



4K / UHD Four-Input HDMI Switcher with Auto-Switching and Return Optical Audio

Application Programming Interface

Version Information

Version	Release Date	Notes
1	Aug 2018	Initial release
2	Jul 2019	Firmware 1.2.10 added "System sta" command.

Commands

The following tables provide an alphabetical list of commands available for both the AT-JUNO-451 and AT-JUNO-451-HDBT. Commands are case-sensitive. If the command fails or is entered incorrectly, then the feedback is “Command FAILED”.



IMPORTANT: Each command is terminated with a carriage-return (0x0d) and the feedback is terminated with a carriage-return and line-feed (0x0a).

Command	Description
AudioSRC	Sets the audio source for the OPTICAL port
AutoSW	Sets the auto-switching mode
Blink	Enables or disables blinking of the POWER LED indicator on the front panel
Broadcast	Enables or disables broadcast mode
CSpara	Sets the baud rate, data bits, parity bit, and stop bits for the serial port
EDIDCopy	Saves the downstream EDID to the specified internal memory location on the unit
EDIDMSet	Assigns an EDID to the specified input.
HDCPSet	Set the HDCP reporting mode of the specified HDMI input port
HDMIAud	Enables or disables audio on the HDMI output
help	Displays the list of available commands
InputBroadcast	Invokes the InputStatus command when enabled
InputStatus	Displays the state of each input
IPAddUser	Adds a user for Telnet and webGUI access
IPCFG	Displays the current network settings for the unit
IPDelUser	Deletes the specified user
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
IPQuit	Closes the current Telnet session
IPStatic	Sets the static IP address, subnet mask, and gateway for the unit
IPTimeout	Specifies the time interval of inactivity before a Telnet session is closed
IROFF	Disables the IR receiver on the unit
IRON	Enables the IR receiver on the unit
Lock	Locks the buttons on the front panel
Mreset	Resets the unit to factory-default settings

Command	Description
PWOFF	Execute this command to power-off the unit
PWON	Execute this command to power-on the unit
PWSTA	Displays the power state of the unit
RAtIMac	Displays the MAC address of the unit
Status	Displays the routing state of the unit
System	Displays information about the system status
Toslink	Enables or disables the OPTICAL port on the back panel
Type	Displays the model of the unit
Unlock	Unlocks the buttons on the front panel
Version	Displays the current firmware version of the unit
x1AVx1	Routes the specified input to the output

AudioSRC

Sets the audio source for the **OPTICAL** port on the AT-JUNO-451. HDMI audio is de-embedded and heard on the specified source. Use the sta argument to display the current setting

Syntax

```
AudioSRC X
```

Parameter	Description	Range
X	Source	SPDIF, ARC, sta

Example

```
AudioSRC SPDIF
```

Feedback

```
AudioSRC SPDIF
```

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	Value	on, off, sta

Example

```
AutoSW on
```

Feedback

```
AutoSW on
```

Blink

Enables or disables blinking of the **POWER** LED indicator on the front panel. When set to on, the **POWER** LED indicator button will flash, alternating between blue and red, and can be used to physically identify the unit on a network. The **POWER** LED indicator will flash until the Blink off command is executed. on = enables blinking; off = disables blinking. Use the sta argument to display the current setting. The default setting is off.

Syntax

```
Blink X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
Blink on
```

Feedback

```
Blink on
```

Broadcast

Enables or disables broadcast mode. By default, broadcast mode is set to ON. When set to ON, any system changes will be broadcast to the web GUI will also be affected on the control system (if connected), via TCP/IP. To separate control between the web GUI and Telnet, set this feature to OFF. Command queries such as #IPCFG and #Type will only return information to the requester. Use the sta argument to display the current setting.

Syntax

```
Broadcast X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
Broadcast on
```

Feedback

```
Broadcast on
```

CSpara

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

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	None, Odd, 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]
```

EDIDCopy

Saves the downstream EDID to the specified internal memory location on the unit. Do not use a space between the command and the first argument.

Syntax

```
EDIDCopyX Y
```

Parameter	Description	Range
X	Input	1 ... 4
Y	Memory location	1 ... 8

Example

```
EDIDCopy1 4
```

Feedback

```
EDIDCopy1 4
```

EDIDMSet

Assigns an EDID to the specified input. The EDID can be either one of the internal preprogrammed EDIDs or a custom EDID that can be stored in one of the eight memory locations. A brief description of each preprogrammed EDID is listed in the table below. For a detailed summary of each EDID, refer to the User Manual for more information. Use arguments 1 through 8 to store the EDID in any of eight memory locations. To display the EDID assigned to an input, use the sta argument.

Syntax

```
EDIDMSetX Y
```

Parameter	Description	Range
X	Input	1 ... 2
Y	EDID preset	1 ... 24
Z	Memory location	1 ... 8

Example

```
EDIDMSet2 3 1
EDIDMSet1 sta
```

Feedback

```
EDIDMSet2 3 1
EDIDMSet1 default
```

EDID (parameter Y)	Description	EDID (parameter Y)	Description
1	Default	13	1280x800 DVI
2	1080p 2CH	14	1920x1200 2CH
3	1080p MCH	15	3840x2160@60 4:2:0 2CH
4	1080p DD	16	3840x2160@60 4:2:0 MCH
5	1080p 3D 2CH	17	3840x2160@30 4:4:4 2CH
6	1080p 3D MCH	18	3840x2160@60 4:4:4 MCH
7	1080p 3D DD	19	4096x2160@60 4:2:0 2CH
8	720p 2CH	20	4096x2160@60 4:2:0 MCH
9	720p DD	21	3840x2160@60 4:4:4 2CH
10	1280x800 2CH	22	3840x2160@60 4:4:4 MCH
11	1366x768 2CH	23	4K 60 4:2:0 HDR 2CH
12	1080p DVI	24	4K 60 4:2:0 HDR MCH*

* HD multichannel audio (lossless).

HDCPSet

Set the HDCP reporting mode of the specified **HDMI** input port. Some computers will send HDCP content if an HDCP-compliant display is detected. Setting this value to off, will force the computer to ignore detection of HDCP-compliant displays. Disabling this feature will *not* decrypt HDCP content. on = enables HDCP detection; off = disables HDCP detection; sta = displays the current setting. No space should exist between the first argument and the command.

Syntax

```
HDCPSetX Y
```

Parameter	Description	Range
X	Input	1 ... 4
Y	Reporting status	on, off, sta

Example

```
HDCPSet1 off
```

Feedback

```
HDCPSet1 off
```

HDMI Aud

Enables or disables audio on the HDMI output. on = enables HDMI audio output; off = disables HDMI audio output; sta = displays the current setting.

Syntax

```
HDMI Aud X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
HDMI Aud off
```

Feedback

```
HDMI Aud 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

```
Command List
```

```
-----
Help
IPCFG
IPDHCP
...
...
```

InputBroadcast

Enabling this feature will invoke the InputStatus command, when a new source is connected, and will return the state of all inputs. This also applies when auto-switching occurs. on = enable; off = disable; sta = displays the current setting.

Syntax

```
InputBroadcast X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
InputBroadcast on
```

Feedback

```
InputBroadcast on
```

InputStatus

Displays the state of each input. 0 = no source connected; 1 = source connected. Optionally specify the number of the input, as an argument, to return the state of that input.

Syntax

```
InputStatus [X]
```

Parameter	Description	Range
X	Input (optional)	1 ... 4

Examples

```
InputStatus
InputStatus1
```

Feedback

```
InputStatus 0000
InputStatus1 0
```

IPAddUser

Adds a user for Telnet control. This command performs the same function as adding a user within the **Config** page of the web GUI. Refer to the User Manual for more information.

Syntax

```
IPAddUser X Y
```

Parameter	Description	Range
X	User name	20 characters (max)
Y	Password	20 characters (max)

Example

```
IPAddUser BigBoss b055man
```

Feedback

```
IPAddUser BigBoss b055man
TCP/IP user was added
```

IPCFG

Displays the current network settings for the unit.

Syntax

```
IPCFG
```

This command does not require any parameters

Example

```
IPCFG
```

Feedback

```
Mac Addr: B8:98:B0:05:DF:F7
IP Addr: 10.0.1.101
Netmask: 255.255.255.0
Gateway: 10.0.1.1
Telnet Port: 23
HTTP Port: 80
```

IPDelUser

Deletes the specified TCP/IP user. This command performs the same function as removing a user within the **Config** page of the web GUI. Refer to the User Manual for more information.

Syntax

```
IPDelUser X
```

Parameter	Description	Range
X	User	User name

Example

```
IPDelUser MinionTwo
```

Feedback

```
IPDelUser MinionTwo
TCP/IP user was deleted
```

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 IPQuit command for more information.

Syntax

```
IPDHCP X
```

Parameter	Description	Range
X	Value	on, off, sta

Example
IPDHCP on

Feedback
IPDHCP on

IPLogin

Enables or disables the use of login credentials when starting a Telnet session on the unit. If this feature is set to on, then the unit will prompt for both the username and password. Use the same credentials as the web GUI. on = login credentials required; off = no login required. Use the sta argument to display the current setting.

Syntax

```
IPLogin X
```

Parameter	Description	Range
X	Value	on, off, sta

Example
IPLogin off

Feedback
IPLogin off

IPPort

Sets the Telnet listening port for the unit. Use the sta argument to display the current setting.

Syntax

```
IPPort X
```

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

Example
IPPort 23

Feedback
IPPort 23

IPQuit

Closes the current Telnet session.

Syntax

```
IPQuit
```

This command does not require any parameters

Example

```
IPQuit
```

Feedback

```
Connection lost...
```

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 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 Telnet session is automatically closed.

Syntax

```
IPTimeout X
```

Parameter	Description	Range
X	Interval (in seconds)	1 ... 60000

Example

```
IPTimeout 300
```

Feedback

```
IPTimeout 300
```

IROFF

Disables the IR receiver on the AT-JUNO-451.

Syntax

```
IROFF
```

This command does not require any parameters

Example

```
IROFF
```

Feedback

```
IROFF
```

IRON

Enables the IR receiver on the AT-JUNO-451.

Syntax

```
IRON
```

This command does not require any parameters

Example

```
IRON
```

Feedback

```
IRON
```

Lock

Locks the buttons on the front panel. This feature is useful when the unit is installed in a rack environment or other remote location, to prevent unauthorized tampering or accidental pressing of the front-panel buttons. Also refer to the ##Unlock command.

Syntax

```
Lock
```

This command does not require any parameters

Example

```
Lock
```

Feedback

```
Lock
```

Mreset

Resets the unit to factory-default settings.

Syntax

```
Mreset
```

This command does not require any parameters

Example

```
Mreset
```

Feedback

```
Mreset
```

PWOFF

Executing this command will power-off the AT-JUNO-451. Use the PWON command to power-on the unit.

Syntax

```
PWOFF
```

This command does not require any parameters

Example

```
PWOFF
```

Feedback

```
PWOFF
```

PWON

Executing this command will power-on the AT-JUNO-451. Use the PWOFF command to power-off the unit.

Syntax

```
PWON
```

This command does not require any parameters

Example

```
PWON
```

Feedback

```
PWON
```


PWSTA

Displays the current power state of the AT-JUNO-451.

Syntax

```
PWSTA
```

This command does not require any parameters

Example

```
PWSTA
```

Feedback

```
PWON
```

RAtIMac

Displays the MAC address of the unit.

Syntax

```
RAtIMac
```

This command does not require any parameters

Example

```
RAtIMac
```

Feedback

```
b8-98-b0-00-56-c9
```

Status

Displays the which input is routed to the output. The routing state is returned as xyAVx1, where the y is the input.

Syntax

```
Status
```

This command does not require any parameters

Example

```
Status
```

Feedback

```
x3AVx1
```

System

Displays the current configuration of the AT-JUNO-451. The sta argument must be specified.

Syntax

```
System X
```

Parameter	Description	Range
X	Constant	sta

Example

```
System sta
```

Feedback

```
Model: AT-JUNO-451
MAC Addr: b8-98-b0-00-3b-f9
Address Type: DHCP
IP: 10.20.20.121
Netmask: 255.255.255.0
Gateway: 10.20.20.1
Http Port: 80
Telnet Port: 23
Firmware: 1.2.10
On/Up Time <dd HH:mm:ss>: 0 23:39:40
Power Status: PWON
```

Toslink

Enables or disables the OPTICAL port on the back of the unit. Use the sta argument to display the current setting.

Syntax

```
Toslink X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
Toslink off
```

Feedback

```
Toslink off
```

Type

Displays the model information of the unit.

Syntax

Type

This command does not require any parameters

Example

Type

Feedback

AT-JUNO-451

Unlock

Unlocks the buttons on the front panel. Also refer to the [Lock](#) command.

Syntax

Unlock

This command does not require any parameters

Example

Unlock

Feedback

Unlock

Version

Displays the current firmware version of the unit.

Syntax

Version

This command does not require any parameters

Example

Version

Feedback

1.2.10

x?AVx1

Routes the specified input to the output.

Syntax

```
xYAVx1
```

Parameter	Description	Range
?	Input	1 ... 4

