ATLONA
a PANDUIT company

OMEGA™

4x2 Matrix Switcher with USB

Application Programming Interface
1.1.2

AT-OME-MS42

Atlona Manuals
Switchers

Version Information

Version	Release Date	Notes
3	Sep 2022	Updated to new color format

Introduction

General

This document provides an alphabetical list of commands available for AT-OME-MS42. 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, Telnet, SSH, or TCP. There should be a 500 millisecond delay between each command sent to the unit. The default port for Telnet is 23. TCP ports are 9000, 9001, and 9002.

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. The default port assignment is from left-to-right, viewed from the rear panel. Refer to the table below for the port assignment for this product. For ports connected to RS-232 interfaces, no additional payload is required to transmit data to the device. All data sent to the respective TCP port will be sent bit-for-bit to the RS-232 output. Note that if feedback is required from the RS-232 device, the TCP socket must be kept open. This product does not provide buffer or queuing registers. Therefore, any data from the RS-232 port that is received while the TCP socket connection is closed, will be lost.

Port	Description
9000	MCU (similar to Telnet)
9001	HDBaseT RS-232 port
9002	Local RS-232 port

Example:
With the device IP address of 192.168.1.100 and a PJLINK projector connected to the RS-232 of the HDBaseT output.

1. Open a TCP socket to 192.168.1.100:9001 and send the following command string:

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

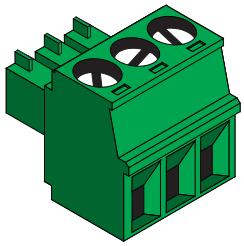
2. The projector will respond with the following, using the same socket connection:

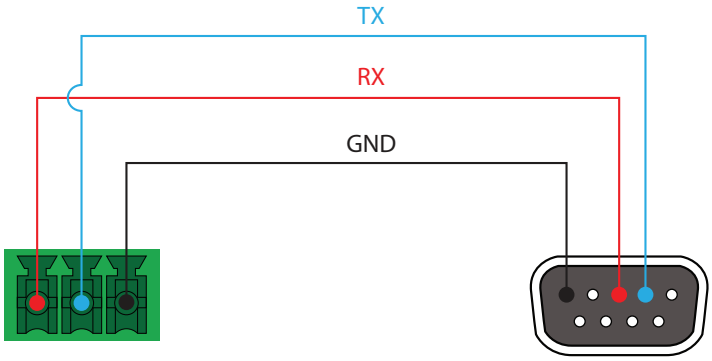
   ```
   $1POWR=OK\x0D
   ```

Introduction

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.

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

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.

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

Command	Description
Blink	Enables or disables blinking of the **POWER** button on the front panel
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	Enables or disables the analog audio output
Mreset	Sets the unit back to 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
Reboot	Performs a soft reboot of the AT-OME-MS42
RepCmdTime	Sets the number of times a command is repeated
RepeatCmd	Enables or disabled the RepCmdTime feature
RS232zone	Triggers the unit to send the RS-232 command to the display connected to the HDBaseT receiver's RS-232 port
Status	Displays the routing state of the unit
Type	Displays the model of the unit
Unlock	Unlocks the buttons on the front panel
USBHostLogic	Sets the USB mode of the unit
USBHostRoute	Sets the routing state of the USB host
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** 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

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

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. All system settings are preserved.

Syntax
Reboot

This command does not require any parameters

Example
Reboot

Feedback
Reboot

RepCmdTime

Sets the number of time a command will be sent. This may be required in systems where a command must be transmitted more than once, before an acknowledgement message is received. 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	State	on, off, sta

Example
RepeatCmd on

Feedback
RepeatCmd on

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 is deprecated and 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

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. 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. Use the sta argument to display the current setting.

Syntax
USBHostRoute X

Parameter	Description	Range
X	Port	C, 1, 2, 3, sta

Example
USBHostRoute C

Feedback
USBHostRoute C

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