

Opus 4K HDR HDMI to HDBaseT Matrix Switcher

Application Programming Interface

AT-OPUS-810M	API
AT-OPUS-68M	
AT-OPUS-46M	

Version Information

Version	Release Date	Notes
1	10/18	Initial release
2	12/18	Parity added to RS232para command

Commands

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

Commands can be sent using RS-232, TCP/IP, or Telnet. The default port for Telnet is 23. Each command is case sensitive. Do not change capitalization, spacing, or lettering. Each command is terminated with a carriage return. If the command fails or is incorrect the feedback should be "Command FAILED:" followed by the sent command.



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
All#	Resets all inputs to corresponding outputs
Blink	Enable/Disable red and blue alternating blinking of the PWR button LED
Broadcast	Enables, disables, and displays status of broadcast mode
Clear	Erases the saved I/O route settings for the chosen preset number
ClearA	Erases the audio settings for the specified audio preset
ClearV	Erases the video settings for the specified video preset
CSpara	Set RS-232 parameter
EDIDMSet	Sets the EDID of an input to default, internal, or a previously saved EDID
EDIDOut save	Saves the output EDID to memory
HTTPPort	Set the TCP/IP port for HTTP
IPAddUser	Add a user for TCP/IP control
IPCFG	Displays IP address configuration
IPChangePass	Update the TCP/IP username and password
IPDelUser	Delete a user from TCP/IP control
IPDHCP	Turns DHCP on / off
IPLogin	Enables / Disables IPLogin mode
IPPort	Set the TCP/IP port for telnet
IPQuit	Logs out of current TCP/IP session
IPStatic	Sets a static IP address
IPTimeout	Determines amount of seconds of inactivity before TCP/IP disconnects
IROFF	Disables the front panel IR receiver window
IRON	Enables the front panel IR receiver window
LocalIR	Set local IR channel routing commands
Lock	Locks the front panel of the matrix so no buttons are active
Mreset	Sets matrix back to the default settings

Commands

Command	Description
PWOFF	Turns the unit off
PWON	Turns the unit on
PWSTA	Displays the power status of the matrix
Reboot	Reboots the system
Recall	Recalls saved I/O route settings for the chosen preset number
RecallA	Recalls saved audio route settings for the number you selected
RecallV	Recalls saved video route settings for the number you selected
RS232para	Sets the parameters for the HDBaseT RS-232 output ports
RS232zone	Sends commands to the connected display
Save	Saves I/O route settings for future use, preset options 1 to 50
SaveA	Saves the current audio route settings, preset options 1 to 50
SaveV	Saves the current video route settings, preset options 1 to 50
sddp_announce	Triggers SDDP announcement
set_host_name	Set host name for SDDP protocol
show_host_name	Displays the current host name
Status	Displays which inputs are currently routed to which outputs
Statusx	Displays which input is currently routed to the indicated output
TrigCEC	Sends the specified command to the display using CEC
Type	Brings up the model information
Unlock	Unlocks the front panel of the matrix, enabling the buttons again
Version	Brings up the current firmware version
view_log	View the matrix log data
VIN	Adjusts the volume of the input
VOUT	Adjusts the volume of the output
VOUTMute	Mutes/Unmutes audio output volume
x?All	Routes selected input to all outputs
x?\$	Mutes/Unmutes video signals for the specified output channel
x?Ax&	Switch the audio input to the selected output
x?Vx&	Switch the video input to the selected output
x?AVx&	Switch a specific input to a specific output

All#

Resets all inputs to corresponding outputs.

Syntax

All#

Example

All#

Feedback

x1AVx1, x2AVx2, x3AVx3, x4AVx4, x5AVx5, x6AVx6, x7AVx7, x8AVx8

Blink

Enable/Disable red and blue alternating blinking of the PWR button LED. Default is off.

Syntax

Blink X

Parameter	Description	Range
X	Value	on, off, sta

Example

Blink sta

Feedback

Blink off

Broadcast

Enables, disables, and displays status of broadcast mode. Default is off.

Syntax

Broadcast X

Parameter	Description	Range
X	Value	on, off, sta

Example

Broadcast sta

Feedback

Broadcast on

Clear

Erases the saved I/O route settings for the chosen preset number.

Syntax

ClearX

Parameter	Description	Range
X	I/O preset number	1 to 50

Example

Clear2

Feedback

Clear2

ClearA

Erases the audio settings for the specified preset. Do not add a space between the command and the audio preset number.

Syntax

ClearAX

Parameter	Description	Range
X	Audio preset number	1 to 50

Example

ClearA2

Feedback

ClearA2

ClearV

Erases the video settings for the specified preset. Do not add a space between the command and the video preset number.

Syntax

ClearVX

Parameter	Description	Range
X	Video preset number	1 to 50

Example

ClearV2

Feedback

ClearV2

CSpa

Set the matrix RS-232 baud rate.

Syntax

CSpa[X]

Parameter	Description	Range
X	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200

Example

CSpa[115200]

Feedback

CSpa[115200]

EDIDMSet

Sets the EDID of an input to default, internal, or a previously saved EDID. EDID is set to default with factory settings.

Syntax

EDIDMSetX YZ

Parameter	Description	Range
X	Input	1 to 8
Y	EDID type	default, save, int
Z	Value	save - 1 to 10 (810M), 1 to 8 (68M), 1 to 6 (46M) int - 1 to 16

Example

EDIDMSet1 default
 EDIDMSet2 save2
 EDIDMSet3 int3

Feedback

EDIDMSet1 default
 EDIDMSet2 save2
 EDIDMSet3 int3

Internal EDIDs

1: 1080p / 2 channel audio
 2: 1080p / multichannel audio (lossless)
 3: 1080p 3D / Dolby Digital audio
 4: 1080p 3D / 2 channel audio
 5: 1080p 3D / multichannel audio (lossless)
 6: 1080p 3D / Dolby Digital audio
 7: 720p / 2 channel audio
 8: 720p / Dolby Digital audio

9: 1280x800 RGB / 2 channel audio
 10: 1366x768 RGB / 2 channel audio
 11: 1080p DVI
 12: 1280x800 RGB DVI
 13: 4K 30Hz / 2 channel audio
 14: 4K 30Hz / multichannel audio
 15: 4K 60Hz / 2 channel audio
 16: 4K 60Hz / multichannel audio

EDIDOut save

Saves the output EDID to memory.

Syntax

```
EDIDOutX saveY
```

Parameter	Description	Range
X	Value	1 to 10 (810M), 1 to 8 (68M), 1 to 6 (46M)
Y	Value	1 to 10 (810M), 1 to 8 (68M), 1 to 6 (46M)

Example

```
EDIDOut2 save2
```

Feedback

```
EDIDOut2 save2
```

HTTPPort

Sets the TCP/IP port for HTTP. Default is 80.

Syntax

```
HTTPPort X
```

Parameter	Description	Range
X	Port	0 to 65535

Example

```
HTTPPort 50
```

Feedback

```
HTTPPort 50
```

IPAddUser

Add a user for TCP/IP control.

Syntax

```
IPAddUser X Y
```

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

Example

```
IPAddUser ABCd Y4n
```

Feedback

```
IPAddUser ABCd Y4n  
TCP/IP user was added
```


IPCFG

Displays IP address configuration.

Syntax

IPCFG

Example

IPCFG

Feedback

MAC addr: A1:23:B4:56:78:C9

IP addr: 192.168.11.11

Netmask: 255.255.255.0

Gateway: 192.168.11.1

Web Port: 80

IP Port: 23

IPChangePass

Update the TCP/IP username and password.

Syntax

IPChangePass **W X Y Z**

Parameter	Description	Range
W	Old username	20 characters (max)
X	Old password	20 characters (max)
Y	New password	20 characters (max)
Z	New password confirmation	20 characters (max)

Example

IPChangePass ABCd Y4n Y56c Y56c

Feedback

IPChangePass ABCd Y4n Y56c Y56c

IPDelUser

Delete a user from TCP/IP control.

Syntax

IPDelUser **X**

Parameter	Description	Range
X	User name	20 characters (max)

Example

IPDelUser ABCd

Feedback

IPDelUser ABCd
TCP/IP user was deleted

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

IPLogin

Enables / Disables IPLogin mode. Default is off.

Syntax

IPLogin **X**

Parameter	Description	Range
X	Value	on, off, sta

Example

IPLogin off

Feedback

IPLogin off

IPPort

Set the TCP/IP port for telnet. Default is 23.

Syntax
IPPort X

Parameter	Description	Range
X	Port	1 to 65535, sta

Example
IPPort 23

Feedback
IPPort 23

IPQuit

Logs out of current TCP/IP session.

Syntax
IPQuit

Example
IPQuit

Feedback
IPQuit

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

IPTimeout

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

Syntax

IPTimeout **X**

Parameter	Description	Range
X	Interval (in seconds)	1 to 3600

Example

IPTimeout 300

Feedback

IPTimeout 300

IROFF

Disables the front panel IR window.

Syntax

IROFF

Example

IROFF

Feedback

IROFF

IRON

Enables the front panel IR window.

Syntax

IRON

Example

IRON

Feedback

IRON

LocalIR

Sets the IR route for the matrixed IR outputs. The last two IR outputs on the OPUS are always matrixed.

Syntax

LocalIR **X Y**

Parameter	Description	Range
X	Input IR channel	1 to 8 (810M), 1 to 6 (68M), 1 to 4 (46M)
Y	Local IR channel	9 or 10 (810M), 7 or 8 (68M), 5 or 6 (46M)

Example

LocalIR 4 9

Feedback

IR out channel 9 follows IR input 4

Lock

Locks the front panel of the matrix so no buttons are active. The PWR led will blink blue when locked.

Syntax

Lock

Example

Lock

Feedback

Lock

Mreset

Sets matrix back to the default settings.

Syntax

MReset

Example

Mreset

Feedback

Mreset

PWOFF

Turns the unit off. Front panel LED will illuminate red when off.

Syntax

PWOFF

Example

PWOFF

Feedback

PWOFF

PWON

Turns the unit on. Front panel LED will illuminate blue when on.

Syntax

PWON

Example

PWON

Feedback

PWON

PWSTA

Displays the power status of the matrix.

Syntax

PWSTA

Example

PWSTA

Feedback

PWON

Reboot

Reboots the matrix.

Syntax

Reboot

Example

Reboot

Feedback

Rebooting system...

Recall

Recalls saved Audio and Video route settings of the chosen preset number.

Syntax

RecallX

Parameter	Description	Range
X	Preset	1 to 50

Example

Recall3

Feedback

Recall3 Done!

RecallA

Recalls saved Audio route settings of the chosen preset number.

Syntax

RecallAX

Parameter	Description	Range
X	Preset	1 to 50

Example

RecallA11

Feedback

RecallA11 Done!

RecallV

Recalls saved Video route settings of the chosen preset number.

Syntax

RecallVX

Parameter	Description	Range
X	Preset	1 to 50

Example

RecallV16

Feedback

RecallV16 Done!

RS232para

Sets the parameters for the HDBaseT RS-232 zone output ports.

Syntax

RS232para**X**[**Y,Z**]

Parameter	Description	Range
X	Zone	1 to 8 (810M), 1 to 6 (68M), 1 to 4 (46M)
Y	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200
Z	Parity	0 (none), 1 (Even), 2 (odd), 3 (mark), 4 (space), sta

Example

RS232para4[sta]

Feedback

RS232para4[9600,1]

RS232zone

Sends commands to the connected display. Refer to the User Manual of the display device for a list of available commands. Brackets must be used when specifying the command string. The command parameter must not contain any spaces.

Syntax

RS232zone**X**[**Y**]

Parameter	Description	Range
X	Output port (zone)	1 to 8 (810M), 1 to 6 (68M), 1 to 4 (46M)
Y	Command	String

Example

RS232zone2[command]

Feedback

RS232zone1[command]

Save

Saves Audio and Video route settings for future use, preset options 1 to 50.

Syntax

SaveX

Parameter	Description	Range
X	Preset	1 to 50

Example

Save1

Feedback

Save1 Done!

SaveA

Saves Audio route settings for future use, preset options 1 to 50.

Syntax

SaveAX

Parameter	Description	Range
X	Preset	1 to 50

Example

SaveA12

Feedback

SaveA12 Done!

SaveV

Saves Video route settings for future use, preset options 1 to 50.

Syntax

SaveVX

Parameter	Description	Range
X	Preset	1 to 50

Example

SaveV21

Feedback

SaveV21 Done!

sddp_announce

Triggers the SDDP announcement.

Syntax

```
sddp_announce
```

Example

```
sddp_announce
```

Feedback

```
sddp_announce
```

set_host_name

Set the host name for SDDP protocol.

Syntax

```
set_host_name X
```

Parameter	Description	Range
X	Variant	host name - up to 40 characters, no spaces

Example

```
set_host_name Peanut
```

Feedback

```
Host name changed to: Peanut
```

show_host_name

Displays the current host name for SDDP protocol.

Syntax

```
show_host_name
```

Example

```
show_host_name
```

Feedback

```
Host name: Peanut
```

Status

Displays the current route status.

Syntax
Status X

Parameter	Description	Range
X	Variant	A, V, or AV

Example

Status

Feedback

x3Vx1, x1Vx2, x1Vx3, x5Vx4, x7Vx5, x4Vx6, x8Vx7, x3Vx8, x5Vx9, x2Vx10

x4Ax1, x1Ax2, x6Ax3, x8Ax4, x3Ax5, x1Ax6, x2Ax7, x3Ax8, x6Ax9, x5Ax10

Status V

x3Vx1, x1Vx2, x1Vx3, x2Vx4, x7Vx5, x4Vx6, x8Vx7, x3Vx8, x5Vx9, x2Vx10

Statusx

Displays which inputs are currently connected to which outputs.

Syntax
Statusx? Y

Parameter	Description	Range
?	Output	1 to 8 (810M), 1 to 6 (68M), 1 to 4 (46M)
Y	Variant	A, V, or AV

Example

Statusx4 AV

Statusx9 V

Feedback

x5Vx4 x2Ax4

x5Vx9

TrigCEC

Sends the specified command to the display using CEC. The output must always be specified and set to the value of 1. Do not add a space between the command and the first argument.

Syntax

```
TrigCECX Y
```

Parameter	Description	Range
X	Zone	1 to 10 (810M), 1 to 8 (68M), 1 to 6 (46M)
Y	State	on, off

Example

```
TrigCEC2 off
```

Feedback

```
TrigCEC2 off
```

Type

Brings up the model information.

Syntax

```
Type
```

Example

```
Type
```

Feedback

```
AT-OPUS-810M
```

Unlock

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

Syntax

```
Unlock
```

Example

```
Unlock
```

Feedback

```
Unlock
```

Version

Brings up the current firmware version.

Syntax

Version

Example

Version

Feedback

Firmware 1.0.00

view_log

Brings up the current firmware version.

Syntax

view_log X

Parameter	Description	Range
X	Parameter	all or log count number

Example

view_log 1

Feedback

```
-----
Atlona UI: AT-OPUS-810M
FW Version: 0.1.80
Log item count: 172
Log from: 10-15-18 22:40:04
-----
```

000AC 10-15-18 22:28:34 HS>VIDEO PowerUp Done

VIN

Adjusts the volume level of the input.

Syntax

VINX Y

Parameter	Description	Range
X	Input Channel	1 - 24 (810M), 1 - 19 (68M), 1 - 14 (46M)
Y	Value	+, -, or -10 to 10

Example

VIN1 -
VIN4 -5

Feedback

VIN1 8
VIN4 -5

VOUT

Adjusts the analog audio output volume level.

Syntax

VOUTX Y

Parameter	Description	Range
X	Audio Output Channel	1 - 10 (810M), 1 - 8 (68M), 1 - 6 (46M)
Y	Value	+, -, or -71 to 15

Example

VOUT3 -50

Feedback

VOUT3 -50

VOUTMute

Mutes/Unmutes analog audio output volume by channel.

Syntax

VOUTMuteX Y

Parameter	Description	Range
X	Audio Output Channel	1 - 10 (810M), 1 - 8 (68M), 1 - 6 (46M)
Y	Value	on, off, sta

Example

VOUTMute3 sta

Feedback

VOUTMute3 on

x?All

Routes selected input to all outputs.

Syntax

x?All

Parameter	Description	Range
?	Input	1 - 8 (810M), 1 - 6 (68M), 1 - 4 (46M)

Example

x3All

Feedback

x3All

x?\$

Mutes/Unmutes video signals for the specified output channel.

Syntax

x?\$ Y

Parameter	Description	Range
X	Output	1 - 10 (810M), 1 - 8 (68M), 1 - 6 (46M)
Y	Variable	on, off, sta

Example

x2\$ sta

Feedback

x2\$ on

x?AVx&

Switch audio and video input to output.

Syntax

x?AVx&

Parameter	Description	Range
?	Input	1 - 8 (810M), 1 - 6 (68M), 1 - 4 (46M)
&	Output	1 - 10 (810M), 1 - 8 (68M), 1 - 6 (46M)

Example

x1AVx3

Feedback

x1AVx3

x?Ax&

Switch audio input to output.

Syntax

x?Ax&

Parameter	Description	Range
?	Input	1 - 24 (810M), 1 - 19 (68M), 1 - 14 (46M)
&	Output	1 - 10 (810M), 1 - 8 (68M), 1 - 6 (46M)

Example

x5Ax4

Feedback

x5Ax4

x?Vx&

Switch video input to output.

Syntax

x?Vx&

Parameter	Description	Range
?	Input	1 - 8 (810M), 1 - 6 (68M), 1 - 4 (46M)
&	Output	1 - 10 (810M), 1 - 8 (68M), 1 - 6 (46M)

Example

x2Vx7

Feedback

x2Vx7

Audio Inputs

The audio inputs are:



