SP-1X8HD150M Tesira Command Sheet

For Tesira Command String blocks · Version 1.0.4

Every command the SP-1X8HD150M takes over the network, as fixed strings for Tesira Command String blocks. The unit is controlled on its own control port (TCP 8001); no other KanexPro software is needed. The same strings, with their bytes, are in `KanexPro-SP-1X8HD150M-Tesira-Command-Sheet-1.0.4.csv` for copying.

> **Before you start —** the Tesira server must reach the SP-1X8HD150M on TCP port 8001. Give the unit a fixed IP address (or a DHCP reservation).

TABLE OF CONTENTS

1. Connection
2. Using the strings
3. Commands
4. Reading the unit back
5. Troubleshooting

1. CONNECTION

HOW THE UNIT IS CONTROLLED	
Transport	TCP, port 8001 (the unit's control port)
Line ending	"!" (hex `21`), after every string
Pacing	One string at a time. The unit answers within about 1.5 s; wait for the answer before the next string.
A refused string	The unit answers with an error line.

2. USING THE STRINGS

1. Point the Command String block at the unit's IP address, TCP port 8001.
2. Add one command per row of section 3: its string, then the line ending (hex `21`).
3. Wire each command to the control that should send it. The Bytes column is the whole string as it goes on the wire, to compare with a network capture.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

3. COMMANDS

48 strings.

#	Command	String	Bytes (hex, with the line ending)
1	**Picture: HDBaseT out 1: Send a picture on**	`s hdbt 1 stream 1`	`73 20 68 64 62 74 20 31 20 73 74 72 65 61 6D 20 31 21`
2	**Picture: HDBaseT out 1: Send a picture off**	`s hdbt 1 stream 0`	`73 20 68 64 62 74 20 31 20 73 74 72 65 61 6D 20 30 21`
3	**Picture: HDBaseT out 2: Send a picture on**	`s hdbt 2 stream 1`	`73 20 68 64 62 74 20 32 20 73 74 72 65 61 6D 20 31 21`
4	**Picture: HDBaseT out 2: Send a picture off**	`s hdbt 2 stream 0`	`73 20 68 64 62 74 20 32 20 73 74 72 65 61 6D 20 30 21`
5	**Picture: HDBaseT out 3: Send a picture on**	`s hdbt 3 stream 1`	`73 20 68 64 62 74 20 33 20 73 74 72 65 61 6D 20 31 21`
6	**Picture: HDBaseT out 3: Send a picture off**	`s hdbt 3 stream 0`	`73 20 68 64 62 74 20 33 20 73 74 72 65 61 6D 20 30 21`

7	Picture: HDBaseT out 4: Send a picture on	`s hdbt 4 stream 1`	`73 20 68 64 62 74 20 34 20 73 74 72 65 61 6D 20 31 21`
8	Picture: HDBaseT out 4: Send a picture off	`s hdbt 4 stream 0`	`73 20 68 64 62 74 20 34 20 73 74 72 65 61 6D 20 30 21`
9	Picture: HDBaseT out 5: Send a picture on	`s hdbt 5 stream 1`	`73 20 68 64 62 74 20 35 20 73 74 72 65 61 6D 20 31 21`
10	Picture: HDBaseT out 5: Send a picture off	`s hdbt 5 stream 0`	`73 20 68 64 62 74 20 35 20 73 74 72 65 61 6D 20 30 21`
11	Picture: HDBaseT out 6: Send a picture on	`s hdbt 6 stream 1`	`73 20 68 64 62 74 20 36 20 73 74 72 65 61 6D 20 31 21`
12	Picture: HDBaseT out 6: Send a picture off	`s hdbt 6 stream 0`	`73 20 68 64 62 74 20 36 20 73 74 72 65 61 6D 20 30 21`
13	Picture: HDBaseT out 7: Send a picture on	`s hdbt 7 stream 1`	`73 20 68 64 62 74 20 37 20 73 74 72 65 61 6D 20 31 21`
14	Picture: HDBaseT out 7: Send a picture off	`s hdbt 7 stream 0`	`73 20 68 64 62 74 20 37 20 73 74 72 65 61 6D 20 30 21`
15	Picture: HDBaseT out 8: Send a picture on	`s hdbt 8 stream 1`	`73 20 68 64 62 74 20 38 20 73 74 72 65 61 6D 20 31 21`
16	Picture: HDBaseT out 8: Send a picture off	`s hdbt 8 stream 0`	`73 20 68 64 62 74 20 38 20 73 74 72 65 61 6D 20 30 21`
17	Picture: HDMI loop out picture on	`s hdmi stream 1`	`73 20 68 64 6D 69 20 73 74 72 65 61 6D 20 31 21`
18	Picture: HDMI loop out picture off	`s hdmi stream 0`	`73 20 68 64 6D 69 20 73 74 72 65 61 6D 20 30 21`
19	Picture: HDBaseT out 1: Scale down on	`s hdbt 1 downscale mode 1`	`73 20 68 64 62 74 20 31 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
20	Picture: HDBaseT out 1: Scale down off	`s hdbt 1 downscale mode 0`	`73 20 68 64 62 74 20 31 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
21	Picture: HDBaseT out 2: Scale down on	`s hdbt 2 downscale mode 1`	`73 20 68 64 62 74 20 32 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
22	Picture: HDBaseT out 2: Scale down off	`s hdbt 2 downscale mode 0`	`73 20 68 64 62 74 20 32 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
23	Picture: HDBaseT out 3: Scale down on	`s hdbt 3 downscale mode 1`	`73 20 68 64 62 74 20 33 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
24	Picture: HDBaseT out 3: Scale down off	`s hdbt 3 downscale mode 0`	`73 20 68 64 62 74 20 33 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
25	Picture: HDBaseT out 4: Scale down on	`s hdbt 4 downscale mode 1`	`73 20 68 64 62 74 20 34 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
26	Picture: HDBaseT out 4: Scale down off	`s hdbt 4 downscale mode 0`	`73 20 68 64 62 74 20 34 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
27	Picture: HDBaseT out 5: Scale down on	`s hdbt 5 downscale mode 1`	`73 20 68 64 62 74 20 35 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
28	Picture: HDBaseT out 5: Scale down off	`s hdbt 5 downscale mode 0`	`73 20 68 64 62 74 20 35 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
29	Picture: HDBaseT out 6: Scale down on	`s hdbt 6 downscale mode 1`	`73 20 68 64 62 74 20 36 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
30	Picture: HDBaseT out 6: Scale down off	`s hdbt 6 downscale mode 0`	`73 20 68 64 62 74 20 36 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`

31	Picture: HDBaseT out 7: Scale down on	`s hdbt 7 downscale mode 1`	`73 20 68 64 62 74 20 37 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
32	Picture: HDBaseT out 7: Scale down off	`s hdbt 7 downscale mode 0`	`73 20 68 64 62 74 20 37 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
33	Picture: HDBaseT out 8: Scale down on	`s hdbt 8 downscale mode 1`	`73 20 68 64 62 74 20 38 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
34	Picture: HDBaseT out 8: Scale down off	`s hdbt 8 downscale mode 0`	`73 20 68 64 62 74 20 38 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
35	Picture: Scale down the HDMI loop out on	`s loopout downscale mode 1`	`73 20 6C 6F 6F 70 6F 75 74 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 31 21`
36	Picture: Scale down the HDMI loop out off	`s loopout downscale mode 0`	`73 20 6C 6F 6F 70 6F 75 74 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 20 30 21`
37	RS-232: RS-232 port goes to = Every receiver	`s rs232 bypass hdbt 0`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 30 21`
38	RS-232: RS-232 port goes to = Receiver 1	`s rs232 bypass hdbt 1`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 31 21`
39	RS-232: RS-232 port goes to = Receiver 2	`s rs232 bypass hdbt 2`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 32 21`
40	RS-232: RS-232 port goes to = Receiver 3	`s rs232 bypass hdbt 3`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 33 21`
41	RS-232: RS-232 port goes to = Receiver 4	`s rs232 bypass hdbt 4`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 34 21`
42	RS-232: RS-232 port goes to = Receiver 5	`s rs232 bypass hdbt 5`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 35 21`
43	RS-232: RS-232 port goes to = Receiver 6	`s rs232 bypass hdbt 6`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 36 21`
44	RS-232: RS-232 port goes to = Receiver 7	`s rs232 bypass hdbt 7`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 37 21`
45	RS-232: RS-232 port goes to = Receiver 8	`s rs232 bypass hdbt 8`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 38 21`
46	RS-232: RS-232 port goes to = No receiver	`s rs232 bypass hdbt 9`	`73 20 72 73 32 33 32 20 62 79 70 61 73 73 20 68 64 62 74 20 39 21`
47	Power: Power On	`s power 1`	`73 20 70 6F 77 65 72 20 31 21`
48	Power: Power Standby	`s power 0`	`73 20 70 6F 77 65 72 20 30 21`

4. READING THE UNIT BACK

Send these to read the unit back (on a timer, or after a change).

#	String	Bytes (hex)	The reply gives
1	`r power`	`72 20 70 6F 77 65 72 21`	Power
2	`r link in`	`72 20 6C 69 6E 6B 20 69 6E 21`	Source connected
3	`r hdbt 1 stream`	`72 20 68 64 62 74 20 31 20 73 74 72 65 61 6D 21`	Send a picture
4	`r hdbt 2 stream`	`72 20 68 64 62 74 20 32 20 73 74 72 65 61 6D 21`	Send a picture

5	`r hdbt 3 stream`	`72 20 68 64 62 74 20 33 20 73 74 72 65 61 6D 21`	Send a picture
6	`r hdbt 4 stream`	`72 20 68 64 62 74 20 34 20 73 74 72 65 61 6D 21`	Send a picture
7	`r hdbt 5 stream`	`72 20 68 64 62 74 20 35 20 73 74 72 65 61 6D 21`	Send a picture
8	`r hdbt 6 stream`	`72 20 68 64 62 74 20 36 20 73 74 72 65 61 6D 21`	Send a picture
9	`r hdbt 7 stream`	`72 20 68 64 62 74 20 37 20 73 74 72 65 61 6D 21`	Send a picture
10	`r hdbt 8 stream`	`72 20 68 64 62 74 20 38 20 73 74 72 65 61 6D 21`	Send a picture
11	`r hdmi stream`	`72 20 68 64 6D 69 20 73 74 72 65 61 6D 21`	HDMI loop out picture
12	`r hdbt 1 downscale mode`	`72 20 68 64 62 74 20 31 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
13	`r hdbt 2 downscale mode`	`72 20 68 64 62 74 20 32 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
14	`r hdbt 3 downscale mode`	`72 20 68 64 62 74 20 33 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
15	`r hdbt 4 downscale mode`	`72 20 68 64 62 74 20 34 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
16	`r hdbt 5 downscale mode`	`72 20 68 64 62 74 20 35 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
17	`r hdbt 6 downscale mode`	`72 20 68 64 62 74 20 36 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
18	`r hdbt 7 downscale mode`	`72 20 68 64 62 74 20 37 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down
19	`r hdbt 8 downscale mode`	`72 20 68 64 62 74 20 38 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down

20	`r loopout downscale mode`	`72 20 6C 6F 6F 70 6F 75 74 20 64 6F 77 6E 73 63 61 6C 65 20 6D 6F 64 65 21`	Scale down the HDMI loop out
21	`r fw version`	`72 20 66 77 20 76 65 72 73 69 6F 6E 21`	Firmware

5. TROUBLESHOOTING

Nothing happens.
Check the unit's IP address and that TCP 8001 is open between the Tesira server and the unit (same network or VLAN, or routed; no firewall in between). Check the line ending is sent after each string.

The unit answers with an error.
The string or its value is not one it takes, or the unit is in standby: turn it on first.