ATLONA
a PANDUIT company

OMEGA™

Display Controller

Application Programming Interface
1.0.16

AT-DISP-CTRL

Atlona Manuals
Control & Management

Version Information

Version	Release Date	Notes
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Introduction

General

This document provides an alphabetical list of commands available for the AT-DISP-CTRL. 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 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 local RS-232 ports using a direct TCP socket connection. 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	Local RS-232 port

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

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
   ```

Commands

Command	Description
APwrOffTime	Sets the power-off time interval
Blink	Enables or disables blinking of the POWER button on the front panel
Broadcast	Enables or disables broadcast mode
CliIPAddr	Sets the IP address of the Telnet client
CliMode	Sets the login mode of the Telnet client
CliPass	Set the password for the Telnet client
CliPort	Sets the listening port of the Telnet client
CliUser	Sets the username for the Telnet client
CSpara	Sets the baud rate, data bits, parity bit, and stop bits for the serial port
CtlType	Sets the control protocol used to communicate with the display device
DispAutoPwr	Enables or disables automatic powering of the display
EDIDMSet	Assigns the specified EDID preset to the HDMI OUT port
EDIDOut	Saves the downstream EDID to the specified memory location
HDCPSet	Sets the HDCP reporting mode for the specified input
help	Displays the available list of commands
IPCFG	Displays the current network settings for the unit
IPDHCP	Enables or disables DHCP mode on the unit
IPLogin	Enables or disables login credentials when starting a Telnet session
IPPort	Sets the Telnet listening port for the unit
IPStatic	Sets the static IP address, subnet mask, and gateway for the unit
IPTimeout	Specifies the time interval of inactivity before the Telnet session is closed
Mreset	Resets the unit to factory-default settings
ProjSWMode	Sets the time interval before the “display on” command is sent
ProjWarmUpT	Sets the display warm-up interval, in seconds
RepCmdTime	Sets the number of times a command is sent
RepeatCmd	Enables or disabled the RepCmdTime feature
RHostName	Displays the hostname of the unit
SetCmd	Assigns an RS-232 or IP command to the specified button on the front panel
SHostName	Sets the hostname of the unit
System	Displays information about the unit
TrigCEC	Triggers the specified command over CEC
TrigIP	Triggers the specified command over IP
TrigRS	Triggers the specified command over RS-232
Type	Displays the model of the transmitter
Version	Displays the current firmware version of the unit

APwrOffTime

Set the time interval, in seconds, before the command to power-off the display is sent, once an A/V signal is no longer detected. Use the sta argument to display the current setting.

Syntax
APwrOffTime X

Parameter	Description	Range
X	Time interval (seconds)	15 ... 3600, sta

Example
APwrOffTime 120

Feedback
APwrOffTime 120

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	State	on, off, sta

Example
Blink on

Feedback
Blink on

Broadcast

Enables or disables broadcast mode. When set to on, any state change to the AT-DISP-CTRL will be reflected through RS-232, Telnet, and TCP port 9000. State changes can be caused by modification of the webUI, physical connection/disconnection of source/sink and additional Telnet/TCP clients making changes. on = broadcast enabled; off = broadcast disabled; sta = displays the current setting. The default setting is on.

Syntax
Broadcast X

Parameter	Description	Range
X	State	on, off, sta

Example
Broadcast on

Feedback
Broadcast on

CliIPAddr

Sets the IP address of the controlled device. The IP address must be specified in dot-decimal notation. Use the sta argument to display the IP address of the connected device.

Syntax
CliIPAddr X

Parameter	Description	Range
X	IP address	0 ... 255 (per byte), sta

Example
CliIPAddr 192.168.1.61

Feedback
CliIPAddr 192.168.1.61

CliMode

Sets the login mode of the controlled device. login = requires login credentials, non-login = no login credentials required. Use the sta argument to display the current setting.

Syntax
CliMode X

Parameter	Description	Range
X	Mode	login, non-login, sta

Example
CliMode login

Feedback
CliMode login

CliPass

Sets the password for the controlled device. Execute the CliPass command without arguments to display the current password. The default password is Atlona.

Syntax
CliPass X

Parameter	Description	Range
X	Password	20 characters (max.)

Example
CliPass R3ind33r

Feedback
CliPass R3ind33r

CliPort

Sets the listening port for the controlled device. Use the sta argument to display the current listening port. The default port is 23.

Syntax
CliPort X

Parameter	Description	Range
X	Port	1 ... 65535, sta

Example
CliPort 50

Feedback
CliPort 50

CliUser

Sets the username for the controlled device. Execute the CliUser command without arguments to display the current username.

Syntax
CliUser X

Parameter	Description	Range
X	Username	20 characters (max.)

Example
CliUser BigBoss

Feedback
CliUser BigBoss

CSpara

Sets the baud rate, data bits, parity bit, and stop bits for the console serial port. Each argument must be separated by a comma; no spaces are permitted. Brackets must be used when executing this command. Use the sta argument, with no brackets and a space between the argument and the command, to display the current serial port settings.

Syntax
CSpara[W,X,Y,Z]

Parameter	Description	Range
W	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200
X	Data bits	7, 8
Y	Parity bit	0 (None), 1 (Odd), 2 (Even)
Z	Stop bits	1, 2

Example
CSpara[115200,8,0,1]
CSpara sta

Feedback
CSpara[115200,8,0,1]
CSpara [115200,8,0,1]

CtlType

Sets the control protocol used to communicate with the display device. Use the sta argument to display the current setting.

Syntax
CtlType X

Parameter	Description	Range
X	Protocol	rs-232, ip, cec, ir, sta

Example
CtlType ip

Feedback
CtlType ip

DispAutoPwr

Enables or disables automatic powering-on or powering-off of the display, when connected to the AT-DISP-CTRL. Use the sta argument to display the current setting.

Syntax
DispAutoPwr X

Parameter	Description	Range
X	State	on, off, sta

Example
DispAutoPwr on

Feedback
DispAutoPwr on

EDIDMSet

Assigns the specified EDID to the HDMI input. The EDID can be either one of 10 internal EDID presets or a custom EDID that can be stored in one of the two memory locations. A brief description of each EDID preset is listed in the table below. default is the default EDID; int1 through int10 are EDID presets; save1 and save2 are memory locations where custom EDID data can be stored.

Syntax
EDIDMSet X

Parameter	Description	Range
X	EDID preset	default, save, int, sta

Example
EDIDMSet int2

Feedback
EDIDMSet int2

EDID	Description
default	Default EDID
int1	ATL 1080p 3D 2CH
int2	ATL 1080p 3D DD
int3	ATL 1080p 3D MCH
int4	ATL 1080p 2CH
int5	ATL 4K60 420 2CH
int6	ATL 4K60 420 MCH
int7	ATL 4K60 420 HDR 2CH
int8	ATL 4K60 420 HDR MCH
int9	ATL 4K60 444 2CH
int10	ATL 4K60 444 MCH
save1	Memory location 1 for storing an EDID
save2	Memory location 2 for storing an EDID

EDIDOut

Copies the display/sink EDID to the specified memory location.

Syntax
EDIDOut X

Parameter	Description	Range
X	Memory location	mem1, mem2

Example
EDIDOut mem1

Feedback
EDIDOut mem1

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. Use the sta argument to display the current setting.

Syntax
HDCPSet X

Parameter	Description	Range
X	State	on, off, sta

Example
HDCPSet on

Feedback
HDCPSet 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
APwrOffTime
AutoPwrMode
Blink
Broadcast
CliIPAddr
CliMode
...
...

IPCFG

Displays the current network settings for the AT-DISP-CTRL.

Syntax
IPCFG

This command does not require any parameters

Example
IPCFG

Feedback
IP Addr 192.168.11.176
Netmask 255.255.255.0
Gateway 192.168.11.1
IP Port 23

IPDHCP

Enables or disables DHCP mode on the AT-DISP-CTRL. on = DHCP mode ON; off = DHCP mode OFF; sta = displays the current setting. If this feature is disabled, then a static IP address must be specified. The default setting is on.

Syntax
IPDHCP X

Parameter	Description	Range
X	State	on, off, sta

Example
IPDHCP on

Feedback
IPDHCP on

IPLogin

Enables or disables the use of login credentials when starting a Telnet or TCP port 9000 session on the AT-DISP-CTRL. If this feature is set to on, then the AT-DISP-CTRL will prompt for both the username and password. Use the same credentials as the web server. on = login credentials required; off = no login required. Use the sta argument to display the current setting. The default setting is on.

Syntax
IPLogin X

Parameter	Description	Range
X	State	on, off, sta

Example
IPLogin off

Feedback
IPLogin off

IPPort

Sets the TCP/IP listening port for the AT-DISP-CTRL. It is not recommended to use the following ports:

80 (HTTP)
443 (HTTPS)
22 (SSH)
9000 - 9100 (TCP socket ports)

Syntax
IPPort X

Parameter	Description	Range
X	Port	0 ... 65535, sta

Example
IPPort 230

Feedback
IPPort 230

IPStatic

Sets the static IP address, subnet mask, and gateway (router) address of the AT-DISP-CTRL. Before using this command, DHCP must be disabled on the AT-DISP-CTRL. 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 of the AT-DISP-CTRL 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

IPTimeout

Specifies the time interval of inactivity before the TCP/IP session is terminated. When terminated, both the Telnet and web server session will be closed. The default setting is 300 seconds.

Syntax
IPTimeout X

Parameter	Description	Range
X	Time interval (seconds)	1 ... 3600

Example
IPTimeout 300

Feedback
IPTimeout 300

Mreset

Resets the AT-DISP-CTRL to factory-default settings.

Syntax
MReset

This command does not require any parameters

Example
Mreset

Feedback
Mreset

ProjSWMode

Sets the projector lamp cool-down timer, in seconds. This value specifies the time interval that must elapse, after the display control “off” command is sent, before the display “power on” command can be sent. This command is used to prevent the projector from missing a “power on” command while the lamps are cooling. Use the sta argument to display the current setting.

Syntax
ProjSWMode X

Parameter	Description	Range
X	Time interval (seconds)	10 ... 300, sta

Example
ProjSWMode 120

Feedback
ProjSWMode 120

ProjWarmUpT

Sets the projector lamp warm-up timer, in seconds. During the warm-up interval, the AT-DISP-CTRL will not start the auto power-off timer. This value specifies the time interval that must elapse, after the display control “on” command is sent, before the display “power off” command can be sent. This command is used to prevent a “power off” command from being sent while the lamps are warming up. Use the sta argument to display the current setting.

Syntax
ProjWarmUpT X

Parameter	Description	Range
X	Time interval (seconds)	10 ... 300, sta

Example
ProjWarmUpT 120

Feedback
ProjSWMode 120

RepCmdTime

Sets the number of times 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, 3, 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

RHostName

Displays the hostname of the unit. Execute the SHostName command to set the hostname.

Syntax
RHostName

This command does not require any parameters

Example
RHostName

Feedback
RHostName DISPCTRL-000227

SetCmd

Assigns the Command parameter to the specified command string, executing the desired function on the display (sink) device. For example, “SetCmd on[foo]” will assign the on command to “foo”. Consult the documentation for the display device for a listing of valid command strings.

Syntax
SetCmd X[Y]

Parameter	Description	Range
X	Command	on, off, vol+, vol-, mute, mute_on, mute_off
Y	Command string	String

Example
SetCmd on[PWRON]

Feedback
SetCmd on[PWRON]

SHostName

Sets the hostname of the unit. The hostname can be changed to easily identify the unit within the Atlona Management System (AMS) or a network. If using a custom hostname, it must meet the hostname standards defined here: https://tools.ietf.org/html/rfc1123

Syntax
SHostName X

Parameter	Description	Range
X	Name	String (maximum 15 characters)

Example
SHostName DISPCtrl_ConfR

Feedback
SHostName DISPCtrl_ConfR

System

Displays information about the AT-DISP-CTRL. The sta argument must be specified.

Syntax
System X

Parameter	Description	Range
X	Constant	sta

Example
Status sta

Feedback
Model: AT-DISP-CTRL
MAC Addr: b8-98-b0-00-02-27
Address Type: DHCP
IP Addr: 10.20.20.40
Netmask: 255.255.255.0
Gateway: 10.20.20.1
HTTP Port: 80
Telnet Port: 23
Firmware: 1.0.00
On/Up Time <dd HH:mm:ss>: 00 22:26:15
Hostname: DISPCTRL-000227

TrigCEC

Sends the specified command to the display using the CEC protocol.

Syntax
TrigCEC X

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

Example
TrigCEC on

Feedback
TrigCEC on

TrigIP

Sends the specified command to the display using IP.

Syntax
TrigIP X

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

Example
TrigIP on

Feedback
TrigIP on

TrigRS

Sends the specified command to the display using RS-232.

Syntax
TrigRS X

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

Example
TrigRS on

Feedback
TrigRS on

Type

Displays the SKU of the AT-DISP-CTRL.

Syntax
Type

This command does not require any parameters

Example
Type

Feedback
AT-DISP-CTRL

Version

Displays the current firmware version of the unit.

Syntax
Version

This command does not require any parameters

Example
Version

Feedback
1.0.00