

RS232 commands Operation guide for 4K60 4x1 HDMI Multiviewer

RS232 cable with straight-through connection

Communication protocol:

Baud rate: 115200

Data bit: 8

Stop bit: 1

Check bit: None

All control instructions are sent in hexadecimal mode

8 Working Modes:

Single-Window: EB 90 00 11 00 ff 32 00 00 01 02 03 00 00 00 00 00

2-Window(LeftRight_Middle): EB 90 00 12 00 ff 32 01 00 01 02 03 00 00 00 00 00

2-Window(Pip_LeftTop): EB 90 00 11 00 ff 32 02 00 01 02 03 00 00 00 00 00

2-Window(Pip_RightBotom): EB 90 00 12 00 ff 32 03 00 01 02 03 00 00 00 00 00

3-Window(Up1Down2): EB 90 00 11 00 ff 32 04 00 01 02 03 00 00 00 00 00

3-Window(Up1Down2_02): EB 90 00 12 00 ff 32 05 00 01 02 03 00 00 00 00 00

3-Window(Pipx2_Down): EB 90 00 12 00 ff 32 06 00 01 02 03 00 00 00 00 00

4-Window(2x2): EB 90 00 12 00 ff 32 07 00 01 02 03 00 00 00 00 00

Window sources switching:

Win1~4 switch to PORT1~4(one on one): EB 90 00 12 00 ff 31 00 01 02 03 00 00 00 00 00 00

Win1~4 switch to PORT1(All windows show same PORT1): EB 90 00 12 00 ff 31 00 00 00 00 00 00 00 00 00

Win1~4 switch to PORT1(All windows show same PORT2): EB 90 00 12 00 ff 31 01 01 01 01 00 00 00 00 00 00

Win1~4 switch to PORT1(All windows show same PORT3): EB 90 00 12 00 ff 31 02 02 02 02 00 00 00 00 00 00

Win1~4 switch to PORT1(All windows show same PORT4): EB 90 00 12 00 ff 31 03 03 03 03 00 00 00 00 00 00

Audio Channel Switching:

Audio channel 1: EB 90 00 12 00 ff 30 00 00 00 00 00 00 00 00 00

Audio channel 2: EB 90 00 12 00 ff 30 01 00 00 00 00 00 00 00 00

Audio channel 3: EB 90 00 12 00 ff 30 02 00 00 00 00 00 00 00 00

Audio channel 4: EB 90 00 12 00 ff 30 03 00 00 00 00 00 00 00 00

Resolutions:

1920x1080@60: EB 90 00 12 00 ff 23 00 00 00 00 00 00 00 00 00

1920x1080@50: EB 90 00 12 00 ff 23 01 00 00 00 00 00 00 00 00

1920x1200@60: EB 90 00 12 00 ff 23 02 00 00 00 00 00 00 00 00

1360x768@60: EB 90 00 12 00 ff 23 03 00 00 00 00 00 00 00 00

1280x720x60: EB 90 00 12 00 ff 23 04 00 00 00 00 00 00 00 00

1024x768x60: EB 90 00 12 00 ff 23 05 00 00 00 00 00 00 00 00

2560X1600x60: EB 90 00 1200 ff 23 06 00 00 00 00 00 00 00 00

2560X1600x50: EB 90 00 12 00 ff 23 07 00 00 00 00 00 00 00 00

3840x2160x60: EB 90 00 12 00 ff 23 08 00 00 00 00 00 00 00 00

3840x2160x50: EB 90 00 12 00 ff 23 09 00 00 00 00 00 00 00 00 00
3840x2160x30: EB 90 00 12 00 ff 23 0A 00 00 00 00 00 00 00 00 00
3840x2160x25: EB 90 00 12 00 ff 23 0B 00 00 00 00 00 00 00 00 00
3840x2160x24: EB 90 00 12 00 ff 23 0C 00 00 00 00 00 00 00 00 00
4096x2160@60: EB 90 00 12 00 ff 23 0D 00 00 00 00 00 00 00 00 00
4096x2160@30: EB 90 00 12 00 ff 23 0E 00 00 00 00 00 00 00 00 00
720x480@60: EB 90 00 12 00 ff 23 0F 00 00 00 00 00 00 00 00 00
720x576@50: EB 90 00 12 00 ff 23 10 00 00 00 00 00 00 00 00 00
2560x1080@60: EB 90 00 12 00 ff 23 11 00 00 00 00 00 00 00 00 00
2560x1440@60: EB 90 00 12 00 ff 23 12 00 00 00 00 00 00 00 00 00
4096X1424@60: EB 90 00 12 00 ff 23 FF 10 00 05 90 3C 00 00 00 00 00

Resolution Customizing:

EB 90 00 12 00 ff 23 FF 00 00 00 00 00 00 00 00 00 00

Red is for the Width, Blue is for the Height, Yellow is for the frame rate

Eg, resolution 1920X1080@60: EB 90 00 12 00 ff 23 FF 07 80 04 38 3C 00 00 00 00 00

Or resolution 2000 X 1000@60: EB 90 00 12 00 ff 23 FF 07 D0 03 E8 3C 00 00 00 00 00

Scenes Recall:

Scene 1: EB 90 00 12 00 ff 2E 00 00 00 00 00 00 00 00 00 00
Scene 2: EB 90 00 12 00 ff 2E 01 00 00 00 00 00 00 00 00 00
Scene 3: EB 90 00 12 00 ff 2E 02 00 00 00 00 00 00 00 00 00
Scene4: EB 90 00 12 00 ff 2E 03 00 00 00 00 00 00 00 00 00
Scene 5: EB 90 00 12 00 ff 2E 04 00 00 00 00 00 00 00 00 00
Scene 6: EB 90 00 12 00 ff 2E 05 00 00 00 00 00 00 00 00 00
Scene 7: EB 90 00 12 00 ff 2E 06 00 00 00 00 00 00 00 00 00
Scene 8: EB 90 00 12 00 ff 2E 07 00 00 00 00 00 00 00 00 00
Scene 9: EB 90 00 12 00 ff 2E 08 00 00 00 00 00 00 00 00 00
Scene 10: EB 90 00 12 00 ff 2E 09 00 00 00 00 00 00 00 00 00

Scenes Save:

Scene 1: EB 90 00 12 00 ff 2F 00 00 00 00 00 00 00 00 00 00
Scene 2: EB 90 00 12 00 ff 2F 01 00 00 00 00 00 00 00 00 00
Scene 3: EB 90 00 12 00 ff 2F 02 00 00 00 00 00 00 00 00 00
Scene 4: EB 90 00 12 00 ff 2F 03 00 00 00 00 00 00 00 00 00
Scene 5: EB 90 00 12 00 ff 2F 04 00 00 00 00 00 00 00 00 00
Scene 6: EB 90 00 12 00 ff 2F 05 00 00 00 00 00 00 00 00 00
Scene 7: EB 90 00 12 00 ff 2F 06 00 00 00 00 00 00 00 00 00
Scene 8: EB 90 00 12 00 ff 2F 07 00 00 00 00 00 00 00 00 00
Scene 9: EB 90 00 12 00 ff 2F 08 00 00 00 00 00 00 00 00 00
Scene 10: EB 90 00 12 00 ff 2F 09 00 00 00 00 00 00 00 00 00

Image/Frame Freeze:

Freeze: EB 90 00 12 00 ff 2A 01 01 01 01 00 00 00 00 00 00

Unfreeze: EB 90 00 12 00 ff 2A 00 00 00 00 00 00 00 00 00 00

Factory Reset:

EB 90 00 12 00 ff 21 00 00 00 00 00 00 00 00 00

Image rotate(only works when Single-window mode)

Normal display

EB 90 00 11 00 ff 27 00 00 01 02 03 00 00 00 00

90 degrees rotate

EB 90 00 11 00 ff 27 00 00 01 02 03 01 00 00 00

270 degrees rotate

EB 90 00 11 00 ff 27 00 00 01 02 03 02 00 00 00

180 degrees rotate with Mirroring

EB 90 00 11 00 ff 27 00 00 01 02 03 03 00 00 00

Mirroring

EB 90 00 11 00 ff 27 00 00 01 02 03 04 00 00 00

180 degrees rotate

EB 90 00 11 00 ff 27 00 00 01 02 03 05 00 00 00

Window size customization(only works when Single-window mode)

Step 1: Switch to Single-window mode

EB 90 00 11 00 ff 32 00 00 01 02 03 00 00 00 00

Step 2: Select the TMDS output clock

Recommend using the 4K60 TMDS

EB 90 00 12 00 ff 23 0D 00 00 00 00 00 00 00 00

Step 3: Sending the customized window size

Example :

Customize window size as 4096x1424, , start from 0,368; The commands will be:

EB 90 00 12 00 ff 29 00 00 00 01 70 10 00 05 90 00 00

[0,368,4096,1424] Hex[0000,0170,1000,0590]

Start at: (0,368), the HEX is 00 00 01 70

End at: (4096,1424), the HEX is 10 00 05 90

Customize window size as 1080x1200, start from 600,900; The commands will be:

EB 90 00 12 00 ff 29 00 02 58 03 84 04 38 04 B0 00 00

(600,900) 02 58 03 84 (1080,1200) 04 38 04 B0

Customize window size as 1920x1200, start from 600,900; The commands will be:

EB 90 00 12 00 ff 29 00 02 58 03 84 07 80 04 B0 00 00

(600,900) 02 58 03 84 (1920,1200) 07 80 04 B0

Customize window size as 2560x1080, start from 0,0; The commands will be:

EB 90 00 12 00 ff 29 00 00 00 00 0A 00 04 38 00 00

(0,0) 00 00 00 00 (2560,1080) 0A 00 04 38