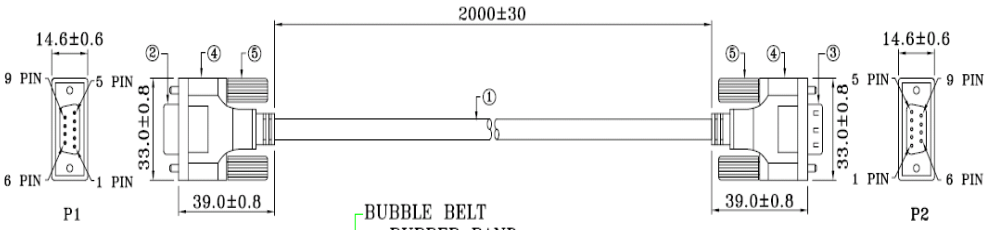
BenQ RS232 Commands

Table of Content

1. RS232 Cable Requirement and Pin Assignment

Cable Requirement:

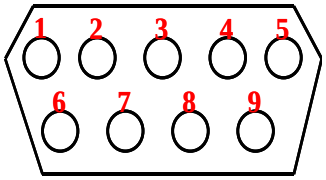


WIRE ARRANGEMENT		
P1	COLOR	P2
1	BLACK	1
2	BROWN	3
3	RED	2
4	ORANGE	4
5	YELLOW	5
6	GREEN	6
7	BLUE	7
8	PURPLE	8
9	GRAY	9
CASE	DRAIN WIRE	CASE

(to be checked)

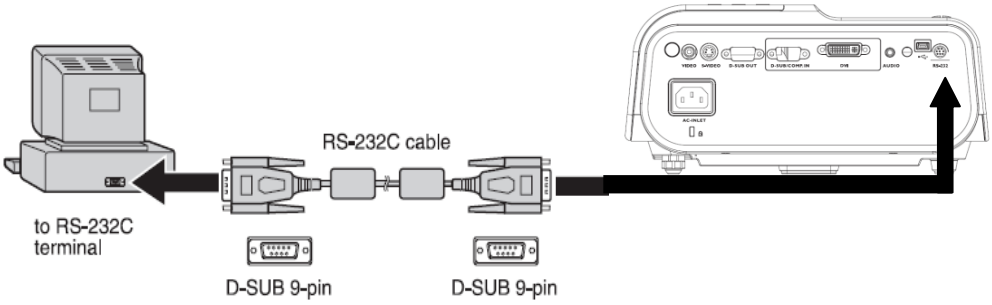
RS232 pin assignment

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



2. RS232 Connection

Below shows the illustration of connection between PC and Projector.



Note:

- Make sure that your computer and projector are turned off before connection.
- Power on the computer first, and then plug the power cord of the projector.
- (It may cause Com port incorrect function, if you do not follow this instruction)
- Adapters may be necessary depending on the PC connected to this projector.

3. Interface Settings

RS-232 protocol	
Baud Rate	115200 bps (default) Changeable(2400/4800/9600/14400/19200/38400/57600/115200) Setting in OSD menu
Data Length	8 bit
Parity Check	None
Stop Bit	1 bit
Flow Control	None

Software specification

1. Each input character will be echoed and All the echo text will be same with the command you execute except query command
2. When give “Enter”(ASCII 13), it will echo 3E,00. It means projector is ready to accept RS-232 command.
3. If no any command, it should echo 0D,0A,00 after 5 seconds.(5 sec time out)
4. If the command format is illegal, it will echo “Illegal format”.
5. If the command format is correct, but it is not valid for this model, it will echo “Unsupported item”.
6. If the command format is correct, but can’t be execute in some condition, it will echo “Block item”.

Note: 1.Item 5 and item 6 is not support at power saving mode (standby power < 1W).
2.Each input upper case and lower case character should be action.

4. Command Table

***Note: The available commands are different by model. (ex: source, audio settings, aspect ratio..etc), please refer to the user manual for the further information.**

Function	Type	Operation	ASCII
Power	Write	Power On	<CR>*pow=on#<CR>
	Write	Power off	<CR>*pow=off#<CR>
	Read	Power Status	<CR>*pow=?#<CR>
Source Selection	Write	COMPUTER/YPbPr	<CR>*sour=RGB#<CR>
	Write	COMPUTER 2/YPbPr2	<CR>*sour=RGB2#<CR>
	Write	Component	<CR>*sour=ypbr#<CR>
	Write	DVI-A	<CR>*sour=dviA#<CR>
	Write	DVI-D	<CR>*sour=dvid#<CR>
	Write	HDMI	<CR>*sour=hdmi#<CR>
	Write	HDMI 2	<CR>*sour=hdmi2#<CR>
	Write	Composite	<CR>*sour=vid#<CR>
	Write	S-Video	<CR>*sour=svid#<CR>
	Write	Network	<CR>*sour=network#<CR>
	Write	USB Display	<CR>*sour=usbdisplay#<CR>
	Write	USB Reader	<CR>*sour=usbreader#<CR>
	Read	Current source	<CR>*sour=?#<CR>
Audio Control	Write	Mute On	<CR>*mute=on#<CR>
	Write	Mute Off	<CR>*mute=off#<CR>
	Read	Mute Status	<CR>*mute=?#<CR>
	Write	Volume +	<CR>*vol=+#<CR>
	Write	Volume -	<CR>*vol=-#<CR>
	Read	Volume Status	<CR>*vol=?#<CR>
	Write	Mic. Volume +	<CR>*micvol=+#<CR>
	Write	Mic. Volume -	<CR>*micvol=-#<CR>
	Read	Mic. Volume Status	<CR>*micvol=?#<CR>
Audio source select	Write	Audio pass Through off	<CR>*audiosour=off#<CR>
	Write	Audio-Computer1	<CR>*audiosour=RGB#<CR>
	Write	Audio-Computer2	<CR>*audiosour=RGB2#<CR>
	Write	Audio-Video/S-Video	<CR>*audiosour=vid#<CR>
	Write	Audio-Component	<CR>*audiosour=ypbr#<CR>
	Write	Audio-HDMI	<CR>*audiosour=hdmi#<CR>
	Write	Audio-HDMI2	<CR>*audiosour=hdmi2#<CR>

	Read	Audio pass Status	<CR>*audiosour=?#<CR>
Picture Mode	Write	Dynamic	<CR>*appmod=dynamic#<CR>
	Write	Presentation	<CR>*appmod=preset#<CR>
	Write	sRGB	<CR>*appmod=srgb#<CR>
	Write	Bright	<CR>*appmod=bright#<CR>
	Write	Living Room	<CR>*appmod=livingroom#<CR>
	Write	Game	<CR>*appmod=game#<CR>
	Write	Cinema	<CR>*appmod=cine#<CR>
	Write	Standard	<CR>*appmod=std#<CR>
	Write	User1	<CR>*appmod=user1#<CR>
	Write	User2	<CR>*appmod=user2#<CR>
	Write	User3	<CR>*appmod=user3#<CR>
	Read	Picture Mode	<CR>*appmod=?#<CR>
Picture Setting	Write	Contrast +	<CR>*con=+#<CR>
	Write	Contrast -	<CR>*con=-#<CR>
	Read	Contrast value	<CR>*con=?#<CR>
	Write	Brightness +	<CR>*bri=+#<CR>
	Write	Brightness -	<CR>*bri=-#<CR>
	Read	Brightness value	<CR>*bri=?#<CR>
	Write	Color +	<CR>*color=+#<CR>
	Write	Color -	<CR>*color=-#<CR>
	Read	Color value	<CR>*color=?#<CR>
	Write	Sharpness +	<CR>*sharp=+#<CR>
	Write	Sharpness -	<CR>*sharp=-#<CR>
	Read	Sharpness value	<CR>*sharp=?#<CR>
	Write	Color Temperature-Warmer	<CR>*ct=warmer#<CR>
	Write	Color Temperature-Warm	<CR>*ct=warm#<CR>
	Write	Color Temperature-Normal	<CR>*ct=normal#<CR>
	Write	Color Temperature-Cool	<CR>*ct=cool#<CR>
	Write	Color Temperature-Cooler	<CR>*ct=cooler#<CR>
	Read	Color Temperature Status	<CR>*ct=?#<CR>
	Write	Aspect 4:3	<CR>*asp=4:3#<CR>
	Write	Aspect 16:9	<CR>*asp=16:9#<CR>

	Write	Aspect 16:10	<CR>*asp=16:10#<CR>
	Write	Aspect Auto	<CR>*asp=AUTO#<CR>
	Write	Aspect Real	<CR>*asp=REAL#<CR>
	Write	Aspect Letterbox	<CR>*asp=LBOX#<CR>
	Write	Aspect Wide	<CR>*asp=WIDE#<CR>
	Write	Aspect Anamorphic	<CR>*asp=ANAM#<CR>
	Read	Aspect Status	<CR>*asp=?#<CR>
	Write	Digital Zoom In	<CR>*zoomI#<CR>
	Write	Digital Zoom out	<CR>*zoomO#<CR>
	Write	Auto	<CR>*auto#<CR>
	Write	Brilliant color on	<CR>*BC=on#<CR>
	Write	Brilliant color off	<CR>*BC=off#<CR>
	Read	Brilliant color status	<CR>*BC=?#<CR>
Operation Settings	Write	Projector Position-Front Table	<CR>*pp=FT#<CR>
	Write	Projector Position-Rear Table	<CR>*pp=RE#<CR>
	Write	Projector Position-Rear Ceiling	<CR>*pp=RC#<CR>
	Write	Projector Position-Front Ceiling	<CR>*pp=FC#<CR>
	Write	Quick auto search	<CR>*QAS=on#<CR>
	Write	Quick auto search	<CR>*QAS=off#<CR>
	Read	Quick auto search status	<CR>*QAS=?#<CR>
	Read	Projector Position Status	<CR>*pp=?#<CR>
	Write	Direct Power On-on	<CR>*directpower=on#<CR>
	Write	Direct Power On-off	<CR>*directpower=off#<CR>
	Read	Direct Power On-Status	<CR>*directpower=?#<CR>
	Write	Signal Power On-on	<CR>*autopower=on#<CR>
	Write	Signal Power On-off	<CR>*autopower=off#<CR>
	Read	Signal Power On-Status	<CR>*autopower=?#<CR>
	Write	Standby Settings-Network on	<CR>*standbynet=on#<CR>
	Write	Standby Settings-Network off	<CR>*standbynet=off#<CR>
	Read	Standby	<CR>*standbynet=?#<CR>

		Settings-Network Status	
	Write	Standby Settings-Microphone on	<CR>*standbymic=on#<CR>
	Write	Standby Settings-Microphone off	<CR>*standbymic=off#<CR>
	Read	Standby Settings-Microphone Status	<CR>*standbymic=?#<CR>
	Write	Standby Settings-Monitor Out on	<CR>*standbymnt=on#<CR>
	Write	Standby Settings-Monitor Out off	<CR>*standbymnt=off#<CR>
	Read	Standby Settings-Monitor Out Status	<CR>*standbymnt=?#<CR>
Baud Rate	Write	2400	<CR>*baud=2400#<CR>
	Write	4800	<CR>*baud=4800#<CR>
	Write	9600	<CR>*baud=9600#<CR>
	Write	14400	<CR>*baud=14400#<CR>
	Write	19200	<CR>*baud=19200#<CR>
	Write	38400	<CR>*baud=38400#<CR>
	Write	57600	<CR>*baud=57600#<CR>
	Write	115200	<CR>*baud=115200#<CR>
	Read	Current Baud Rate	<CR>*baud=?#<CR>
Lamp Control	Read	Lamp Hour	<CR>*ltim=?#<CR>
	Read	Lamp2 Hour	<CR>*ltim2=?#<CR>
	Write	Normal mode	<CR>*lampm=lnor#<CR>
	Write	Eco mode	<CR>*lampm=eco#<CR>
	Write	Smart Eco mode	<CR>*lampm=seco#<CR>
	Write(雙燈)	Dual Brightest	<CR>* lampm =dualbr#<CR>
	Write(雙燈)	Dual Reliable	<CR>* lampm =dualre#<CR>
	Write(雙燈)	Single Alternative	<CR>* lampm =single#<CR>
	Write(雙燈)	Single Alternative Eco	<CR>* lampm =singleeco#<CR>
	Read	Lamp Mode Status	<CR>*lampm=?#<CR>
Miscellaneous	Read	Model Name	<CR>*modelname=?#<CR>
	Write	Blank On	<CR>*blank=on#<CR>
	Write	Blank Off	<CR>*blank=off#<CR>
	Read	Blank Status	<CR>*blank=?#<CR>

	Write	Freeze On	<CR>*freeze=on#<CR>
	Write	Freeze Off	<CR>*freeze=off#<CR>
	Read	Freeze Status	<CR>*freeze=?#<CR>
	Write	Menu On	<CR>*menu=on#<CR>
	Write	Menu Off	<CR>*menu=off#<CR>
	Write	Up	<CR>*up#<CR>
	Write	Down	<CR>*down#<CR>
	Write	Right	<CR>*right#<CR>
	Write	Left	<CR>*left#<CR>
	Write	Enter	<CR>*enter#<CR>
	Write	3D Sync Off	<CR>*3d=off#<CR>
	Write	3D Sync Top Bottom	<CR>*3d=tb#<CR>
	Write	3D Sync Frame Sequential	<CR>*3d=fs#<CR>
	Read	3D Sync Status	<CR>*3d=?#<CR>
	Write	Remote Receiver-front+rear	<CR>*rr=fr#<CR>
	Write	Remote Receiver-front	<CR>*rr=f#<CR>
	Write	Remote Receiver-rear	<CR>*rr=r#<CR>
	Read	Remote Receiver Status	<CR>*rr=?#<CR>
	Write	Instant On-on	<CR>*ins=on#<CR>
	Write	Instant On-off	<CR>*ins=off#<CR>
	Read	Instant On Status	<CR>*ins=?#<CR>
	Write	Lamp Saver Mode-on	<CR>*lpsaver=on#<CR>
	Write	Lamp Saver Mode-off	<CR>*lpsaver=off#<CR>
	Read	Lamp Saver Mode Status	<CR>*lpsaver=?#<CR>
	Write	Projection Log In Code on	<CR>*prjlogincode=on#<CR>
	Write	Projection Log In Code off	<CR>*prjlogincode=off#<CR>
	Read	Projection Log In Code Status	<CR>*prjlogincode=?#<CR>
	Write	Broadcasting on	<CR>*broadcasting=on#<CR>
	Write	Broadcasting off	<CR>*broadcasting=off#<CR>
	Read	Broadcasting Status	<CR>*broadcasting=?<CR>
	Write	AMX Device	<CR>*amxdd=on#<CR>

		Discovery-on	
	Write	AMX Device Discovery-off	<CR>*amxdd=off#<CR>
	Read	AMX Device Discovery Status	<CR>*amxdd=?#<CR>
	Read	Mac Address	<CR>*macaddr=?#<CR>
	Write	High Altitude mode on	<CR>*Highaltitude=on#<CR>
	Write	High Altitude mode off	<CR>*Highaltitude=off#<CR>
	Read	High Altitude mode status	<CR>*Highaltitude=?#<CR>