



**OMEGA™**

**4K / UHD Three-Input Switcher for  
HDMI and USB-C with HDBaseT and HDMI Outputs**

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Application Programming Interface  
1.0.05

## Version Information

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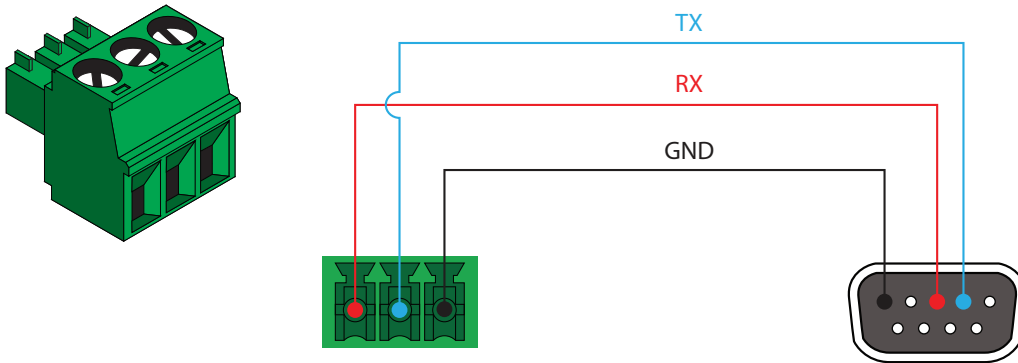
Version	Release Date	Notes
3	Mar 2023	Added <code>OutHdmi5vKeep</code> command.

## Introduction

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### RS-232

A 3-pin captive screw connector has been included for RS-232.



RS-232 is often connected through a DB 9-pin to captive screw connector. The pins will have functions associated with them, some will be unassigned.

**NOTE:** Typical DB9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices functions of pins 2 and 3 are reversed.

Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and GND (ground).

Baud parameters must be met for control signals to pass. The parameters can be updated through the built in webGUI. The defaults for the RS-232 ports are: 9600, 8-bit, None, 1.

## Commands

The following tables provide an alphabetical list of commands available for AT-OME-ST31A. 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. The 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
Blink	Enables or disables blinking of the <b>POWER</b> button on the front panel
CommaWait	Enables or disables a comma adding a 5 second delay between commands
DispBtn	Simulates pressing the DISPLAY button on the front panel
help	Displays a list of available help commands
InputStatus	Displays the status for each input
IP802.1x	Sets the security authentication type
IPCFG	Displays IP address configuration
IPDHCP	Turns DHCP on / off
IPStatic	Sets a static IP address
Lock	Locks the buttons on the front panel
LRAUD	Mutes the audio on the analog output
Mreset	Sets the unit back to default settings
OutHdmi5vKeep	Enables or disables the HDMI +5V signal on the HDMI output port
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
RepCmdTime	Sets the number of times a command is repeated
RepeatCmd	Enables or disabled the RepCmdTime feature
RHostName	Displays the host name for the AT-OME-ST31A
RS232zone	Triggers the unit to send the RS-232 command to the display connected to the HDBaseT receiver’s RS-232 port
SHostName	Sets the host name for the unit
Status	Displays the routing state of the unit
Type	Displays the model of the unit
Unlock	Unlocks the buttons on the front panel
Version	Displays the current firmware version of the unit
VOUTMute	Mutes the output volume for the specified output
xY\$	Mutes/Unmutes AV signals for the specified output channel
xYAVxZ	Switches the specified input to the specified output

### 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

### CommaWait

Adds a 5 second delay between commands, when a comma is included

#### Syntax

```
CommaWait X
```

Parameter	Description	Range
X	Value	on, off, sta

#### Example

CommaWait on

#### Feedback

CommaWait on

### DispBtn

Sets the command triggered through display control (set in the webGUI).

#### Syntax

```
DispBtn X
```

Parameter	Description	Range
X	State	on, off, tog, sta

#### Example

DispBtn on

#### Feedback

DispBtn on



**NOTE:** The feedback will display channel status: 0 is no signal detected and 1 is signal detected.

### 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

```
Blink
CommaWait
DispBtn
System
IPCFG
IPStatic
...
...
```

### InputStatus

Displays the status of the specified input as either a 0 or 1. 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 010
```

### IP802.1x

Sets the security setting for use with RADIUS server authentication. Use the sta argument to display the current setting.

#### Syntax

```
IP802.1x X
```

Parameter	Description	Range
X	Security setting	disable, PEAP, TTLS, TLS, sta

#### Example

```
IP802.1x TTLS
```

#### Feedback

```
IP802.1x TTLS
```

### IPCFG

Displays the current network settings for the unit.

#### Syntax

```
IPCFG
```

**This command does not require any parameters**

#### Example

```
IPCFG
```

#### Feedback

```
IP Addr: 10.0.1.101
Netmask: 255.255.255.0
Gateway: 10.0.1.1
IP Port: 23
```

### 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 [IPStatic](#) command for more information.

#### Syntax

```
IPDHCP X
```

Parameter	Description	Range
X	Value	on, off, sta

#### Example

```
IPDHCP on
```

#### Feedback

```
IPDHCP on
```

### 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)
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
```

### 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
```



### LRAUD

Enables / disables the audio on the analog audio output.

#### Syntax

```
LRAUD
```

Parameter	Description	Range
X	Status	on, off, sta

**Example**  
LRAUD off

**Feedback**  
LRAUD off

### Mreset

Resets the unit to factory-default settings.

#### Syntax

```
Mreset
```

**This command does not require any parameters**

**Example**  
Mreset

**Feedback**  
Mreset

### OutHdmi5vKeep

Enables or disables the HDMI +5V signal on the HDMI output port. Some downstream devices will detect the loss of an HDMI signal by looking for a +5V on the HDMI connection. The AT-OME-ST31A holds the +5V pin high by default, regardless of the output signal state. on = Holds the +5V high all the time (default); off = +5V signal follows the presence of video on the HDMI output port; sta = displays the current setting.

#### Syntax

```
OutHdmi5vKeep X
```

Parameter	Description	Range
X	State	on, off, sta

**Example**  
OutHdmi5vKeep off

**Feedback**  
OutHdmi5vKeep off

### PWOFF

Executing this command will power-off the unit. Execute 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 unit. 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 unit.

Syntax
PWSTA

This command does not require any parameters

**Example**

PWSTA

**Feedback**

PWON

### RepCmdTime

Sets the number of time a command will be sent. Specify the sta argument to display the current setting.

#### Syntax

```
RepCmdTime X
```

Parameter	Description	Range
X	Times to repeat command	2 ... 4, sta

#### Example

```
RepCmdTime 3
```

#### Feedback

```
RepCmdTime 3
```

### RepeatCmd

Enables / disables the **RepCmdTime** feature. Specify the sta argument to display the current setting.

#### Syntax

```
RepeatCmd X
```

Parameter	Description	Range
X	Status	on, off, sta

#### Example

```
RepeatCmd on
```

#### Feedback

```
RepeatCmd on
```

### RHostName

Displays the hostname of the unit.

#### Syntax

```
RHostName
```

**This command does not require any parameters**

#### Example

```
RHostName
```

#### Feedback

```
RHostName OMEST31-010C90
```

### RS232zone

Sends commands to the HDBaseT device. 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]
```

Parameter	Description	Range
X	Command	String

#### Example

```
RS232zone[command]
```

#### Feedback

```
RS232zone[command]
```

### SHostName

Sets the hostname of the unit. The string name must not contain any spaces.

#### Syntax

```
SHostName X
```

Parameter	Description	Range
X	Name	String

#### Example

```
SHostName AT-OME-ST31A_Huddle1
```

#### Feedback

```
SHostName AT-OME-ST31A_Huddle1
```

### Status

Displays which input is routed to which output. Refer to the **xYAVxZ** command for more information.

#### Syntax

```
Status
```

**This command does not require any parameters**

#### Example

```
Status
```

#### Feedback

```
x2AVx1,x2AVx2
```

### Type

Displays the model information of the unit.

Syntax
Type

This command does not require any parameters

#### Example

Type

#### Feedback

AT-OME-ST31A

### 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

1.0.05

### VOUTMute

Mutes / unmutes the output volume for the specified output. The first argument references the output: 1 = HDMI, 2 = HDBaseT. No space should exist between the command and the first argument.

#### Syntax

```
VOUTMuteX Y
```

Parameter	Description	Range
X	Output	1, 2
Y	State	on, off, sta

#### Example

```
VOUTMute1 2 off
```

#### Feedback

```
VOUTMute1 2 off
```

### xY\$

Enables / disables video for the specified output. The first argument references the output: 1 = HDMI, 2 = HDBaseT.

#### Syntax

```
xY$ Z
```

Parameter	Description	Range
Y	Output	1, 2
Z	State	on, off, sta

#### Example

```
x2$ off
```

#### Feedback

```
x2$ off
```

### xYAVxZ

Switches the specified input to the specified output. The first argument references the input: 1 = USB-C, 2 = HDMI 1, 3 = HDMI 2. The second argument must always be 1. Both HDMI and HDBaseT outputs will output the same source signal. Note that the feedback will display that the specified input is being routed to both output 1 (HDMI) and output 2 (HDBaseT), as shown below.

#### Syntax

```
xYAVxZ
```

Parameter	Description	Range
Y	Input	1 ... 3
Z	Output	1

#### Example

```
x3AVx1
```

#### Feedback

```
x3AVx1
```

