AT-OME-SW21-TX-WPC

Omega™ 2x1 AV Switcher HDBT Wall Plate Transmitter

API Command Reference

October 2026

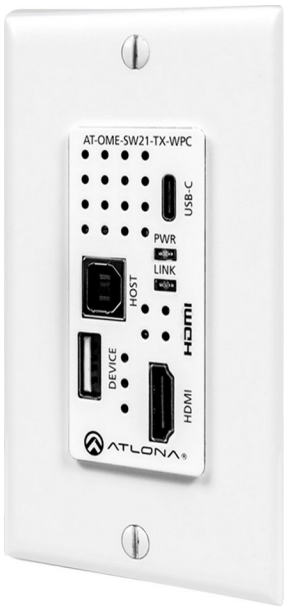


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Version Information

This document lists the commands for controlling the AT-OME-SW21-TX-WPC over Telnet and TCP. Its version history follows the original command reference.

Version	Date	Notes
2	Mar 2025	Updated for firmware version 1.0.2. Added OutHdmi5vKeep command. Added UsbVbusControl command. Various other fixes.
HR 1.0	October 2026	Converted to the Hall Research document format. No command changes.
HR 1.1	October 2026	Display control corrected: no RS-232 port on the wall plate; the display is controlled through the HDBaseT receiver over IP. Command descriptions and parameter tables corrected from the original command reference.

Sales & Customer Support

Item	Details
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Support Hours	Monday – Friday, 8:00 a.m. – 6:00 p.m. (CST)
Website	https://www.hallresearch.com
Product Page (AT-OME-SW21-TX-WPC)	https://www.hallresearch.com/product/AT-OME-SW21-TX-WPC

IMPORTANT: Visit hallresearch.com/product/AT-OME-SW21-TX-WPC for the latest firmware updates and documentation.

Introduction

General

This document provides an alphabetical list of the commands available for the AT-OME-SW21-TX-WPC. Commands are case-sensitive. If a command fails or is entered incorrectly, the feedback is “Command FAILED”. Commands can be sent using Telnet or TCP. Allow a 500 millisecond delay between commands sent to the unit. The default Telnet port is 23. TCP ports are 9000 and 9001.

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 the RS-232 port of the connected HDBaseT receiver (over HDBaseT) using a direct TCP socket connection. No additional payload is required: all data sent to TCP port 9001 is sent bit-for-bit to the receiver’s 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 RS-232 port

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 192.168.1.100:9001 and send the command string:

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

- The projector responds on the same socket connection with:

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

Display Control

The AT-OME-SW21-TX-WPC has no RS-232 port. It controls the display through the connected HDBaseT receiver, over IP.

IP communications are carried over the HDBaseT OUT port, so the AT-OME-SW21-TX-WPC must be connected to an HDBaseT receiver, such as the AT-OME-EX-RX, and the receiver must be connected to the network using its LAN port.

To send commands to the display, open a TCP socket to the IP address of the AT-OME-SW21-TX-WPC on port 9001 (see Ports). The receiver sends the data to the display from its RS-232 port. The RS232zone command can also be used, but it is intended for legacy use.

The RS-232 settings of the receiver's port must match the display. They are set on the RS-232 page of the built-in web interface. Automatic display control (Control Type: RS-232, IP, or CEC) is also set in the web interface; refer to the User Manual.

Command Quick Reference

Select a command name to go to its full description.

Command	Description
AutoSW	Enables or disables auto switching between input ports
CommaWait	The comma is frequently used to separate multiple commands on the command line
DispBtn	This command emulates pressing the DISPLAY button on the front panel
Display	This command powers-on or powers-off the connected display
HDCPSet	Set the HDCP reporting mode of the HDMI input port
HDMIAud	Enables or disables the audio output on the HDMI port
help	Displays the list of available commands
InputStatus	Displays the status of the inputs as either a 0 or 1
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
Mreset	Resets the unit to factory-default settings
OutHdmi5vKeep	Sets the state of the +5V pin on the HDMI OUT port
RS232zone	Sends commands to the HDBaseT device
Status	Displays which input is routed to which output
System	Displays information about the AT-OME-SW21-TX-WPC
Type	Displays the model information of the unit
USBHostLogic	Sets the USB mode for the AT-OME-SW21-TX-WPC
UsbRoute	Sets the routing state of the USB Host port
UsbVbusControl	Sets the state of the USB hub ports
Version	Displays the current firmware version of the unit
xYAVx1	Switches the specified input to the specified output

Commands

AutoSW

Enables or disables auto switching between input ports. Use the sta argument to display the current setting.

Syntax

```
AutoSW X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
AutoSW on
```

Feedback

```
AutoSW on
```

CommaWait

The comma is frequently used to separate multiple commands on the command line. However, the client may require time to execute a specific command, before the next command is executed. Enabling this command will assign a five second delay to any comma delimiters, found within the command line.

Syntax

```
CommaWait X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
CommaWait on
```

Feedback

```
CommaWait 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
```

Display

This command powers-on or powers-off the connected display.

Syntax

```
Display X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
Display on
```

Feedback

```
Display on
```

HDCPSet

Set the HDCP reporting mode of the HDMI input port. Some computers will send HDCP content if an HDCP-compliant display is detected. on = reports to the source device that the display (sink) is HDCP-compliant; off = reports to the source device that the display (sink) is not HDCP-compliant (HDCP content will not be sent). Setting this value to off does not decrypt HDCP content. Specify the sta argument to return the current setting.

Syntax

```
HDCPSetX Y
```

Parameter	Description	Range
X	Input (1: HDMI, 2: USB-C)	1, 2
Y	State	on, off

Example

```
HDCPSet1 off
```

Feedback

```
HDCPSet1 off
```

HDMIAud

Enables or disables the audio output on the HDMI port. on = enables HDMI audio output; off = disables HDMI audio output. Use the sta argument to return the current HDMI audio output state

Syntax

```
HDMIAud
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
HDMIAud off
```

Feedback

```
HDMIAud off
```

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

```
help
IPCFG
IPDHCP
IPStatic
Version
…
…
…
```

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 01
```

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 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 octet)
Y	Subnet mask	0 ... 255 (per octet)
Z	Gateway (router)	0 ... 255 (per octet)

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
```

Mreset

Resets the unit to factory-default settings.

Syntax

```
Mreset
```

This command does not require any parameters.

Example

```
Mreset
```

Feedback

```
Mreset
```

OutHdmi5vKeep

Sets the state of the +5V pin on the HDMI OUT port. Specify the on argument to force the +5V pin to the “on” state. Use the off argument to allow the +5V pin to toggle based on the presence of an input video signal. The sta argument will return the current setting.

Syntax

```
OutHdmi5vKeep
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
OutHdmi5vKeep sta
```

Feedback

```
OutHdmi5vKeep 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. The command line must not contain any spaces. Note that this command is deprecated and intended for legacy use. It is recommended to use the TCP socket functionality. Refer to Ports (page 3) for more information.

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 xYAVx1 command for more information.

Syntax

```
Status
```

This command does not require any parameters.

Example

```
Status
```

Feedback

```
x1AVx1
```

System

Displays information about the AT-OME-SW21-TX-WPC. The sta argument must be specified.

Syntax

```
System X
```

Parameter	Description	Range
X	Constant	sta

Example

```
System sta
```

Feedback

```
Model: AT-OME-SW21-TX-WPC
MAC Addr: b8:98:b0:00:03:24
Address Type: DHCP
IP Addr: 10.20.100.196
Netmask: 255.255.255.0
Gateway: 10.20.100.2
Http Port: 80
Telnet Port: 23
Firmware: 1.0
On/Up Time <dd HH:mm:ss>: 0 1:29:15
Hostname: SW21-WPC-000324
```

Type

Displays the model information of the unit.

Syntax

```
Type
```

This command does not require any parameters.

Example

```
Type
```

Feedback

```
AT-OME-SW21-TX-WPC
```

USBHostLogic

Sets the USB mode for the AT-OME-SW21-TX-WPC. Use the sta argument to display the current setting.

Syntax

```
USBHostLogicX Y
```

Parameter	Description	Range
X	USB Port	1
Y	Mode	follow-video, follow-usb, manual, sta

Example

```
USBHostLogic1 follow-video
```

Feedback

```
USBHostLogic1 follow-video
```

UsbRoute

Sets the routing state of the USB Host port. The second argument controls which port is used: 1 = route to USB port; 2 = route to USB-C port; 3 = route to remote USB port. Use the sta argument to display the current setting.

Syntax

```
UsbRouteX Y
```

Parameter	Description	Range
X	USB Port	1
Y	Routing	1 ... 3

Example

```
UsbRoute1 2
```

Feedback

```
UsbHost1 2
```

UsbVbusControl

Sets the state of the USB hub ports. Specify the on argument to keep the USB power on the hub ports always “on”, which can be useful in USB charging scenarios. Use the off argument to allow the USB hub ports to toggle on and off based on the presence of a USB host. The sta argument returns the current setting.

Syntax

```
UsbVbusControl X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
UsbRoute1 2
```

Feedback

```
UsbHost1 2
```

Version

Displays the current firmware version of the unit.

Syntax

```
Version X
```

Parameter	Description	Range
X	Chip	mcu, vstx, vsrx

Example

```
Version MCU
```

Feedback

```
1.0.22
```

xYAVx1

Switches the specified input to the specified output. The first argument references the input: 1 = HDMI, 2 = USB-C. For example, to display the USB-C input on the output, use: x2AVx1.

Syntax

```
xYAVx1
```

Parameter	Description	Range
Y	Input	1, 2

Example

```
x2AVx1
```

Feedback

```
x2AVx1
```