ATLONA
a PANDUIT company

OMEGA™

4K/UHD Scaler

for HDBaseT and HDMI with USB

Application Programming Interface

AT-OME-SR21 | API

Version Information

Version	Release Date	Notes
1	Feb 2020	Release
2	July 2020	Added TCP Proxy information and reboot command
3	Jan 2021	Added RS-232 information

Introduction

General

This document provides an alphabetical list of commands available for AT-OME-SR21. 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, 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 input
9002	Local RS-232 port 1

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
   ```

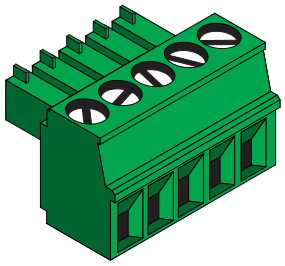
2. The projector will respond with the following, using the same socket connection:

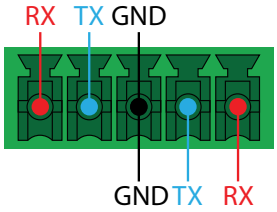
   ```
   $1POWR=OK\x0D
   ```

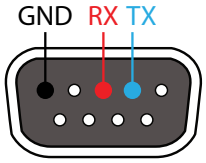
RS-232

A 5-pin captive screw connector has been included for RS-232.

NOTE: Port 1 will control the display and port 2 is for unit control.

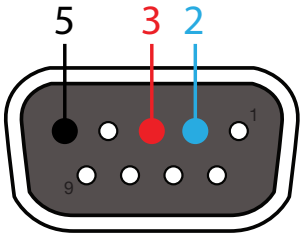






Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and ⏚ (Ground). Ground will be shared between port 1 and port 2.

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 ports are:

Port 1 (display control) - 9600, 8-bit, None, 1
Port 2 (unit control) - 115200, 8-bit, None, 1

Commands

The following tables provide an alphabetical list of commands available on the AT-OME-SR21.

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 IP address configuration
IPDHCP	Turns DHCP on / off
IPStatic	Sets a static IP address
Lock	Locks the buttons on the front panel
LRAUD	Turns on/off analog audio output
Mreset	Sets the unit back to default settings
Reboot	Restarts the unit
RelayActX Y	Opens and closes the relay ports
RS232zone	Use to trigger the SR21's RS-232 port to send the specified command to the display
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
VOUT	Adjusts the analog audio volume level
VOUTMute	Mutes/Unmutes audio output volume
x?AVx&	Switch a specific input to a specific output

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.

Parameter	Description	Range
X	Setting	on, off, sta

Example
HDMIAUD sta

Feedback
HDMIAUD on

InputStatus

Displays the status for each input.

Syntax
InputStatus**X**

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 192.168.11.254
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

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

Example
Mreset

Feedback
Mreset

Reboot

Restarts the unit..

Syntax
Reboot

Example
Reboot

Feedback
Reboot

RelayAct

Opens and closes the relay ports.

Syntax
RelayAct**X 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

Example
Status

Feedback
x3Vx1

Type

Brings up the model information.

Syntax
Type

Example
Type

Feedback
AT-OME-SR21

Unlock

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

Syntax
Unlock

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

Brings up the current firmware version.

Syntax
Version

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
VOUTMute**X Y**

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

Example
VOUTMute1 sta

Feedback
VOUTMute1 on

x?AVx&

Switch audio and video input to output.

Syntax
x**?**AVx1

Parameter	Description	Range
?	Input	1 - 2

Example
x2AVx1

Feedback
x2AVx1