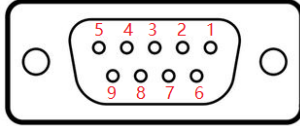


RS-232 Cable Specifications

Make sure the RS-232 cable matches the cable specification design.

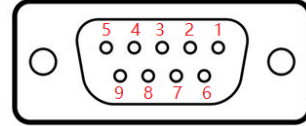
PC COM Port

DSUB-9P(Female)



Tekspring RS-232 Port

DSUB-9P(Female)



PIN	NAME	CABLE CONNECTOR	NAME	PIN
1	CD	-----	CD	1
2	RXD	=====	RXD	2
3	TXD	=====	TXD	3
4	DTR	-----	DTR	4
5	SG	-----	SG	5
6	DSR	-----	DSR	6
7	RTS	-----	RTS	7
8	CTS	-----	CTS	8
9	RI(Cl)	-----	RI(Cl)	9

RS-232 Transmission Specifications

- ◆ Data bit : 8bit
- ◆ Stop bit : 1bit
- ◆ Parity bit : None
- ◆ Flow Control : None
- ◆ Baud rate : 9600bps

RS-232 Communication Format

Send Format (Host command to Device)

Offset	Field	Size(Byte)	Value	Description
0	Send Code	1	52	Host command to Device
1	Type Code	1	0B	Host set parameter to Device
2	DataLength code	1	04	The length of the data
3	Data[0]...Data[3]	4	Group,index ,Vaule	See the Command Table for reference
7	Check Sum Code	1	value	See the Command Table for reference

Send Format (Device return to Host)

Offset	Field	Size(Byte)	Value	Description
0	Receive Code	1	53	Device return to Host
1	Type Code	1	0C	Device return to Host
2	DataLength code	1	04	The length of the data
3	Data[0]...Data[3]	4	Data[0]:80 Data[1]:00 Data[2]:00 Data[3]:Value	If send code OK Data[3]:01 If send code Failed Data[3]: 00
7	Check Sum Code	1	value	See the Command Table for reference

Send Format: 52 + 0B + 04+ Data[0] + Data[1] + Data[2] + Data[3] + CheckSum

Receive Format: 53 + 0C + 04+ 80 + 00 + 00 + Data[3] + CheckSum

Example one: Virtual Remote Key Function

Step one:

Send : 52,0B,04,01,00,A1,01,04 (ZOOM IN Key Down)
 Receive : 53,0C,04,80,00,00,01,E4 (Check the send code is OK return 01)

Step two:

Send : 52,0B,04,01,00,A1,00,03 (ZOOM IN Key Up)
 Receive : 53,0C,04,80,00,00,01,E4

When send the two codes, we do the ZOOM IN function.

Example two: Setting Function

Send : 52,0B,04,40,01,03,02,A7 (Command: Image Size 5M)
 Receive : 52,0B,04,01,00,A1,01,04 (Check the send code OK return 01)

When send the code, we set the Image Size 5M function.

RS-232 Send Command Table

Virtual the Remote Key	Code
Power Key Down	52,0B,04,01,00,A0,01,03
Power Key Up	52,0B,04,01,00,A0,00,03
SNAP Key Down	52,0B,04,01,00,AD,01,10
SNAP Key Up	52,0B,04,01,00,AD,00,0F

RECORDING Key Down	52,0B,04,01,00,AC,01,0F
RECORDING Key Up	52,0B,04,01,00,AC,00,0E
PLAYBACK Key Down	52,0B,04,01,00,AE,01,11
PLAYBACK Key Up	52,0B,04,01,00,AE,00,10
BRIGHTNESS Key Down	52,0B,04,01,00,BD,01,20
BRIGHTNESS Key Up	52,0B,04,01,00,BD,00,1F
FREEZE Key Down	52,0B,04,01,00,B3,01,16
FREEZE Key Up	52,0B,04,01,00,B3,00,15
ICON Key Down	52,0B,04,01,00,AF,01,12
ICON Key Up	52,0B,04,01,00,AF,00,11
MENU Key Down	52,0B,04,01,00,AA,01,0D
MENU Key Up	52,0B,04,01,00,AA,00,0C
FLIP Key Down	52,0B,04,01,00,B2,01,15
FLIP Key Up	52,0B,04,01,00,B2,00,14
UP Key Down	52,0B,04,01,00,A6,01,09
UP Key Up	52,0B,04,01,00,A6,00,08
DOWN Key Down	52,0B,04,01,00,A7,01,0A
DOWN Key Up	52,0B,04,01,00,A7,00,09
LEFT Key Down	52,0B,04,01,00,A8,01,0B
LEFT Key Up	52,0B,04,01,00,A8,00,0A
RIGHT Key Down	52,0B,04,01,00,A9,01,0C
RIGHT Key Up	52,0B,04,01,00,A9,00,0B
OK Key Down	52,0B,04,01,00,AB,01,0E
OK Key Up	52,0B,04,01,00,AB,00,0C
ZOOM OUT Key Down	52,0B,04,01,00,A2,01,05
ZOOM OUT Key Up	52,0B,04,01,00,A2,00,04
ZOOM IN Key Down	52,0B,04,01,00,A1,01,04
ZOOM IN Key Up	52,0B,04,01,00,A1,00,03
AUTO FOCUS Key Up	52,0B,04,01,00,A5,01,08
AUTO FOCUS Key Up	52,0B,04,01,00,A5,00,07
MANUAL FOCUS OUT Key Down	52,0B,04,01,00,B9,01,1C
MANUAL FOCUS OUT Key Up	52,0B,04,01,00,B9,00,1B
MANUAL FOCUS IN Key Down	52,0B,04,01,00,BA,01,1D
MANUAL FOCUS IN Key Up	52,0B,04,01,00,BA,00,1C
QUICKZOOM 2X Key Down	52,0B,04,01,00,A3,01,06
QUICKZOOM 2X Key Up	52,0B,04,01,00,A3,00,05
HIGHLIGHT Key Down	52,0B,04,01,00,B6,01,19

HIGHLIGHT Key Up	52,0B,04,01,00,B6,00,18
MASK Key Down	52,0B,04,01,00,B5,01,18
MASK Key Up	52,0B,04,01,00,B5,00,17
MACRO Key Down	52,0B,04,01,00,A4,01,07
MACRO Key Up	52,0B,04,01,00,A4,00,06
SIZE Key Down	52,0B,04,01,00,B7,01,1A
SIZE Key Up	52,0B,04,01,00,B7,00,19
COLOR Key Down	52,0B,04,01,00,B8,01,1B
COLOR Key Up	52,0B,04,01,00,B8,00,1A
VOLUME UP Key Down	52,0B,04,01,00,B0,01,13
VOLUME UP Key Up	52,0B,04,01,00,B0,00,12
PIP Key Down	52,0B,04,01,00,B4,01,17
PIP Key Up	52,0B,04,01,00,B4,00,16
VOLUME DOWN Key Down	52,0B,04,01,00,B1,01,14
VOLUME DOWN Key Up	52,0B,04,01,00,B1,00,13

Setting Function	Code
Effect Graphics	52,0B,04,40,01,01,00,A3
Effect Text	52,0B,04,40,01,01,01,A4
Effect B&W	52,0B,04,40,01,01,02,A5
Effect Negative	52,0B,04,40,01,01,03,A6
Effect Sketch	52,0B,04,40,01,01,04,A7
Image Size 0.8M	52,0B,04,40,01,03,00,A5
Image Size 2M	52,0B,04,40,01,03,01,A6
Image Size 5M	52,0B,04,40,01,03,02,A7
Video Mode HQ	52,0B,04,40,01,04,01,A6
Video Mode HFR	52,0B,04,40,01,04,01,A7

Get Format (Host command to Device)

Offset	Field	Size(Byte)	Value	Description
0	Send Code	1	52	Host command to Device
1	Type Code	1	0A	Host get parameter to Device
2	DataLength code	1	04	The length of the data
3	Data[0]...Data[3]	4	Group, index ,	See the Command Table for reference

			Value	
7	Check Sum Code	1	value	See the Command Table for reference

Get Format (Device return to Host)

Offset	Field	Size(Byte)	Value	Description
0	Receive Code	1	53	Device return to Host
1	Type Code	1	0C	Device return to Host
2	DataLength code	1	04	The length of the data
3	Data[0]...Data[2]	3	Group, index ,	Data[0]~Data[2]:Group, index
6	ReData[3]	1	Value	ReData[3]:Value
7	Check Sum Code	1	value	See the Command Table for reference

RS-232 Get Command Table

Send Format : 52 + 0A + 04 + Data[0] + Data[1] + Data[2] + Data[3] + CheckSum

Receive Format: 53 + 0C + 04 + Data[0] + Data[1] + Data[2] + ReData[3] + ReCheckSum

Function	Send Code	Receive Code	ReData[3]
LED_LAMP	52 0A 04 70 00 12 FF E1	53,0C,04,70,00,12,00,E5	0: Lamp OFF
		53,0C,04,70,00,12,01,E6	1: Lamp level 1
		53,0C,04,70,00,12,02,E7	2: Lamp level 2
		53,0C,04,70,00,12,03,E8	3: Lamp level 3