

# 4K / UHD HDMI to HDBaseT Distribution Amplifier

Application Programming Interface



# Version Information

Version	Release Date	Notes
1	Nov 2018	Initial release



# Commands

The following tables provide an alphabetical list of commands available for AT-UHD-CAT-2, AT-UHD-CAT-4, AT-UHD-CAT-4ED, and AT-UHD-CAT-8. Commands are case-sensitive. If the command fails or is entered incorrectly, then the feedback is "Command FAILED". Commands can be sent using RS-232 or Telnet. There should be a 500 millisecond delay between each command sent to the unit. Default port for Telnet is 23.



**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
BCPW	Sets the auto-switching mode
Blink	Enables or disables blinking of the <b>POWER</b> LED indicator on the front panel
Broadcast	Enables or disables broadcast mode
CSpara	Sets the baud rate, data bits, parity bit, and stop bits for the serial port
EDIDCopy	Saves the downstream EDID to the specified internal memory location on the unit
EDIDMSet	Assigns the specified EDID to the <b>HDMI IN</b> port
EDIDSW	Sets the EDID mode
HDCPSet	Set the HDCP reporting mode of the specified <b>HDMI</b> input port
help	Displays the list of available commands
IPAddUser	Adds a user for Telnet and webGUI access
IPCFG	Displays the current network settings for the unit
IPDelUser	Deletes the specified user
IPDHCP	Enables or disables DHCP mode on the unit
IPLogin	Enables or disables login credentials when starting a Telnet session
IPPort	Sets the Telnet listening port for the unit
IPQuit	Closes the current Telnet session
IPStatic	Sets the static IP address, subnet mask, and gateway for the unit
IPTimeout	Sets the time interval of inactivity before the Telnet session is terminated
Lock	Locks the buttons on the front panel
Mreset	Resets the unit to factory-default settings
PWOFF	Execute this command to power-off the unit
PWON	Execute this command to power-on the unit
PWSTA	Displays the power state of the unit
System	Displays the status of the unit
TrigCEC	Triggers the specified command
Туре	Displays the model of the unit
Unlock	Unlocks the buttons on the front panel
Version	Displays the current firmware version of the unit



#### **BCPW**

Sets the function of the **POWER** button on the front panel. Refer to the table below for a description of each argument. Use the sta argument to display the current setting.

Syntax		
BCPW X		

Parameter	Description	Range
Χ	Mode	local, cec, both, sta

ExampleFeedbackBCPW localBCPW local

Mode	Description
local	Pressing the <b>POWER</b> button will toggle the AT-UHD-CAT-XX between standby mode and normal operating mode.
cec	When a sink device (display) is connected to the AT-UHD-CAT-XX, pressing the <b>POWER</b> button will toggle the power state of the display using the CEC protocol. <i>The power state of the AT-UHD-CAT-XX is unaffected</i> . Power-on and power-off commands are sent over both the <b>HDBaseT OUT</b> and <b>HDMI OUT</b> ports
both	Pressing the <b>POWER</b> button will toggle the power state of <i>both</i> the AT-UHD-CAT-XX and any sink devices that are connected to the AT-UHD-CAT-XX, using the CEC protocol. Power-on and power-off commands are sent over both the <b>HDBaseT OUT</b> and <b>HDMI OUT</b> ports.

#### **Blink**

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

Syntax	
Blink X	

Parameter Descri	ption Ra	Range
X Value	or	on, off, sta

**Example**Blink on
Blink on



#### **Broadcast**

Enables or disables broadcast mode. By default, broadcast mode is set to ON. When set to ON, any system changes will be broadcast to the web GUI will also be affected on the control system (if connected), via TCP/IP. To separate control between the web GUI and Telnet, set this feature to OFF. Command queries such as #IPCFG and #Type will only return information to the requester. Use the sta argument to display the current setting.

Syntax	
Broadcast X	

Parameter	Description	Range
Χ	Value	on, off, sta

Example	Feedback
Broadcast on	Broadcast on

#### **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
Υ	Parity bit	None, Odd, Even
Z	Stop bits	1, 2

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



# **EDIDCopy**

Copies the downstream EDID to the **HDMI IN** port. If no sink device is connected to the HDMI OUT port, then "Output 1 was no connected" will be returned.

Syntax	
EDIDCopy	

This command does not require any parameters

ExampleFeedbackEDIDCopyEDIDCopy

#### **EDIDMSet**

Assigns an EDID to the **HDMI IN** port. A brief description of each preprogrammed EDID is listed in the table below. To display the EDID assigned to an input, use the sta argument.

Syntax	
EDIDMSetX	

Parameter	Description	Range
Χ	EDID preset	0 16, sta

ExampleFeedbackEDIDMSet2EDIDMSet2

EDID	
STD	ATL 1280x800 RGB 2CH
ATL 1080P 2CH	ATL 1366x768 RGB 2CH
ATL 1080P Multi CH	ATL 1080P DVI
ATL 1080P DD	ATL 1280x800 RGB DVI
ATL 1080P 3D 2CH	ATL 3840x2160@30 2CH
ATL 1080P 3D Multi CH	ATL 3840x2160@30 Multi CH
ATL 1080P 3D DD	ATL 3840x2160@60 2CH
ATL 720P 2CH	ATL 3840x2160@60 Multi CH
ATL 720P DD	



#### **EDIDSW**

Sets the EDID mode. int = internal EDID (use the EDIDMSet command to select the EDID), learn = fetches the downstream EDID and copies it to the HDMI IN port. Use the sta argument to display the current setting.

Syntax	
EDIDSWX	

Parameter	Description	Range
X	Mode	int, learn, sta
Example EDIDSWint		Feedback EDIDSWint

#### **HDCPSet**

Set the HDCP reporting mode of the **HDMI** input port. Some computers will send HDCP content if an HDCP-compliant display is detected. Setting this value to off, will force the computer to ignore detection of HDCP-compliant displays. Disabling this feature will *not* decrypt HDCP content. on = enables HDCP detection; off = disables HDCP detection; sta = displays the current setting. No space should exist between the first argument and the command.

Syntax		
HDCPSet X		

Parameter	Description	Range
X	Reporting status	on, off, sta
Example		Feedback

ExampleFeedbackHDCPSet offHDCPSet off



## 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
Χ	Command name (optional)	Command
<b>Example</b> help		Feedback Command List
		Help IPCFG IPDHCP

#### **IPAddUser**

Adds a user for Telnet control. This command performs the same function as adding a user within the **Config** page of the web GUI. Refer to the User Manual for more information.

Syntax	
IPAddUser X Y	

Parameter	Description	Range
Χ	User name	20 characters (max)
Υ	Password	20 characters (max)

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



#### **IPCFG**

Displays the current network settings for the unit.

Syntax	
IPCFG	

This command does not require any parameters

**Example** Feedback

IPCFG Mac Addr: B8:98:B0:05:DF:F7

IP Addr: 10.0.1.101 Netmask: 255.255.255.0

Gateway: 10.0.1.1 Telnet Port: 23 HTTP Port: 80

#### **IPDelUser**

Deletes the specified TCP/IP user. This command performs the same function as removing a user within the **Config** page of the web GUI. Refer to the User Manual for more information.

Syntax	
IPDelUser X	

Parameter	Description	Range
Χ	User	User name

ExampleFeedbackIPDelUser MinionTwoIPDelUser MinionTwo

TCP/IP user was deleted

#### **IPDHCP**

Enables or disables DHCP mode on the unit. on = enables DHCP mode; off = disables DHCP mode; sta = displays the current setting. If this feature is disabled, then a static IP address must be specified for the unit. Refer to the IPQuit command for more information.

Syntax	
IPDHCP X	

Parameter	Description	Range
Χ	Value	on, off, sta

ExampleFeedbackIPDHCP onIPDHCP on



# **IPLogin**

Enables or disables the use of login credentials when starting a Telnet session on the unit. If this feature is set to on, then the unit 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.

Syntax	
IPLogin X	

Parameter	Description	Range
Χ	Value	on, off, sta
•		Feedback IPLogin off

#### **IPPort**

Sets the Telnet listening port for the unit. Use the sta argument to display the current setting.

Syntax	
IPPort X	

Parameter	Description	Range
X	Port	0 65535, sta
Example IPPort 23		Feedback IPPort 23

#### **IPQuit**

Closes the current Telnet session.

Syntax	
IPQuit	

This command does not require any parameters

Example	Feedback
IPQuit	Connection lost



#### **IPStatic**

Sets the static IP address, subnet mask, and gateway (router) address of the unit. Before using this command, DHCP must be disabled on the unit. 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 is 192.168.1.254.

Syntax	
IPStatic X Y Z	

Parameter	Description	Range
X	IP address	0 255 (per byte)
Υ	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 Telnet session is automatically closed.

Syntax	
IPTimeout X	

Parameter	Description	Range
Χ	Interval (in seconds)	1 60000

Example Feedback
IPTimeout 300 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

#### **Mreset**

Resets the unit to factory-default settings.

Syntax Mreset

This command does not require any parameters

**Example Feedback** Mreset Mreset

#### **PWOFF**

Executing this command will power-off the AT-UHD-CAT-XX. 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-UHD-CAT-XX. 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-UHD-CAT-XX.

Syntax PWSTA

This command does not require any parameters

**Example**PWSTA

Feedback
PWON



#### **System**

Displays the status of the unit.

Syntax		
System X		

Parameter	Description	Range
Χ	Format	sta, dev
Example System sta		Feedback Model: AT-UHD-CAT-2 MAC Addr: b8-98-b0-00-01-d2 Address Type: DHCP IP: 10.0.1.192 Netmask: 255.255.255.0 Gateway: 10.0.1.1 HTTP Port: 80 Telnet Port: 23 Firmware: 0.6.05 On/Up Time (dd HH:mm:ss): 00 00:28:37

# **TrigCEC**

Sends the specified command to the display using CEC. The first parameter is the zone output: 1 = **HDBaseT OUT** 1, 2 = **HDBaseT OUT** 2, 3 = **HDMI OUT**, all = all outputs. Note that CEC is an HDMI protocol. Therefore, HDBaseT outputs will trigger CEC commands from the connected receiver. Do not add a space between the command and the first argument.

Power Status: PWON

Syntax	
TrigCECX Y	

Parameter	Description	Range
Χ	Zone	1 3, all
Υ	Command	on, off

Example	Feedback
TrigCEC1 on	TrigCEC1 on



## **Type**

Displays the model information of the unit.

Syntax
Type

This command does not require any parameters

**Example**Type

Feedback
AT-UHD-CAT-4ED

#### **Unlock**

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

Syntax Unlock

This command does not require any parameters

**Example**Unlock

Feedback
Unlock

#### Version

Displays the current firmware version of the unit.

Syntax Version

This command does not require any parameters

**Example** Version Feedback 1.0.00



