



OMEGA™ 4K/UHD 6x2 Matrix Switcher for HDMI, USB-C, and HDBaseT with USB

Application Programming Interface

Version Information

Version	Release Date	Notes
1	Sep 2019	Release
2	Jan 2021	Added TCP proxy and RS-232 port parameters
3	May 2021	Added RS232 para command and updated USB commands
4	Oct 2021	Added proxy port 9004 and updated VOUT command for 1.2.1 firmware update

Introduction

General

This document provides an alphabetical list of commands available for AT-OME-PS62. 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 and 22 for SSH. TCP ports are 9000, 9001, 9002, 9003, and 9004.



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
9001	HDBaseT input1
9002	HDBaseT input 2
9003	HDBaseT output
9004	Local RS-232 display control

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:

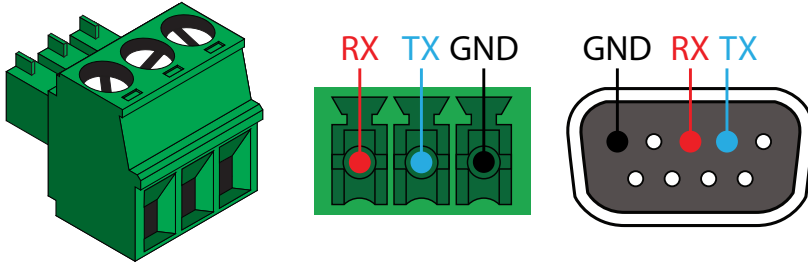
```
%1POWR 1\x0D
```

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

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

RS-232

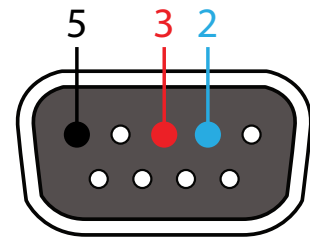
A 3-pin captive screw connector has been included for RS-232.



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

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.



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 port is:

Port 1 (unit control) - 115200, 8-bit, None, 1

Commands

The following tables provide an alphabetical list of commands available on the AT-OME-PS62.

Command	Description
All#	Routes inputs to corresponding outputs
AUD	Routes source audio to the selected analog output
Blink	Enable/Disable blinking of the front panel POWER LED
CommaWait	Enable/Disable a comma adding a 5 second delay between commands
IPCFG	Displays IP address configuration
IPDHCP	Turns DHCP on / off
InputStatus	Displays the status for each input.
Lock	Locks the buttons on the front panel
Mreset	Sets the unit back to default settings
RepeatCmd	Enables/disables display command repeat
RepCmdTime	Sets how many times a display command is repeated when repeat is enabled
RS232para	Sets the baud rate, data bits, stop bits, and parity for RS-232 on the HDBaseT output
RS232zone	Use to trigger the HDBaseT RX's RS-232 port to send the specified command to the display
SetMono	Set the audio between stereo and mono on the analog outputs
Status	Displays the routing state of the unit
Type	Displays the model of the unit
Unlock	Unlocks the buttons on the front panel
UsbMode	Switch between Follow and Manual USB switching
UsbRoute	Set the USB source device
Version	Displays the current firmware version of the unit
VOUT	Increases / decreases the audio output volume.
VOUTMute	Mutes/Unmutes audio output volume
x?All	Sets the input to all outputs
x?AVx&	Switch a specific input to a specific output

All#

Routes inputs to corresponding outputs. Input 1 to output 1 and input 2 to output 2.

Syntax

```
All#
```

Example

```
All#
```

Feedback

```
x1AVx1, x2AVx2
```

AUD

Routes audio to the selected analog output. HDBaseT and HDMI routes the audio source from HDMI and HDBaseT output.

Syntax

```
AUDX Y
```

Parameter	Description	Range
X	Analog Output	1 or 2
Y	Audio Source	HDBaseT, HDMI, AUX1, AUX2, AUX3

Example

```
AUD1 HDMI  
AUD2 AUX3
```

Feedback

```
AUD1 HDMI  
AUD2 AUX3
```

Blink

Enable/Disable blinking of the front panel POWER LED.

Syntax

```
Blink X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
Blink on
```

Feedback

```
Blink on
```

CommaWait

Enable/Disable a comma adding a 5 second delay between commands. Default is on.

Syntax

```
CommaWait X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
CommaWait on
```

Feedback

```
CommaWait on
```

InputStatus

Displays the status for each input.

Syntax

```
InputStatusX
```

Parameter	Description	Range
X	Value	Input number: 1 or 2, parameter is optional.

Examples

```
InputStatus
InputStatus2
```

Feedback

```
InputStatus 01
InputStatus2 1
```



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

IPCFG

Displays the current network settings for the unit.

Syntax

```
IPCFG
```

Example

```
IPCFG
```

Feedback

```
IP Addr 192.168.11.196
Netmask 255.255.255.0
Gateway 192.168.11.1
telnet Port 23
ssh Port: 22
```

IPDHCP

Turns DHCP on / off. Default is on.

Syntax

```
IPDHCP X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
IPDHCP on
```

Feedback

```
IPDHCP on
```

IPStatic

Sets a static IP address.

Syntax

```
IPStatic X Y Z
```

Parameter	Description	Range
X	IP address	0 to 255 (per byte)
Y	Subnet mask	0 to 255 (per byte)
Z	Gateway (router)	0 to 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 front panel of the unit so no buttons are active.

Syntax

```
Lock
```

Example

```
Lock
```

Feedback

```
Lock
```

Mreset

Sets the unit back to the default settings.


Syntax

```
MReset
```

Example

```
Mreset
```

Feedback

 **NOTE:** There will be no feedback, the unit will power off and then back on.

RepeatCmd

Enables (on) / disables (off) display command repeat.

Syntax

```
RepeatCmd X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
RepeatCmd sta
```

Feedback

```
RepeatCmd on
```


RepCmdTime

Sets how many times a display command is repeated when repeat is enabled.

Syntax

```
RepeatCmd X
```

Parameter	Description	Range
X	Amount	2 - 4, sta

Example

```
RepeatCmd sta
RepeatCmd 3
```

Feedback

```
RepeatCmd 2
RepeatCmd 3
```

RS232para

Sets the baud rate, data bits, parity bit, and stop bits for RS-232 over the HDBaseT output port. Each argument must be separated by a comma; no spaces are permitted. Brackets must be included when typing this command. Use the sta argument, *without brackets and including a space*, to display the current settings.

Syntax

```
RS232para[W,X,Y,Z]
```

Parameter	Description	Range
W	Baud rate	2400, 9600, 19200, 38400, 56000, 57600, 115200
X	Data bits	7, 8
Y	Parity bit	None, Odd, Even
Z	Stop bits	1, 2

Example

```
RS232para[115200,8,0,1]
RS232para sta
```

Feedback

```
RS232para[115200,8,0,1]
RS232para[115200,8,0,1]
```

RS232zone

Use to trigger the HDBaseT RX's RS-232 port 1 to send the specified command to the display.

Syntax

```
RS232zoneX[Y]
```

Parameter	Description	Range
X	HDBaseT Port	1 (Input 1), 2 (Input 2), 3 (Output)
Y	Command	String

Example

```
RS232zone2[VOL23]
```

Feedback

```
RS232zone2[VOL23]
```

SetMono

Set the audio between stereo (off) and mono (on) on the analog outputs.

Syntax

```
SetMonoX Y
```

Parameter	Description	Range
X	Analog Output	1 - 2
Y	Value	on, off, sta

Example

```
SetMono1 off
SetMono2 sta
```

Feedback

```
SetMono1 off
SetMono2 on
```

Status

Displays the current route status.

Syntax

```
Status
```

Example

```
Status
```

Feedback

```
x3Vx1
```

Type

Brings up the model information.

Syntax

```
Type
```

Example

```
Type
```

Feedback

```
AT-OME-PS62
```

Unlock

Unlocks the front panel of the unit, enabling the buttons again.

Syntax

```
Unlock
```

Example

```
Unlock
```

Feedback

```
Unlock
```

UsbMode

Switch between Follow USB (0), Manual (1), and Follow Video (2) USB switching.

Syntax

```
UsbMode X
```

Parameter	Description	Range
X	Mode	0 - 2

Example

```
UsbMode 0
```

Feedback

```
UsbMode 0
```

UsbRoute

Set the USB source device. Sets between local USB ports 1 (1) and 2 (2), HDBaseT output (3), USB-C (4), or HDBaseT input port 1 (5) and 2 (6).

Syntax

```
UsbRoute X
```

Parameter	Description	Range
X	Source	1-6

Example

```
UsbRoute 3
```

Feedback

```
UsbRoute 3
```

Version

Brings up the current firmware version.

Syntax

```
Version
```

Example

```
Version
```

Feedback

```
1.0.00
```

VOUT

Increases / decreases the audio output volume on the specified zone. In addition to specifying an integer value, the + and - arguments can be used to increment or decrement the volume level by 1. To display the current value, specify the sta argument.

Syntax

```
VOUTX Y
```

Parameter	Description	Range
X	Zone	1 (HDBaseT OUT) 2 (HDMI OUT) 3 (Analog OUT 1) 4 (Analog OUT 2)
Y	Level	+, -, -90 ... 10, sta

Example

```
VOUT1 4  
VOUT1 +
```

Feedback

```
VOUT1 4  
VOUT1 5
```

VOUTMute

Mutes/unmutes the specified audio zone. The first parameter specifies the output: 1 = zone 1; 2 = zone 2; 3 = Aux 1; 4 = Aux 2. No space should exist between the first parameter and the command. The second parameter enables or disables audio muting for the output: on = enabling muting, off = disable muting. Use the sta argument to return the current state.

Syntax

```
VOUTMuteX Y
```

Parameter	Description	Range
X	Zone	1 - 4
Y	Value	on, off, sta

Example

```
VOUTMute1 sta
```

Feedback

```
VOUTMute1 on
```

x?All

Sets the input to all outputs.

Syntax

```
x?All
```

Parameter	Description	Range
?	Source	1-6

Example

```
x3All
```

Feedback

```
x3AVx1, x3AVx2
```

x?AVx&

Switch audio and video input to output when in Matrix Mode.

Syntax

x?AVx&

Parameter	Description	Range
?	Input	1 - 6
&	Output	1 - 2

Example

x2AVx1
 x5AVx2
 x3AVx1, x2

Feedback

x2AVx1
 x5AVx2
 x3AVx1, x3AVx2

