**4K/UHD**

# 8x4 HDBaseT™ and HDMI
## Matrix Switcher

Application Programming Interface
0.1.40

# Version Information

| Version | Release Date | Notes |
|---------|--------------|-------|
| 1 | 09/18 | Initial release |

# Commands

The following tables provide an alphabetical list of commands available on the AT-UHD-CLSO-840. All commands are case-sensitive and must be entered as documented. If the command fails or is entered incorrectly, then the feedback is "Command FAILED".

⚠️ **IMPORTANT:** Each command is terminated with a carriage-return (0x0d) and the feedback is terminated with a carriage-return and line-feed (0x0a).

| Command | Description |
|---------|-------------|
| All# | Resets the matrix to a one-to-one routing state |
| AudioSrc | Sets the audio output channel for analog or digital audio |
| Blink | Enables or disables blinking of the **POWER** button on the front panel |
| Broadcast | Enables or disables broadcast mode |
| Clear | Erases the specified preset |
| CSpara | Sets the baud rate, data bits, parity bit, and stop bits for the serial port |
| EDIDMSet | Assigns the specified EDID to the desired input |
| EDIDOut | Saves the downstream EDID to the specified memory location |
| HDCPSet | Sets the HDCP reporting mode for the specified input |
| help | Displays the available list of commands |
| HTTPPort | Sets the HTTP listening port |
| InputBroadcast | Enables or disables broadcast mode |
| InputStatus | Displays the status for each input |
| IPAddUser | Adds a user for Telnet control |
| IPCFG | Displays the current network settings for the AT-UHD-CLSO-840 |
| IPChangePass | Changes the password for the web GUI and Telnet sessions |
| IPDelUser | Deletes the specified Telnet user |
| IPDHCP | Enables or disables DHCP mode on the AT-UHD-CLSO-840 |
| IPLogin | Enables or disables login credentials when starting a Telnet session |
| IPPort | Sets the Telnet listening port for the AT-UHD-CLSO-840 |
| IPQuit | Terminates the current TCP/IP session |
| IPStatic | Sets the static IP address, subnet mask, and gateway for the AT-UHD-CLSO-840 |
| IPTimeout | Specifies the time interval of inactivity before the Telnet session is closed |
| Lock | Locks the buttons on the front panel |
| LockST | Displays the lock status of the AT-UHD-CLSO-840 |
| MirrorAudio | Enables / disables mirroing for the specified audio and video outputs |
| Mreset | Resets the AT-UHD-CLSO-840 to factory-default settings |
| PWOFF | Places the AT-UHD-CLSO-840 in standby mode |
| PWON | Powers-on the matrix |
| PWSTA | Displays the current power state |

| Command | Description |
| --- | --- |
| Recall | Recalls the specified routing preset |
| RS232para | Sets the baud rate, data bits, stop bits, and parity for the **RS-232** port |
| RS232zone | Send a command to the RS-232 device connected to the **RS-232** port on the receiver |
| Save | Saves the current routing state to the specified preset |
| Status | Displays which inputs are connected to which outputs |
| TrigCEC | Triggers the stored CEC command |
| Type | Displays the model of the transmitter |
| Unlock | Unlocks the buttons on the front panel |
| Version | Displays the current firmware version of the AT-UHD-CLSO-840 |
| VIN | Specifies the volume input level |
| VOUT | Specifies the volume input level |
| VOUTMute | Mutes the audio on the specified channel (zone) |
| x?$ | Enables / disables the specified output channel |
| x?All | Routes the specified input to all outputs |
| x?AVx? | Routes an input to the specified output(s) |
| x?Ax? | Routes the audio from a video input to the specified audio output |

## All#

Resets the matrix to the factory-default one-to-one routing state.  This command only resets the input/output routing: Input 1 > Output 1, Input 2 > Output 2, etc.  No other settings are affected.

| Syntax |
| --- |
| All# |

**This command does not require any parameters**

**Example**
All#

**Feedback**
All#

## AudioSrc

Specifies the audio type to be output on the output channel (HDMI 1, HDMI 2, HDBaseT 3, HDBaseT 4).

| Syntax |
| --- |
| AudioSrcX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Output Channel | 1 ... 4 |
| Y | Audio Type | ana, dig |

**Example**
AudioSrc2 ana

**Feedback**
AudioSrc2 ana

## Blink

Enables or disables blinking of the **POWER** button on the front panel.  When set to on, the **POWER** button will flash, alternating between red and blue, and can be used to physically identify the unit on a network.  The **POWER** button will flash until the Blink off command is executed.  on = enables blinking; off = disables blinking; sta = displays the current setting.  The default setting is off.

| Syntax |
| --- |
| Blink X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
Blink on

**Feedback**
Blink on

## Broadcast

Enables or disables broadcast mode.  By default, broadcast mode is set to off.  When set to on, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP.  To separate control between web GUI and Telnet, set this feature off.  on = enables broadcast mode; off = disables broadcast mode; sta = displays the current setting.

| Syntax |
| --- |
| Broadcast X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
Broadcast on

**Feedback**
Broadcast on

## Clear

Erases the specified preset.

| Syntax |
| --- |
| ClearX |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Preset | 1 ... 5 |

**Example**
Clear2

**Feedback**
Clear2

## CSpara

Sets the baud rate, data bits, parity bit, and stop bits for the serial port.  Use the sta argument to display the current serial port settings.  Each argument must be separated by a comma; no spaces are permitted.  Brackets must be used when executing this command.

| Syntax |
| --- |
| CSpara[W,X,Y,Z] |

| Parameter | Description | Range |
| --- | --- | --- |
| W | Baud rate | 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| X | Data bits | 7, 8 |
| Y | Parity bit | None, Odd, Even |
| Z | Stop bits | 1, 2 |

**Example**
CSpara[115200,8,0,1]
CSpara[sta]

**Feedback**
CSpara[115200,8,0,1]
CSpara [115200,8,0,1]

## EDIDMSet

Assigns an EDID to the specified input.  The EDID can be one of the internal pre-programmed EDID selections or a custom EDID that can be stored in one of the four memory locations.  A brief description of each pre-programmed EDID is listed in the table below.  For a detailed summary of each EDID, refer to the Appendix in the User Manual table.  Use arguments save1 through save4 to store the EDID in any of four memory locations.  To display the EDID assigned to an input, use the sta argument.  Do not use a space between the command and the first parameter.

For the first parameter, inputs are represented as follows:

1 = HDMI IN 1
2 = HDMI IN 2
3 = VGA IN

4 = DP IN 4
5 = HDMI IN 5 (receiver)

| Syntax |
| --- |
| EDIDMSetX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Input | 1 ... 5 |
| Y | EDID | default,<br>save1 ... save4,<br>int1 ... int23,<br>sta |

**Example**
EDIDMSet3 int6
EDIDMSet3 sta

**Feedback**
EDIDMSet3 int6
EDIDMSet3 int6

## EDIDOut

Save the EDID of the display (sink), connected to the receiver, to internal memory.  The first parameter must be 1.

| Syntax |
| --- |
| EDIDOutX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Output | 1 (required) |
| Y | Memory location | save1 ... save4 |

**Example**
EDIDOut1 save2

**Feedback**
EDIDOut1 save2

## HDCPSet

Set the HDCP reporting mode of the specified port.  Some computers will send HDCP content if an HDCP-compliant display is detected.  on = reports to the source device that the display (sink) is HDCP-compliant, off = reports to the source device that the display (sink) is not HDCP-compliant (HDCP content will not be sent), auto = uses the attributes of the display device to accept or not accept HDCP content.  Setting this value to off *does not* decrypt HDCP content.  Use the sta argument to display the current setting.

| Syntax |
| --- |
| HDCPSet X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, auto, sta |

**Example**
HDCPSet 1 on

**Feedback**
HDCPSet 1 on

## help

Displays the list of available commands.  To obtain help on a specific command, enter the **help** command followed by the name of the command.

| Syntax |
| --- |
| help [X] |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Command name (optional) | Command |

**Example**
help

**Feedback**
Available cmds:

help
PWON
PWOFF
PWSTA
...
...

## HTTPPort

Sets the HTTP listening port for the AT-UHD-CLSO-840.

| Syntax |
| --- |
| HTTPPort X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Port | 0 ... 65535 |

**Example**
HTTPPort 8080

**Feedback**
HTTPPort 8080

## InputBroadcast

Enables or disables broadcast mode. The default setting is off.

| Syntax |
| --- |
| InputBroadcast X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | State | on, off, sta |

**Example**
InputBroadcast on

**Feedback**
InputBroadcast on

## InputStatus

Displays the status of each input as a set of five consecutive numbers between 0 and 1. Each number represent an input, from 1 to 5: **HDMI IN 1**, **HDMI IN 2**, **VGA IN**, **DP IN 4**, and **HDMI IN 5**, respectively. If a source is detected on the input, then a 1 will be displayed. Inputs with no source connected will display a 0.

| Syntax |
| --- |
| InputStatus |

**This command does not require any parameters**

**Example**
InputStatus

**Feedback**
InputStatus 10010

## IPAddUser

Adds a user for web GUI login and Telnet sessions. This command performs the same function as adding a user within the web GUI. Refer to User Manual for more information.

| Syntax |
| --- |
| IPAddUser X Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | User name | 20 characters (max) |
| Y | Password | 20 characters (max) |

**Example**
IPAddUser BigBoss b055man

**Feedback**
IPAddUser BigBoss b055man
TCP/IP user was added

## IPCFG

Displays the current network settings for the AT-UHD-CLSO-840.

| Syntax |
| --- |
| IPCFG |

**This command does not require any parameters**

**Example**
IPCFG

**Feedback**
MAC addr: B8:98:B0:03:1D:7C
IP addr: 10.0.1.182
Netmask: 255.255.255.0
Gateway: 10.0.1.1
Web Port: 80
Telnet Port: 23

Send with TCP/IP 1:
  IP Addres: 192.168.1.10
  TCP Port: 23
  Listen UDP Port: 8
  Send with: TCP

Send with TCP/IP 2:
  IP Addres: 192.168.1.11
  TCP Port: 23
  Listen UDP Port: 18
  Send with: TCP

## IPChangePass

Changes the password for the specified user.

| Syntax |
| --- |
| IPChangePass X |

| Parameter | Description | Range |
| --- | --- | --- |
| W | Username | -- |
| X | Old password | -- |
| Y | New password | -- |
| Z | Password confirmation | -- |

**Example**
IPChangePass root Atlona BoS5man

**Feedback**
IPChangePass root Atlona BoS5man

## IPDelUser

Deletes the specified user.  Deleted users will no longer be able to access the web GUI or initiate Telnet sessions.  This command performs the same function as removing a user within the web GUI.  Refer to the User Manual for more information.

| Syntax |
| --- |
| IPDelUser X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | User | User name |

**Example**
IPDelUser Minion2

**Feedback**
IPDelUser Minion2
TCP/IP user was deleted

## IPDHCP

Enables or disables DHCP mode on the AT-UHD-CLSO-840.  on = DHCP mode ON; off = DHCP mode OFF; sta = displays the current setting.  If this feature is disabled, then a static IP address must be specified.  The default setting is DHCP = ON.

| Syntax |
| --- |
| IPDHCP X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
IPDHCP on

**Feedback**
IPDHCP on

## IPLogin

Enables or disables the use of login credentials when initiating a Telnet session on the AT-UHD-CLSO-840.  If this feature is set to on, then the AT-UHD-CLSO-840 will prompt for both the username and password.  Use the same credentials as the web GUI.  on = login credentials required; off = no login required.  Use the sta argument to display the current setting.  The default setting is on.

| Syntax |
| --- |
| IPLogin X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
IPLogin off

**Feedback**
IPLogin off

## IPPort

Sets the TCP/IP listening port for the AT-UHD-CLSO-840.

| Syntax |
| --- |
| IPPort X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Port | 0 ... 65535, sta |

**Example**
IPPort 230

**Feedback**
IPPort 230

## IPQuit

Closes the current Telnet session.

| Syntax |
| --- |
| IPQuit |

**This command does not require any parameters**

**Example**
IPQuit

**Feedback**
Connection lost...

## IPStatic

Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDVS-210U-TX-WP.  Before using this command, DHCP must be disabled on the AT-HDVS-210U-TX-WP.  Refer to the IPDHCP command for more information.  Each argument must be entered in dot-decimal notation and separated by a space.  The default static IP address of the AT-UHD-CLSO-840 is 192.168.1.254.

| Syntax |
| --- |
| IPStatic X Y Z |

| Parameter | Description | Range |
| --- | --- | --- |
| X | IP address | 0 ... 255 (per byte) |
| Y | Subnet mask | 0 ... 255 (per byte) |
| Z | Gateway (router) | 0 ... 255 (per byte) |

**Example**
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

**Feedback**
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

## IPTimeout

Specifies the time interval of inactivity before the TCP/IP session is terminated.  When terminated, both the Telnet and web GUI session will be closed.  The default setting is 300 seconds.

| Syntax |
| --- |
| IPTimeout X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Interval (in seconds) | 1 ... 60000 |

**Example**
IPTimeout 300

**Feedback**
IPTimeout 300

## Lock

Locks the buttons on the front panel.  This feature is useful when the unit is installed in a rack environment or other remote location, to prevent unauthorized tampering or accidental pressing of the front-panel buttons.  Also refer to the Unlock command.

| Syntax |
| --- |
| Lock |

**This command does not require any parameters**

**Example**
Lock

**Feedback**
Lock

## LockST

Displays the current lock status.

| Syntax |
| --- |
| LockST |

**This command does not require any parameters**

**Example**
LockST

**Feedback**
Unlock

## MirrorAudio

Enables or disables mirroring for the specified audio and video outputs. Refer to the User Manual for more information on mirroring. Specify 0 for the second parameter to disabling mirroring.

| Syntax |
| --- |
| MirrorAudioX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Audio Output | 1 ... 4 |
| Y | Video Output | 0, Out 1 ... Out 4 |

**Example**
MirrorAudio2 Out3

**Feedback**
MirrorAudio2 Out3

## Mreset

Resets the AT-UHD-CLSO-840 to factory-default settings.

| Syntax |
| --- |
| MReset |

**This command does not require any parameters**

**Example**
Mreset

**Feedback**
Mreset

## PWOFF

Executing this command will power-off the AT-JUNO-451. Use the PWON command to power-on the unit.

| Syntax |
| --- |
| PWOFF |

**This command does not require any parameters**

**Example**
PWOFF

**Feedback**
PWOFF

## PWON

Executing this command will power-on the AT-JUNO-451.  Use the PWOFF command to power-off the unit.

| Syntax |
| --- |
| PWON |

**This command does not require any parameters**

**Example**
PWON

**Feedback**
PWON

## PWSTA

Displays the current power state of the AT-JUNO-451.

| Syntax |
| --- |
| PWSTA |

**This command does not require any parameters**

**Example**
PWSTA

**Feedback**
PWON

## Recall

Loads the specified routing preset.

| Syntax |
| --- |
| Recall |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Preset | 1 ... 5 |

**Example**
Recall2

**Feedback**
Recall2

## RS232para

Sets the baud rate, data bits, parity bit, and stop bits for the **RS-232** port on the AT-UHD-CLSO-840.  Each argument must be separated by a comma; no spaces are permitted.  Brackets must be included when typing this command.

| Syntax |
| --- |
| RS232paraV[W,X,Y,Z] |

| Parameter | Description | Range |
| --- | --- | --- |
| V | Zone | 1 ... 5 |
| W | Baud rate | 2400, 9600, 19200, 38400, 56000, 57600, 115200 |
| X | Data bits | 8, 9 |
| Y | Parity bit | 0 (None), 1 (Odd), 2 (Even) |
| Z | Stop bits | 1, 2 |

**Example**
RS232para1[115200,8,0,1]

**Feedback**
RS232para1[115200,8,0,1]

## RS232zone

Sends commands to the connected display.  Refer to the User Manual of the display device for a list of available commands.  Brackets must be used when specifying the command argument.  The command line must not contain any spaces.

| Syntax |
| --- |
| RS232zone[X][Y] |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Output port (zone) | 1, 2 |
| Y | Command | String |

**Example**
RS232zone1[command]

**Feedback**
RS232zone1[command]

## Save

Saves the current routing state to the specified preset.

| Syntax |
|--------|
| Save |

| Parameter | Description | Range |
|-----------|-------------|-------|
| X | Preset | 1 ... 5 |

**Example**
Save2

**Feedback**
Save2

## Status

Displays the current routing status for each A/V and audio port.

| Syntax |
|--------|
| Status |

**This command does not require any parameters**

**Example**
Status

**Feedback**
x1AVx1,x2AVx2,x3AVx3,x4AVx4,x1Ax1,x3Ax2,x3Ax3,x4Ax4

## TrigCEC

Sends the specified command to the display using CEC.  The output must always be specified and set to the value of 1.  Do not add a space between the command and the first argument.

| Syntax |
|--------|
| TrigCECX Y |

| Parameter | Description | Range |
|-----------|-------------|-------|
| X | Zone | 1 |
| Y | Power state | on, off |

**Example**
TrigCEC1 on

**Feedback**
TrigCEC1 on

## Type

Displays the model information of the AT-UHD-CLSO-840. The full argument may be specified to display the host name and firmware version. This argument is optional.

| Syntax |
| --- |
| Type X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Information (optional) | full |

**Example**
Type

**Feedback**
AT-UHD-CLSO-840

## Unlock

Unlocks the buttons on the front panel. Also refer to the Lock command.

| Syntax |
| --- |
| Lock |

**This command does not require any parameters**

**Example**
Lock

**Feedback**
Lock

## Version

Displays the current version of firmware.

| Syntax |
| --- |
| Version |

**This command does not require any parameters**

**Example**
Version

**Feedback**
Firmware 0.1.55

## VIN

Sets the input volume, in decibels, for the specified input. Values for parameter Y can be specified numerically or can be incremental/decremental using the **+** or **-** character.

| Syntax |
| --- |
| VINX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Input | 1 ... 4 |
| Y | Value | -10 ... 10, +, - |

**Example**
VIN1 2

**Feedback**
VIN1 2

## VOUT

Sets the output channel volume, in decibels. Values for parameter Y can be specified numerically or can be incremental/decremental using the **+** or **-** character.

| Syntax |
| --- |
| VOUTX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Output | 1 ... 4 |
| Y | Value | -79 ... 15, +, - |

**Example**
VOUT2 +

**Feedback**
VOUT2 -9

## VOUTMute

Controls volume muting for the specified audio channel (zone). Use the sta argument to display the current muting state for the specified zone.

| Syntax |
| --- |
| VOUTMuteX Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Zone | 1 ... 4 |
| Y | State | off, on, sta |

**Example**
VOUTMute2 on

**Feedback**
VOUTMute2 on

## x?$

Enables or disables the specified output channel. Use the sta argument to display the current state.

| Syntax |
| --- |
| xX$ Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Channel | 1 ... 4 |
| Y | State | off, on, sta |

**Example**
x3$ off

**Feedback**
x3$ off

## x?All

Routes the specified input to all outputs.

| Syntax |
| --- |
| xXAll |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Channel | 1 ... 4 |

**Example**
x2All

**Feedback**
x2All

## x?AVx?

Routes the specified input to the specifed output.  Multiple outputs may be specified.  If multiple outputs are specified, use the comma delimiter with a spaces (as shown in the example below).

| Syntax |
| --- |
| xXAVxY |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Input | 1 ... 8 |
| Y | Output | 1 ... 4 |

**Example**
x3AVx2, x4, x7

**Feedback**
x3AVx2, x4, x7

## x?Ax?

Routes the audio from the specified video input to the specified audio output.

| Syntax |
| --- |
| xXAxY |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Video Input | 1 ... 8 |
| Y | Video Output | 1 ... 4 |

**Example**
x6Ax2

**Feedback**
x6AVx2

atlona.com • 408.962.0515 • 877.536.3976