



# **4K/UHD** **16x16 HDMI to HDBaseT** **Matrix Switcher**

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Application Programming Interface  
16.1.0

## Version Information

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Version	Release Date	Notes
1	11/18	New format

## Commands

The following tables provide an alphabetical list of commands available on the AT-UHD-PRO3-1616M. 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
Blink	Enables or disables blinking of the <b>POWER</b> 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 master serial port
EDIDMSet	Assigns the specified EDID to the desired input
EDIDOut	Saves the downstream EDID to the specified memory location
help	Displays the available list of commands
HTTPPort	Sets the HTTP listening port
IPAddUser	Adds a user for Telnet control
IPCFG	Displays the current network settings for the AT-UHD-PRO3-1616M
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-PRO3-1616M
IPLogin	Enables or disables login credentials when starting a Telnet session
IPPort	Sets the Telnet listening port for the AT-UHD-PRO3-1616M
IPQuit	Terminates the current Telnet session
IPStatic	Sets the static IP address, subnet mask, and gateway for the matrix
IPTimeout	Specifies the time interval of inactivity before the Telnet session is closed
IROFF	Disables the IR window on the front panel
IRON	Enables the IR window on the front panel
Lock	Locks the buttons on the front panel
MirrorHdmi	Enables / disables mirroring for the specified video outputs
Mreset	Resets the AT-UHD-PRO3-1616M to factory-default settings
PWOFF	Places the AT-UHD-PRO3-1616M in standby mode
PWON	Powers-on the matrix
PWSTA	Displays the current power state
Recall	Recalls the specified routing preset
RS232para	Sets the baud rate, data bits, stop bits, and parity for RS-232 over HDBaseT
RS232zone	Send a command to the RS-232 device connected to the <b>RS-232</b> port on the receiver

Command	Description
Save	Saves the current routing state to the specified preset
sddp_announce	Sends an SDDP announcement
set_host_name	Sets the host name
show_host_name	Displays the host name
Status	Displays which inputs are connected to which outputs
Statusx	Displays which input (specifically) is connected to which output
syslock	Enables / disables SSH
Type	Displays the model of the transmitter
Unlock	Unlocks the buttons on the front panel
UnMirror	Disables mirroring on the specified HDMI output
Version	Displays the current firmware version of the AT-UHD-PRO3-1616M
VOUT	Specifies the volume output 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)

### 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#
```

### Blink

Enables or disables blinking of the **POWER** button on the front panel. When set to on, the **POWER** button will flash 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 ... 50

### Example

```
Clear2
```

### Feedback

```
Clear2
```

## CSpa

Sets the baud rate for the **RS-232** port on the AT-UHD-PRO3-1616M. The baud rate must be enclosed in brackets.

### Syntax

```
CSpa[X]
```

Parameter	Description	Range
X	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200

### Example

```
CSpa[19200]
```

### Feedback

```
CSpa[19200]
```

## 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 ten memory locations. A brief description of each pre-programmed EDID is listed in the table below. To display the EDID assigned to an input, use the sta argument. Do not use a space between the command and the first parameter.

### Syntax

```
EDIDMSetX Y
```

Parameter	Description	Range
X	Input	1 ... 16
Y	EDID	default, save1 ... save10, int1 ... int23, sta

### Example

```
EDIDMSet3 int6
EDIDMSet3 sta
```

### Feedback

```
EDIDMSet3 int6
EDIDMSet3 int6
```

## EDIDOut

Save the EDID of the display (sink) to the specified memory location.

### Syntax

```
EDIDOutX Y
```

Parameter	Description	Range
X	Output	1 ... 20
Y	Memory location	save1 ... save10

### Example

```
EDIDOut2 save2
```

### Feedback

```
EDIDOut2 save2
```

## 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-PRO3-1616M.

### Syntax

```
HTTPPort X
```

Parameter	Description	Range
X	Port	0 ... 65535

### Example

```
HTTPPort 8080
```

### Feedback

```
HTTPPort 8080
```



### 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-PRO3-1616M.

#### Syntax

```
IPCFG
```

**This command does not require any parameters**

#### Example

```
IPCFG
```

#### Feedback

```
MAC addr: B8:98:B0:03:18:4C
IP addr: 10.0.1.89
Netmask: 255.255.255.0
Gateway: 10.0.1.1
Web Port: 80
IP Port: 23
```

### 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-PRO3-1616M. 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-PRO3-1616M. If this feature is set to on, then the AT-UHD-PRO3-1616M 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 Telnet listening port for the AT-UHD-PRO3-1616M.

#### 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-UHD-PRO3-1616M. Before using this command, DHCP must be disabled on the AT-UHD-PRO3-1616M. 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-PRO3-1616M 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 Telnet session is terminated. The default setting is 300 seconds.

#### Syntax

```
IPTimeout X
```

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

#### Example

```
IPTimeout 300
```

#### Feedback

```
IPTimeout 300
```

### IROFF

Disables the IR window on the front panel.

#### Syntax

```
IROFF
```

**This command does not require any parameters**

#### Example

```
IROFF
```

#### Feedback

```
IROFF
```

### IRON

Enables the IR window on the front panel.

#### Syntax

```
IRON
```

**This command does not require any parameters**

#### Example

```
IRON
```

#### Feedback

```
IRON
```

### 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
```

### MirrorHdmi

Enables or disables mirroring for the specified video output. Refer to the User Manual for more information on mirroring. Use the **UnMirror** command to disable output mirroring.

#### Syntax

```
MirrorHdmiX Y
```

Parameter	Description	Range
X	HDMI Output	17 ... 20
Y	Video Output (HDBaseT)	Out1 ... Out16

#### Example

```
MirrorHdmi18 Out3
```

#### Feedback

```
MirrorHdmi18 Out3
```

### Mreset

Resets the AT-UHD-PRO3-1616M 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-UHD-PRO3-1616M. 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-PRO3-1616M. 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-PRO3-1616M.

#### 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 ... 50

#### Example

```
Recall2
```

#### Feedback

```
Recall2
```

### RS232para

Sets the baud rate for RS-232 over the HDBaseT (**ZONE OUT**) ports. The baud rate must be included in brackets.

#### Syntax

```
RS232paraX[Y]
```

Parameter	Description	Range
X	Zone	1 ... 16
Y	Baud rate	2400, 9600, 19200, 38400, 56000, 57600, 115200

#### Example

```
RS232para3[115200]
```

#### Feedback

```
RS232para3[115200]
```

### 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

```
RS232zoneX[Y]
```

Parameter	Description	Range
X	Output port (zone)	1 ... 16
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 ... 50

### Example

```
Save2
```

### Feedback

```
Save2
```

## sddp\_announce

Manually sends an SDDP announcement. This command is used in conjunction with Control4® devices.

### Syntax

```
sddp_announce
```

**This command does not require any parameters**

### Example

```
sddp_announce
```

### Feedback

```
SDDP Announcement processed!
```

## set\_host\_name

Sets the host name. This command is used in conjunction with the SDDP protocol. No spaces are permitted in the host name.

### Syntax

```
set_host_name X
```

Parameter	Description	Range
X	String	(40 characters, max.)

### Example

```
set_host_name div_room1
```

### Feedback

```
set_host_name div_room1
```

## show\_host\_name

Displays the host name.

### Syntax

```
show_host_name
```

This command does not require any parameters

### Example

```
show_host_name
```

### Feedback

```
div_room1
```

## Status

Displays the current routing status for each output.

### Syntax

```
Status
```

This command does not require any parameters

### Example

```
Status
```

### Feedback

```
x1AVx1,x2AVx2,x3AVx3,x4AVx4,x5AVx5,x6AVx6,x7AVx7,x8AVx8,x9AVx9,x10AVx10,x11AVx11,x12AVx12,x13AVx13,x14AVx14,x15AVx15,x16AVx16,x13AVx17,x14AVx18,x15AVx19,x16AVx20
```

## Statusx

Displays the current routing status for the specified output.

### Syntax

```
Statusx X
```

Parameter	Description	Range
X	Output	1 ... 10

### Example

```
Statusx8
```

### Feedback

```
x7AVx8
```

### syslock

Enables or disables SSH. When enabled, this command shuts down the web server and closes all ports, except for SSH (TCP 22). Note that local RS-232 master port control will still be available. Use the `sta` argument to display the current setting.

#### Syntax

```
syslock X
```

Parameter	Description	Range
X	State	on, off, sta

**Example**  
syslock on

**Feedback**  
syslock on

### Type

Displays the model information of the AT-UHD-PRO3-1616M. 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-PRO3-1616M

### 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

## UnMirror

Disables mirroring on the specified HDMI output port.

### Syntax

```
UnMirrorX
```

Parameter	Description	Range
X	HDMI Output	17 ... 20

**Example**  
UnMirror18

**Feedback**  
UnMirror18

## Version

Displays the current version of firmware.

### Syntax

```
Version
```

**This command does not require any parameters**

**Example**  
Version

**Feedback**  
Firmware 16.1.0

## 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 ... 16
Y	Value	-79 ... 15, +, -

**Example**  
VOUT2 -20

**Feedback**  
VOUT2 -20

## 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 ... 16
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 ... 20
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 ... 16

### Example

```
x2All
```

### Feedback

```
x2All
```

## x?AVx?

Routes the specified input to the specified output. Multiple outputs may be specified. If multiple outputs are specified, separate the arguments with commas and no spaces (as shown in the example below).

### Syntax

```
xXAVxY
```

Parameter	Description	Range
X	Input	1 ... 16
Y	Output	1 ... 20

### Example

```
x3AVx2,x4,x7
```

### Feedback

```
x3AVx2,x4,x7
```

