AT-OME-MS42-HDBT

Omega™ 4x2 Matrix Switcher HDBaseT + USB

API Command Reference

October 2026



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Version Information

This document lists the commands for controlling the AT-OME-MS42-HDBT over RS-232, Telnet, SSH, and TCP. Its version history follows the original command reference.

Version	Date	Notes
1	Jun 2024	Initial release
HR 1.0	October 2026	Converted to the Hall Research document format. No command changes.

Sales & Customer Support

Item	Details
Main Office (US)	Hall Research, 1234 Lakeshore Dr Suite #150, Coppell, TX 75019
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Product Page (AT-OME-MS42-HDBT)	https://www.hallresearch.com/product/AT-OME-MS42-HDBT

IMPORTANT: Visit hallresearch.com/product/AT-OME-MS42-HDBT for the latest firmware updates and documentation.

Introduction

General

This document provides an alphabetical list of the commands available for the AT-OME-MS42-HDBT. Commands are case-sensitive. If a command fails or is entered incorrectly, the feedback is “Command FAILED”. Commands can be sent using RS-232, Telnet, SSH, or TCP. Allow a 500 millisecond delay between commands sent to the unit. The default Telnet port is 23. TCP ports are 9000, 9001, 9002, and 9003.

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

Ports

This product can communicate directly with local and remote RS-232 (over HDBaseT) ports using a direct TCP socket connection. For ports connected to RS-232 interfaces, no additional payload is required: all data sent to the TCP port is sent bit-for-bit to the RS-232 output. If feedback is required from the RS-232 device, keep the TCP socket open. The product does not buffer or queue data, so any data received from the RS-232 port while the TCP socket is closed is lost.

TCP Port	Description
9000	MCU (similar to Telnet)
9001	HDBaseT input
9002	HDBaseT output
9003	Local RS-232

Example: with the device at IP address 192.168.1.100 and a PJLink projector connected to the RS-232 port of the HDBaseT receiver:

- Open a TCP socket to 192.168.1.100:9002 and send the command string:

```
%1POWR 1\x0D
```

- The projector responds on the same socket connection with:

```
$1POWR=OK\x0D
```

RS-232

A 3-pin captive screw connector is included for RS-232. Wire it as TX (transmit), RX (receive), and GND (ground) according to the RS-232 cable; RS-232 is often connected through a DB9-to-captive-screw cable, where some DB9 pins are unassigned. See the AT-OME-MS42-HDBT Instructions for Use for details on RS-232 control.

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

The baud parameters must match for control signals to pass. They can be changed in the built-in web interface. The default settings are:

Port	Default Settings
RS-232, HDBaseT IN, HDBaseT OUT	115200 baud, 8 data bits, no parity, 1 stop bit

Command Quick Reference

Select a command name to go to its full description.

Command	Description
Blink	Enables or disables blinking of the POWER LED indicator on the front panel
DispBtn	This command emulates pressing the DISPLAY button on the front panel
help	Displays the list of available commands
InputStatus	Displays the status of the inputs as either a 0 or 1
IP802.1x	Sets the security setting for use with RADIUS server authentication
IPCFG	Displays the current network settings for the unit
IPDHCP	Enables or disables DHCP mode on the unit
IPStatic	Sets the static IP address, subnet mask, and gateway (router) address of the unit
Lock	Locks the buttons on the front panel
LRAUD	Enables or disables the analog audio output
Mreset	Resets the unit to factory-default settings
OutHdmi5vKeep	This option sets the +5V pin on the HDMI OUT port to the desired setting
PWOFF	Executing this command will power-off the unit
PWON	Executing this command will power-on the unit
PWSTA	Displays the current power state of the unit
Reboot	Performs a soft reboot of the AT-OME-MS42-HDBT
RS232zone	Sends commands to the HDBaseT device
Status	Displays which input is routed to which output
Type	Displays the model information of the unit
Unlock	Unlocks the buttons on the front panel
USBHostLogic	Sets the USB mode for the AT-OME-MS42-HDBT
USBHostRoute	Sets the routing state of the USB host
UsbVbusControl	This feature provides the ability to toggle the USB Vbus
Version	Displays the current firmware version of the unit
VOUTMute	Mutes / unmutes the output volume for the specified output
xY$	Enables / disables video for the specified output
xYAVxZ	Switches the specified input to the specified output

Commands

Blink

Enables or disables blinking of the POWER LED indicator on the front panel. When set to on, the POWER indicator will flash blue, and can be used to physically identify the unit on a network. The POWER indicator will flash until the Blink off command is executed or the unit is rebooted. 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
```

DispBtn

This command emulates pressing the DISPLAY button on the front panel. This command can perform different functions, depending on which value it is assigned.

Syntax

```
DispBtn X
```

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

Example

```
DispBtn on
```

Feedback

```
DispBtn 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

```
Blink
DispBtn
System
IPCFG
IPStatic
…
…
…
```

InputStatus

Displays the status of the inputs 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 0100
```

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
Telnet Port: 23
```

IPDHCP

Enables or disables DHCP mode on the unit. on = enables DHCP mode; off = disables DHCP and sets the unit to the defined Static IP mode; sta = displays the current setting. A static IP address must be configured for the unit first before disabling DHCP. 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 or disables the analog audio output.

Syntax

```
LRAUD X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
LRAUD on
```

Feedback

```
LRAUD on
```

Mreset

Resets the unit to factory-default settings.

Syntax

```
Mreset
```

This command does not require any parameters.

Example

```
Mreset
```

Feedback

```
Mreset
```

OutHdmi5vKeep

This option sets the +5V pin on the HDMI OUT port to the desired setting. This feature allows a display to go to sleep when there is no signal present. It's also used for VTC codecs that need to see a change in HDMI +5V in order to change modes. If faster switching times are desired, then this should be set to on. Use the sta argument to fetch the current setting.

Syntax

```
OutHdmi5vKeep X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
OutHdmi5vKeep on
```

Feedback

```
OutHdmi5vKeep on
```

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
```

Reboot

Performs a soft reboot of the AT-OME-MS42-HDBT. All system settings are preserved.

Syntax

```
Reboot
```

This command does not require any parameters.

Example

```
Reboot
```

Feedback

```
Reboot
```

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. Note that this command has been deprecated and is for legacy use. It is recommended to use the TCP socket functionality, under Ports (page 3).

Syntax

```
RS232zone[X]
```

Parameter	Description	Range
X	Command	String

Example

```
RS232zone[test]
```

Feedback

```
RS232zone[test]
```

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-MS42-HDBT
```

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
```

USBHostLogic

Sets the USB mode for the AT-OME-MS42-HDBT. Use the sta argument to display the current setting.

Syntax

```
USBHostLogic X
```

Parameter	Description	Range
X	Mode	follow usb, follow video, manual, sta

Example

```
USBHostLogic follow video
```

Feedback

```
USBHostLogic follow video
```

USBHostRoute

Sets the routing state of the USB host. C = USB-C port, 1 = USB Host 1, 2 = USB Host 2, 3 = remote USB host connected over HDBaseT IN, 4 = remote USB host connected over HDBaseT OUT. Use the sta argument to display the current setting.

Syntax

```
USBHostRoute X
```

Parameter	Description	Range
X	Port	C, 1...4, sta

Example

```
USBHostRoute C
```

Feedback

```
USBHostRoute C
```

UsbVbusControl

This feature provides the ability to toggle the USB Vbus. This allows the USB hub port to always provide power or follow the presence of the connected USB host. Use the sta argument to display the current setting.

Syntax

```
UsbVbusControl X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
UsbVbusControl on
```

Feedback

```
UsbVbusControl on
```

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. Do not include a space between the command and the first argument. Use the sta argument to display the current setting.

Syntax

```
VOUTMuteX Y
```

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

Example

```
VOUTMute2 off
```

Feedback

```
VOUTMute2 off
```

xY$

Enables / disables video for the specified output. The first argument references the output: 1 = HDMI, 2 = HDBaseT. The second argument enables or disables the video output. on = enable video; off = disable video. Use the sta argument to display the current setting.

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 = DisplayPort, 3 = HDMI 1, and 4 = HDMI 2. If the system is in matrix mode, then 1 or 2 can be specified as output flags.

Syntax

```
xYAVxZ
```

Parameter	Description	Range
Y	Input	1 ... 4
Z	Output	1, 2

Example

```
x3AVx1
```

Feedback

```
x3AVx1, x3AVx2
```