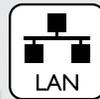




Control Your Video

**VIDEO WALLS VIDEO PROCESSORS
VIDEO MATRIX SWITCHES
EXTENDERS SPLITTERS WIRELESS
CABLES & ACCESSORIES**

Control Commands



Model #: MSW-HBT-C6POE-16X16E

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SECTION I: COMMAND PROTOCOL FORMAT (RS-232 SERIAL PORT)

I. SERIAL PORT SETTING

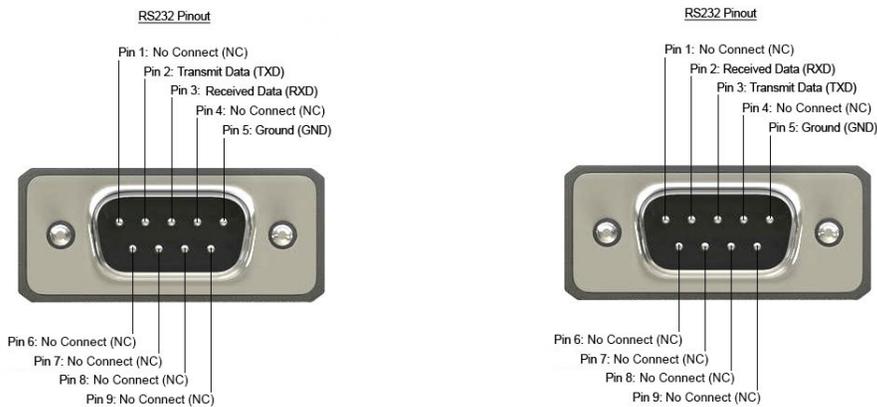
- Baud Rate: 19200 bps
- Data Bit: 8 bits
- Parity: None
- Flow Control: None
- Stop Bit: 1

RS-232 Wiring (Straight Connection)

MSW-HBT-C6POE-16X16E	
PIN	Assignment
1	NC
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

→
←

Remote Controller(PC)	
PIN	De finition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC



Modular Matrix Chassis CPU SECTION

- a. RS-232: Connect with D-Sub 9-pin cable from PC/Laptop device to RS-232 for control over the Matrix or the connected RS232 device(s) at the Rx.
- b. CONTROL: Connect to an active network line for LAN serving and Telnet/Web GUI control.
- c. IR OUT/IN: Reserved.
- d. SERVICE: This port is reserved for firmware update only.
- e. OUTPUT 0: Connect to DVI/HDMI (with DVI to HDMI adaptor) monitor/TV for local output monitoring.



All commands will be not executed unless followed with a carriage return (0x0D) and commands are case sensitive

Command	Description
P1	Power on.
P0	Power off.
Oxly	Output (x:0~16) set to input (y:1~16).
ALLOUT x	All output set to input (x:01~16).
ACTIVE	Report I/O active channels.
INDETECT	Input channels detect indicator.
OUTDETECT	Output channels detect indicator.
PORTSTATUS	Report all output connection status.
HDCPON x	Setting input port(x:01~16) HDCP on.
HDCPOFF x	Setting input port (x:01~16) HDCP off.
HDCPONALL	Setting all input port HDCP on.
HDCPOFFALL	Setting all Input port HDCP off.
HDCPSTATUS	Show HDCP status of all output(0=HDCP disable,1=enable).
MUTEO x	Video mute command at output (x:0~16) interface.
UNMUTEO x	Video unmute command at output (x:0~16) interface.
MUTEI x	Video mute command at input (x:0~16)interface.
UNMUTEI x	Video unmute command at output (x:0~16) interface.
UNMUTEI x	Video unmute command at input (x:0~16) interface.
MUTEALL	Mute all outputs.
UNMUTEALL	Unmute all outputs.
MUTESTATUS	Show mute status of all output(0=not muted,1=muted).

1.2 TELNET SETTING:

HPDL x	Pull the input(x:01~16) Hot-Plug-Detect signal to 'LOW'.
HPDH x	Pull the input(x:01~16) Hot-Plug-Detect signal to 'HIGH'.
HPDLALL	Set all input HPD to Low.
HPDHALL	Set all input HPD to High.
HPDSTATUS	Report all input Hot-Plug-Detect signal status.
EDIDMODE x y	Set EDID mode(y:1~2) to Input(x:01~16).
EDIDMODEALL x	The EDID mode(x:1~2) of All Input.
EDIDPORT x y	Set EDID Assigned Port(y:01~16) to Input(x:01~16).
EDIDPORTALL x	The EDID of All Inports is assigned to Output (x:01-16).
EDIDSTATUS	Report all input EDID mode&port.
UART x "str"	Write UART string to output port(x:01~16).
UARTBAUD x y	Setting output port(x:01~16) UART baud rate(y).
STATUSUART	Show output port UART baud rate.
TEMPSTATUS	Show temperature sensor values y1, y2.
SETIPADDR	Setting IP address<x.x.x.x>.
SETSNMASK	Setting subnet mask<x.x.x.x>.
SETGWADDR	Setting gateway IP address<x.x.x.x>.
IPCONFIG	Display the current IP config.
RSTIP	IP Configuration Was Reset To Factory Defaults(DHCP).
BUZZER x	Buzzer Mute(0),UnMute(1).
REBOOT	System reboot.
SAVE TO x	Save as Preset x(1~10).
RECALL TO x	Recall Preset x(1~10).
RESET	System Reset to O111,O212,O313,O414,O515....
VERSION	Display controller firmware version.



1.2 TELNET SETTING:

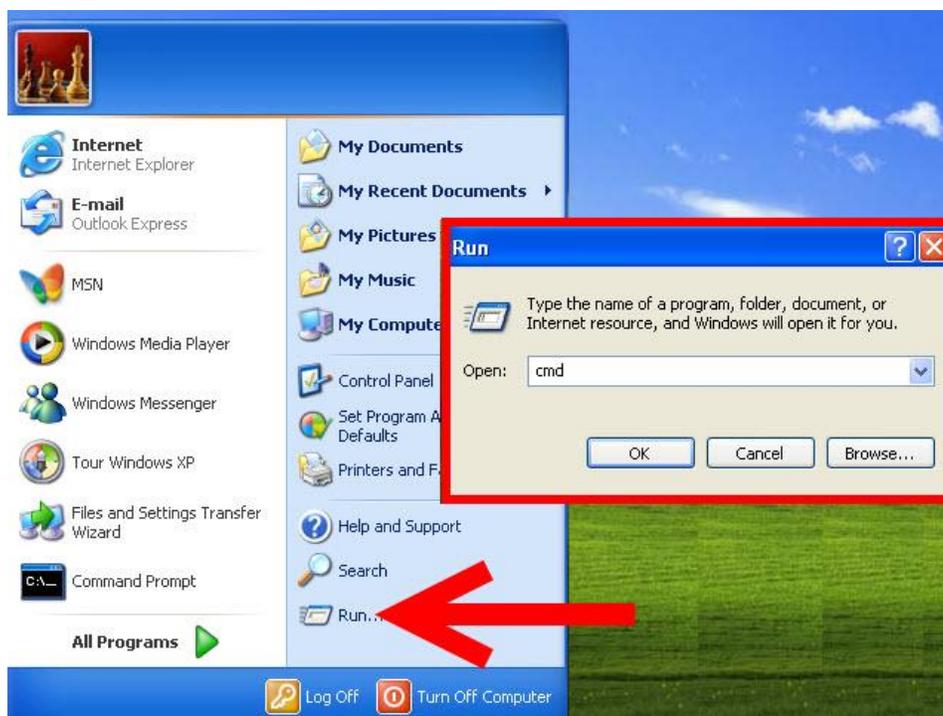
Using TCP/IP protocol, sent to Port 23 for Telnet communication.

The user can confirm from the OSD menu or through RS-232 command to check Telnet connection behavior.

To use the telnet control, please ensure that both the Matrix (via the 'LAN /CONTROL' port) and the PC/Laptop are connected to the active networks not directly connected.

To access the telnet control in Windows 7, click on the 'Start' menu and type "cmd" in the Search field then press enter. Under Windows XP go to the 'Start' menu and click on "Run", type "cmd" with then press enter.

Under Mac OS X, go to Go→Applications→Utilities→Terminal See below for reference.



1.2 TELNET SETTING:

In the CMD window proceed to type "telnet", then the IP address of the unit and "23", then hit enter/return.

Note: The IP address of the Matrix can be displayed on the device's LCM monitor by pressing the Menu button twice.

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Sales2> telnet 192.168.5.80 23
```

After connecting to the Matrix Switcher via IP address. Type "HELP" to preview the list of commands available.

```
Telnet 192.168.5.139

Welcome to Avenview Matrix Telnet

telnet-> help

      P0 : Power Off
      P1 : Power On
      RESET : System Reset to 01I1,02I2,03I3,04I4,05I5...
      0xxIxx(x:01~8) : Output 0~8 set to Input 1~8
      ALLOUT xx(x:01~8) : All Output set to Input 1~8
      MUTE xx(x:0~8) : Video mute command at output interface
      UNMUTE xx(x:0~8) : Video unmute command at output interface
      MUTEALL : Mute all outputs
      UNMUTEALL : Unmute all outputs
      SHOWMUTE : Show mute status of all output(0=not muted,1=muted)
      RDMUTE xx(x:0~8) : Read MUTE Status at Output
      HPDLOW xx(x:01~8) : Pull the Hot-Plug-Detect signal to 'LOW'
      HPDHIGH xx(x:01~8) : Pull the Hot-Plug-Detect signal to 'HIGH'
      HPDLOW ALL : Set All Input HPD to Low
      HPDHIGH ALL : Set All Input HPD to High
      SHOWHPD : Report ALL Input Hot-Plug-Detect signal status
      STATUSHPD x(x:1~8) : Show HPD status of input(x)
      SHOWTEMP : Show temperature sensor values y1, y2
      STATUSIN xx(x:01~8) : Report Input connection status
      STATUSOUT xx(x:0~8) : Report Output connection status
      STATUSALL : Report ALL Output connection status
      STATUSEDID : Report ALL Input EDID mode&port
      SETEDIDMODE ii nn(ii:01~8 nn:1~3) : Set EDID mode(nn) to Input(ii)
      SETEDIDMODE ALL nn (nn=1~3) : The EDID mode(nn) of All Input(ii)
      SETEDIDPORT ii pp(ii:01~8 pp:01~8) : Set EDID Assigned Port(pp) to Input(ii)
      SETEDIDPORT ALL nn (pp=01~8) : The EDID of All Inports is assigned to Output
      pp
      ACTIVE : Report I/O active channels
      INDETECT : Input channels detect indicator
      OUTDETECT : Output channels detect indicator
      IPCONFIG : Display the current IP config
      SETIP <IP> <SubNet> <GW> : Setting IP.SbuNet.GateWay(Static IP)
      RSTIP : IP Configuration Was Reset To Factory Defaults(DHCP)
      SETIPADDR <IP> : Setting IP address
      SETSNMASK <SubNet> : Setting subnet mask
      SETGWADDR <GW> : Setting gateway IP address

      R
```

Type "IPCONFIG" To confirm all IP configurations.

To **RESET** the IP ADDRESS; type "RSTIP" /To **SET** a STATIC IP, type"SETIP"
(For a full list of commands, see Section 1.3).

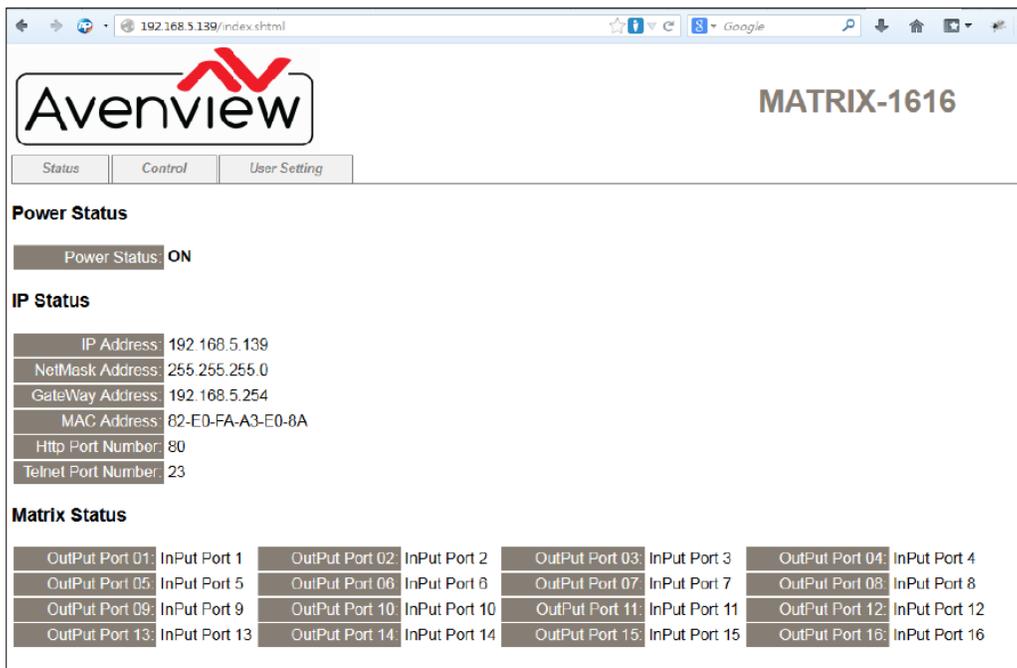
Note: Commands will not be executed unless followed by a carriage return. Commands are case-insensitive. If the IP is changed then the IP Address required for Telnet access will also change accordingly.



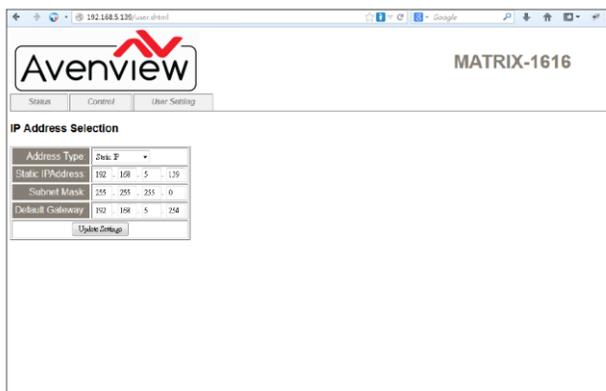
I.4 WEB GUI Control:

All commands will be not executed unless followed with a carriage return (0x0D) and commands are case sensitive

With a PC/Laptop connected to the same active LAN network as the Matrix switcher, click on a web browser and type device's IP address on the web address entry bar. The browser will display the device's status, control and User setting pages.



The 'User Setting' TAB allows the user to reset the IP configuration. The system will require a reboot to the device once any of the settings are changed within this TAB. The IP address needed to access the Web GUI control will also need to be changed accordingly on the web address entry bar.



1.2 TELNET SETTING:

Click on the 'Control' TAB to toggle power ON/OFF, Input/Output ports, EDID and reset mode.

192.168.5.139/control.shtml

Avenview **MATRIX-1616**

Status Control User Setting

Power Control

PowerON PowerOFF

Matrix Control

OutPut Port 1:	Input Port 1	OutPut Port 2:	Input Port 2	OutPut Port 3:	Input Port 3	OutPut Port 4:	Input Port 4
OutPut Port 5:	Input Port 5	OutPut Port 6:	Input Port 6	OutPut Port 7:	Input Port 7	OutPut Port 8:	Input Port 8
OutPut Port 9:	Input Port 9	OutPut Port 10:	Input Port 10	OutPut Port 11:	Input Port 11	OutPut Port 12:	Input Port 12
OutPut Port 13:	Input Port 13	OutPut Port 14:	Input Port 14	OutPut Port 15:	Input Port 15	OutPut Port 16:	Input Port 16

All OutPut Set To Select Input Port

System Reset

Reset





AV Connectivity, Distribution And Beyond...

TECHNICAL SUPPORT

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