AT-OME-SR21

Omega™ 2x1 AV Switcher HDBaseT Receiver w/ Scaler

API Command Reference

October 2026



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Version Information

This document lists the commands for controlling the AT-OME-SR21 over RS-232, Telnet, SSH, and TCP. Its version history follows the original command reference.

Version	Date	Notes
1	Feb 2020	Release
2	July 2020	Added TCP Proxy information and reboot command
3	Jan 2021	Added RS-232 information
4	June 2025	Added HDMI 5V and USBVBus commands
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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Website	https://www.hallresearch.com
Product Page (AT-OME-SR21)	https://www.hallresearch.com/product/AT-OME-SR21

IMPORTANT: Visit hallresearch.com/product/AT-OME-SR21 for the latest firmware updates and documentation.

Introduction

General

This document provides an alphabetical list of the commands available for the AT-OME-SR21. 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 and the SSH port is 22. 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. 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	Local RS-232 port 1

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
```

RS-232

A 5-pin captive screw connector is included for two RS-232 ports: port 1 controls the display and port 2 is for unit control. The two ports share the ground pin. Wire each as TX (transmit), RX (receive), and GND (ground) according to the RS-232 cable.

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
Port 1 (display control)	9600 baud, 8 data bits, no parity, 1 stop bit
Port 2 (unit control)	115200 baud, 8 data bits, no parity, 1 stop bit

DISPLAY Button Command and LINK LED

When the DispBtn command is sent over RS-232, Telnet, or TCP, the LINK LED shows the current display status: DispBtn on turns the LINK LED on (yellow) to show that the on command was triggered and sent to the display; DispBtn off turns the LINK LED off.

Command Quick Reference

Select a command name to go to its full description.

Command	Description
Blink	Enable/Disable blinking of the front panel POWER LED
CommaWait	Enable/Disable a comma adding a 5 second delay between commands
DispBtn	Sets the command triggered through display control (set in the webGUI)
HDMIAUD	Enable/disable the HDMI audio output
InputStatus	Displays the status for each input
IPCFG	Displays the current network settings for the unit
IPDHCP	Turns DHCP on / off
IPStatic	Sets a static IP address
Lock	Locks the front panel of the unit so no buttons are active
LRAUD	Turns on/off analog audio output
Mreset	Sets the unit back to the default settings
OutHdmi5vKeep	This option sets the +5V pin on the HDMI OUT port to the desired setting
Reboot	Restarts the unit
RelayAct	Opens and closes the relay ports
RS232zone	Use to trigger the SR21's RS-232 port 1 to send the specified command to the display
Status	Displays the current route status
Type	Brings up the model information
Unlock	Unlocks the front panel of the unit, enabling the buttons again
USBHostLogic	Sets the USB mode for the AT-OME-SR21
USBHostRoute	Sets the routing state of the USB host
UsbVbusControl	This feature provides the ability to toggle the USB Vbus
Version	Brings up the current firmware version
VOUT	Adjusts the analog audio volume level
VOUTMute	Mutes/unmutes all the output audio channels

Commands

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
```

DispBtn

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

Syntax

```
DispBtn X
```

Parameter	Description	Range
X	Command	on, off, vol+, vol-, mute

Example

```
DispBtn on
```

Feedback

```
DispBtn on
```

HDMIAUD

Enable/disable the HDMI audio output. Default is on.

Syntax

```
HDMIAUD X
```

Parameter	Description	Range
X	Setting	on, off, sta

Example

```
HDMIAUD sta
```

Feedback

```
HDMIAUD on
```

InputStatus

Displays the status for each input.

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

Syntax

```
InputStatusX
```

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

Example

```
InputStatus
InputStatus2
```

Feedback

```
InputStatus 01
InputStatus2 1
```

IPCFG

Displays the current network settings for the unit.

Syntax

```
IPCFG
```

This command does not require any parameters.

Example

```
IPCFG
```

Feedback

```
IP Addr 192.168.11.196
Netmask 255.255.255.0
Gateway 192.168.11.254
IP Port 23
```

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
```

This command does not require any parameters.

Example

```
Lock
```

Feedback

```
Lock
```

LRAUD

Turns on/off analog audio output. Default is on.

Syntax

```
LRAUD X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
LRAUD sta
```

Feedback

```
LRAUD on
```

Mreset

Sets the unit back to the 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
```

Reboot

Restarts the unit..

Syntax

```
Reboot
```

This command does not require any parameters.

Example

```
Reboot
```

Feedback

```
Reboot
```

RelayAct

Opens and closes the relay ports.

Syntax

```
RelayActX Y
```

Parameter	Description	Range
X	Port number	1 or 2
Y	Value	open, close, sta

Example

```
RelayAct1 sta
RelayAct2 open
```

Feedback

```
RelayAct1 close
RelayAct2 open
```

RS232zone

Use to trigger the SR21's RS-232 port 1 to send the specified command to the display.

Syntax

```
RS232zone[X]
```

Parameter	Description	Range
X	Command	String

Example

```
RS232zone[VOL23]
```

Feedback

```
RS232zone[VOL23]
```

Status

Displays the current route status.

Syntax

```
Status
```

This command does not require any parameters.

Example

```
Status
```

Feedback

```
x3Vx1
```

Type

Brings up the model information.

Syntax

```
Type
```

This command does not require any parameters.

Example

```
Type
```

Feedback

```
AT-OME-SR21
```

Unlock

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

Syntax

```
Unlock
```

This command does not require any parameters.

Example

```
Unlock
```

Feedback

```
Unlock
```

USBHostLogic

Sets the USB mode for the AT-OME-SR21. 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. Local for the USB port on the unit and remote for the USB port connected over HDBaseT. Use the sta argument to display the current setting.

Syntax

```
USBHostRoute X
```

Parameter	Description	Range
X	Port	local, remote

Example

```
USBHostRoute local
```

Feedback

```
USBHostRoute local
```

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

Brings up the current firmware version.

Syntax

```
Version
```

This command does not require any parameters.

Example

```
Version
```

Feedback

```
1.0.00
```

VOUT

Adjusts the analog audio volume level.

Syntax

```
VOUT X
```

Parameter	Description	Range
X	Parameter	+ / - : Increase or decrease volume by increments of 1 # : Input a value between -80 and 0 sta : displays the current status of the volume

Example

```
VOUT sta
VOUT +
VOUT -50
VOUT -
```

Feedback

```
VOUT -30
VOUT -29
VOUT -50
VOUT -51
```

VOUTMute

Mutes/unmutes all the output audio channels. Default is unmuted (off).

Syntax

```
VOUTMuteX Y
x?AVx1
```

Parameter	Description	Range
X	Channel	1 - 2
Y	Value	on, off, sta
?	Input	1 - 2

Example

```
VOUTMute1 sta
x?AVx&
Switch audio and video input to output.
x2AVx1
```

Feedback

```
VOUTMute1 on
x2AVx1
```