-4-2	P	C	H	K	?	?	?	?	Get current PIP source
	6-5	P	X	C	L	?	?	?	?	Get pixel clock
	6-6	S	I	F	O	?	?	?	?	Get signal format
	6-7-1	T	F	R	Q	_	_	_	1	Get H frequency
	6-7-2	T	F	R	Q	_	_	_	2	Get V frequency
	6-8	T	L	T	T	_	_	_	1	Get lamp1 hours
	6-9	T	L	T	T	_	_	_	2	Get lamp2 hours
	6-10	P	J	R	T	?	?	?	?	Get projector run time
	6-11	B	L	O	L	?	?	?	?	Check blue only setting
		B	L	O	L	_	_	_	0	Off
		B	L	O	L	_	_	_	1	On
	6-12	A	L	R	E	_	_	_	1	Execute factory reset

	A-1	P	O	W	R	_	_	_	1	power on
	A-2	P	O	W	R	_	_	_	0	power off
	A-3	P	I	M	U	_	_	_	0	Picture mute off
		P	I	M	U	_	_	_	1	Picture mute on
	A-4	S	T	A	T	?	?	?	?	0 = standby 1 = warm up 2 = imaging 3 = cooling 4 = warning
Others	A-5	E	R	R	C	?	?	?	?	0=ErrMsgOverTempInlet
										1=ErrMsgOverTempDMD
										2=ErrMsgOverTempLamp1
										3=ErrMsgOverTempLamp2
										6=ErrMsgOverTempBallast1
										7=ErrMsgOverTempBallast2
										10=ErrMsgFanInitError
										1=ErrMsgOverTempDMD
										2=ErrMsgOverTempLamp1
										3=ErrMsgOverTempLamp2
										6=ErrMsgOverTempBallast1
										7=ErrMsgOverTempBallast2
										10=ErrMsgFanInitError
										11=ErrMsgFan1RotateError
										12=ErrMsgFan2RotateError
										13=ErrMsgFan3RotateError
										14=ErrMsgFan4RotateError
										15=ErrMsgFan5RotateError
										16=ErrMsgFan6RotateError
										17=ErrMsgFan7RotateError
										18=ErrMsgFan8RotateError
										19=ErrMsgFan9RotateError
										20=ErrMsgFan10RotateError
										21=ErrMsgFan11RotateError
										22=ErrMsgFan12RotateError
										23=ErrMsgFan13RotateError
										27=ErrMsgDMDInitFai
										28=ErrMsgLampInitFail
										29=ErrMsgLamp1LitFail
										30=ErrMsgBallastUart1Error
										31=ErrMsgExGpioFail
										32=ErrMsgInterLockOpen
										33=ErrMsgGF9450NoResponse
										34=ErrMsgSystemI2cFail
										35=ErrMsgSoftwareI2cFail
										36=ErrMsgEepromFail
										37=ErrMsgEdidFail
										38=ErrMsgEepVersionFail
										39=ErrMsgRstGennum
										40= ErrMsgLamp2LitFail
										41= ErrMsgBallast2UartError
										42=ErrMsgGtInletTp
										43=ErrMsgGtDmdTp
										44=ErrMsgInletTempSensorFail
										45=ErrMsgDMDTempSensorFail
										46=ErrMsgGeoSystemFail
										47=ErrMsgLampDoor1Open
										48=ErrMsgLampDoor2Open
										49= ErrMsgLCUFail
										50= ErrMsgLCUVerFai
										51= ErrMsgLowTempStart
										52= ErrMsgDDP3021ASICError
										53= ErrMsgDDP3021MainRLDRam
										54= ErrMsgDDP3021SlaveRLDRa
										55= ErrMsgColorWheelSpin
										56= ErrMsgFETempSensorFail
										57= ErrMsgOverTempFE
										58=ErrMsgColorWheelCover
										59=ErrMsgAllBallastUartError
										60= ErrMsgHDMIDecoderFail
										62= ErrMsgAD9984Fail
										63= ErrMsgGeoBootFail
										64= ErrMsgLamp1WentOut
										65= ErrMsgLamp2WentOut
										66= ErrMsgMotorInit
	A-8	M	O	V	E	?	?	?	?	Get firmware version of motor board
	A-9	H	W	V	R	?	?	?	?	Get hardware version of main PCB

"ky" commands	B-1	P	O	W	R	_	_	_	1	
	B-2	P	O	W	R	_	_	_	0	
	B-3	K	Y	M	N	_	_	_	1	
	B-4	K	Y	E	X	_	_	_	1	
	B-5	K	Y	I	N	_	_	_	1	
	B-6	K	Y	P	C	_	_	_	1	
	B-7	K	Y	N	W	_	_	_	1	
	B-8	K	Y	S	Y	_	_	_	1	
	B-9	K	Y	A	S	_	_	_	1	
	B-10	K	Y	P	P	_	_	_	1	
	B-11	K	Y	O	S	_	_	_	1	
	B-12	K	Y	F	R	_	_	_	1	
	B-13	K	Y	L	M	_	_	_	1	
	B-14	K	Y	I	F	_	_	_	1	
	B-15	K	Y	S	T	_	_	_	1	
	B-16	K	Y	I	S	_	_	_	1	
	B-17	K	Y	L	S	_	_	_	1	
	B-18	K	Y	T	T	_	_	_	1	
	B-19	K	Y	E	N	_	_	_	1	
	B-20	K	Y	U	P	_	_	_	1	
	B-21	K	Y	D	O	_	_	_	1	
	B-22	K	Y	L	E	_	_	_	1	
	B-23	K	Y	R	I	_	_	_	1	
	B-24	L	N	F	O	9	9	9	9	
	B-25	L	N	F	O	8	8	8	8	
	B-26	L	N	Z	O	9	9	9	9	
	B-27	L	N	Z	O	8	8	8	8	