



RS232 Protocol Function List

Baud Rate : 19200
 Data Bits: 8
 Parity: None
 Stop Bits: 1
 Flow Control : None
 UART16550 FIFO: Disable

Note: It supports data rates from 9600 to 115200 bps. The default is 19200 bps. Depending on the equipment, a lower baud rate may be recommended for long cable runs.

Write Command

~	X	X	X	X	X		n	CR
Lead Code	Projector ID		Command			space	variable	carriage return
Prefix	00~99 (00: All projectors)		000~999				0~9999	suffix

Response Format

Pass: Fail:

Read Command

~	X	X	X	X	X		n	CR
Lead Code	Projector ID		Command			space	variable	carriage return
Prefix	00~99 (00: All projectors)		000~999				0~9999	suffix

Response Format

Pass: Fail:

System Automatically Send

I	N	F	O	n
				variable

Note: There is a <CR> after all ASCII commands. 0D is the HEX code for <CR> in ASCII code.

Character to HEX table

Character	HEX
~	7E
0	30
1	31
2	32
3	33
4	34
5	35
6	36
7	37
8	38
9	39
Space	20
CR (Enter)	0D

e.g.

ASCII to HEX

RS232 Command	~	0	0	1	9	5		1	CR
HEX	7E	30	30	31	39	35	20	31	0D

Main Menu	Sub Menu	Setting	Level 4
Picture	Color Mode	[None]	
		Bright	
		PC	
		Movie	
		Blending	
		Game	
		User	
	Wall Color	White	
		Light Yellow	
		Light Blue	
		Pink	
	Brightness	Dark Green	
		-	
		0~100	
	Contrast	0 ~ 8 (Blending)	
		+	
	Sharpness	-	
		0~31	
	Satuation	(VGA Graphic only)	
	Hue	0~100(VGA Video only)	
		0~100(VGA Video only)	
	Gamma	0	Cubit
		1	Enhphoto
		2	2.2
		3	2.4
	Color Temperature	0	6500K
		1	7500K
		2	8300K
	Color Matching	Color	W/R / G / B / C / Y / M /
		(W) Red	1 ~ 199
		(W) Green	1 ~ 199
		(W) Blue	1 ~ 199
		(R) Saturation	0 ~ 199
		(R) Hue	-99~99
		(R) Gain	1 ~ 199
		(G) Saturation	0 ~ 199
		(G) Hue	-99~99
		(G) Gain	1 ~ 199
		(B) Saturation	0 ~ 199
		(B) Hue	-99~99
		(B) Gain	1 ~ 199
		(C) Saturation	0 ~ 199
(C) Hue		-99~99	
(C) Gain		1 ~ 199	
(Y) Saturation		0 ~ 199	
(Y) Hue	-99~99		
(Y) Gain	1 ~ 199		
(M) Saturation	0 ~ 199		

Write Command					Response			
CMD					spac	Set Para.	Fail	Pass
~	X	X	2	0			F	P
						2	F	P
						1	F	P
						3	F	P
						12	F	P
						19	F	P
						5	F	P
						0	F	P
						7	F	P
~	X	X	5	0	6		F	P
						4	F	P
						5	F	P
						8	F	P
~	X	X	4	6		1	F	P
~	X	X	2	1		0~100	F	P
						(0~8)	F	P
~	X	X	4	6		2	F	P
~	X	X	4	7		1	F	P
~	X	X	2	2		0~100	F	P
~	X	X	4	7		2	F	P
~	X	X	2	3		0~31	F	P
~	X	X	4	5		0~100	F	P
~	X	X	4	4		0~100	F	P
~	X	X	3	5		16	F	P
~	X	X	3	5		15	F	P
~	X	X	3	5		4	F	P
~	X	X	3	5		12	F	P
~	X	X	3	6		10	F	P
						11	F	P
						12	F	P
~	X	X	3	4	5	1 ~ 199	F	P
~	X	X	3	4	6	1 ~ 199	F	P
~	X	X	3	4	7	1 ~ 199	F	P
~	X	X	3	3	3	0 ~ 199	F	P
~	X	X	3	2	7	-99~99	F	P
~	X	X	3	3	9	1 ~ 199	F	P
~	X	X	3	3	4	0 ~ 199	F	P
~	X	X	3	2	8	-99~99	F	P
~	X	X	3	4	0	1 ~ 199	F	P
~	X	X	3	3	5	0 ~ 199	F	P
~	X	X	3	2	9	-99~99	F	P
~	X	X	3	4	1	1 ~ 199	F	P
~	X	X	3	3	6	0 ~ 199	F	P
~	X	X	3	3	0	-99~99	F	P
~	X	X	3	4	2	1 ~ 199	F	P
~	X	X	3	3	7	0 ~ 199	F	P
~	X	X	3	3	1	-99~99	F	P
~	X	X	3	4	3	1 ~ 199	F	P
~	X	X	3	3	8	0 ~ 199	F	P

Read Command				Response						
CMD				CMD Value	Fail	Pass				
~	X	X	1	2	3	1	F	O	k	0
										1
										2
										3
										4
										5
										6
~	X	X	1	2	5	1	F	O	k	nnnn
~	X	X	1	2	6	1	F	O	k	nnnn
~	X	X	1	2	8	1	F	O	k	10
										11
										12

Note: Some commands are not supported, it's depends on models

Main Menu	Sub Menu	Setting	Level 4	
		(M) Hue	-99~99	
		(M) Gain	1 ~ 199	
		[None]		
Screen	Aspect Ratio	4:3		
		16:9		
		16:10		
		Auto		
		Phase	0~31	
	Clock	-5 ~ 5		
	H. Position	-5 ~ 5	depend on input signal	
	V. Position	-5 ~ 2	depend on input signal	
	Digital Zoom	Zoom Plus		
		0~10		
		Zoom Minus		
	Ceiling	Front		
		Rear		
		Front Ceiling		
		Rear Ceiling		
	V Keystone	-40 ~ 40		
	HKeystone	-40 ~ 40		
Size	0 ~ -25			
Image H Shift	250 ~ -250			
Image V Shift	100 ~ -100			
Setting	Language	English		
		Deutsch		
		Français		
		Italiano		
		Español		
		Português		
		Polski		
		Nederlands		
		Svenska		
		Norwegian		
		Suomi		
		ελληνικά		
		繁體中文		
		簡體中文		
		日本語		
		한국어		
		Русский		
		Magyar		
		Čeština		
		عربي		
		ไทย		
		Türkçe		
		فارسی		
		Dansk		
		Vietnamese		
		Indonesia		

Write Command					Response	
CMD	spac	Set Para.	Fail	Pass		
~ X X 3 3 2		-99~99	F	P		
~ X X 3 4 4		1 ~ 199	F	P		
		1	F	P		
		2	F	P		
~ X X 6 0		3	F	P		
		7	F	P		
~ X X 7 4		0~31	F	P		
~ X X 7 3		-5~5	F	P		
~ X X 7 5		-5~5	F	P		
~ X X 7 6		-5~5	F	P		
~ X X 0 5		1	F	P		
~ X X 6 2		0~10	F	P		
~ X X 0 6		1	F	P		
		1	F	P		
~ X X 7 1		2	F	P		
		3	F	P		
		4	F	P		
~ X X 6 6		-40 ~ 40	F	P		
~ X X 6 5		-40 ~ 40	F	P	X	
~ X X 6 7		0 ~ -25	F	P	X	
~ X X 6 8		250 ~ -250	F	P		
~ X X 6 9		100 ~ -100	F	P		
		1	F	P		
		2	F	P		
		3	F	P		
		4	F	P		
		5	F	P		
		6	F	P		
		7	F	P		
		8	F	P		
		9	F	P		
		10	F	P		
		11	F	P		
		12	F	P		
~ X X 7 0		13	F	P		
		14	F	P		
		15	F	P		
		16	F	P		
		17	F	P		
		18	F	P		
		19	F	P		
		20	F	P		
		21	F	P		
		22	F	P		
		23	F	P		
		24	F	P		
		25	F	P		
		26	F	P		

Read Command				Response		
CMD	CMD Value	Fail	Pass			
						0
						1
~ X X 1 2 7	1	F		O k		2
						3
						7
						0
~ X X 1 2 9	1	F		O k		2
						1
						3
~ X X 5 4 3	3	F		O k		%
~ X X 5 4 3	4	F		O k		%
~ X X 5 4 3	5	F		O k		%
~ X X 5 4 3	6	F		O k		%
~ X X 5 4 3	7	F		O k		%

Note: Some commands are not supported, it's depends on models

Main Menu	Sub Menu	Setting	Level 4	
		[Open Info Menu]		
		[Close Info Menu]		
	Information	Model Name		
		SNID		
		Main Source Resolution		
		SW Version (DDP/MCU/LAN)		
		Aspect Ratio		
		SSI Hours (Normal/Eco)		
		IP Address		
		Network Status	Disconnected Connected	
3D		3D	Auto	
			On	
	Off			
	3D Format	Frame Packing		
		Side-by-Side (Half)		
		Top and Bottom		
		Frame Sequential		
		Field sequential		
	3D Invert	Off		
		On		
1080p @ 24	96Hz/144Hz			
Network	Status	Connected Disconnected		
	DHCP Client	Off On		
	IP Address			
	Subnet Mask			
	Gateway			
	DNS			
	Store			
	MAC Address			
	Group Name			
	Projector Name			
Location				
Contact				

Other Items

Power Off		
Power On		
Re-Sync		
AV Mute	Off On	
Mute	Off On	
Freeze	Unfreeze Freeze	
System Auto Send	Standby Mode	
	LD Fail	
	Fan Lock	
	Over Temperature	
	Color Wheel Unexpected Stop	

Write Command				Response	
CMD	spac	Set Para.		Fail	Pass
~ X X 3 1 3		1		F	P
		0 & 2		F	P
~ X X 2 3 0		4		F	P
		5			
		6		F	P
		7		F	P
~ X X 4 0 5		1		F	P
		2		F	P
		3		F	P
		9		F	P
		0		F	P
~ X X 2 3 1		1		F	P

~ X X 0 0		0 & 2		F	P
		1		F	P
~ X X 0 1		1		F	P
~ X X 0 2		0 & 2		F	P
		1		F	P
~ X X 0 3		0 & 2		F	P
		1		F	P
~ X X 0 4		0 & 2		F	P
		1		F	P

Read Command				Response			
CMD		CMD Value		Fail	Pass		
~ X X 1 5 1		1		F	O	k	n
~ X X 3 5 3		1		F	O	k	nnnnnnnnnnnnnnnn
~ X X 1 5 0		4		F	O	k	nnnnnnnnnnnnnn
~ X X 1 2 2		1		F	O	k	nnnnnnnnnnnnnn
~ X X 1 2 7		1		F	O	k	n
~ X X 1 0 8		1		F	O	k	nnnnnnnn/nnnnnnnn
~ X X 8 7		3		F	O	k	nnn_nnn_nnn_nnn
							0
~ X X 8 7		1		F	O	k	1
~ X X 8 7		1		F	O	k	1
							0
~ X X 1 5 0		17		F	O	k	0
							1
~ X X 8 7		3		F	O	k	nnn_nnn_nnn_nnn
~ X X 5 5 5		1		F	O	k	nn:nn:nn:nn:nn

~ X X 1 2 4		1		F	O	k	0 & 2
							1
~ X X 3 5 5		1		F	O	k	0
		1		F	O	k	1
~ X X 3 5 6		1		F	O	k	0
		1		F	O	k	1
							0
							4
							6
							7
					I	N	F
							O
							12

Note: Some commands are not supported, it's depends on models

Note *1 0

Power	Light Source Life				Input Source	Firmware Version				Display Mode		
a	b	b	b	b	c	c	d	d	d	d	e	e
a=0 Power Off	Light Source Life = nnnn				cc=00 None		#	#	#	#	ee=00 None	
a=1 Power On	Calucalte by each mode formula				cc=01 DVI						ee=01 Presentation	
					cc=02 VGA1						ee=02 Bright	
					cc=03 VGA2						ee=03 Movie	
					cc=04 S-Video						ee=04 sRGB	
					cc=05 Video						ee=05 User	
					cc=06 BNC						ee=06 User2	
					cc=07 HDMI1						ee=07 Blackboard	
					cc=08 HDMI2						ee=08 Classroom	
					cc=09 Wireless						ee=09 3D	
					cc=10 Compnent						ee=10 DICOM SIM.	
					cc=11 Flash drive						ee=11 Film	
					cc=12 Network Display(Presenter)						ee=12 Game	
					cc=13 USB Display						ee=13 Cinema	
					cc=14 HDMI3/Dongle						ee=14 Vivid	
					cc=15 DisplayPort						ee=15 ISF Day	
					cc=16 HDBaseT						ee=16 ISF Night	
											ee=18 Blending	

Note: Some commands are not supported, it's depends on models

