AT-HDR-MX1616

HDR 16x16 HDBaseT Matrix Switcher

API Command Reference

October 2026



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Version Information

This document lists the commands for controlling the AT-HDR-MX1616 over RS-232, TCP/IP, Telnet, and SSH. Its version history follows the original command reference.

Version	Date	Notes
1	May 2025	Factory release
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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Product Page (AT-HDR-MX1616)	https://www.hallresearch.com/product/AT-HDR-MX1616

IMPORTANT: Visit hallresearch.com/product/AT-HDR-MX1616 for the latest firmware updates and documentation.

Introduction

General

This document provides an alphabetical list of the commands available for the AT-HDR-MX1616. Commands can be sent using RS-232, TCP/IP, Telnet, or SSH. The default Telnet port is 23 and the default SSH port is 22. All commands are case-sensitive and must be entered as documented. If the command fails or is entered incorrectly, 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).

Ports

Telnet port: 23. SSH port: 22. RS-232 settings: 115200, N, 8, 1 (default).

This unit also supports TCP Proxy to the RS-232 port of each HDBaseT output with the following port assignments:

TCP Port	Port Description
9001	HDBaseT OUT 1
9002	HDBaseT OUT 2
9003	HDBaseT OUT 3
9004	HDBaseT OUT 4
9005	HDBaseT OUT 5
9006	HDBaseT OUT 6
9007	HDBaseT OUT 7
9008	HDBaseT OUT 8
9009	HDBaseT OUT 9
9010	HDBaseT OUT 10
9011	HDBaseT OUT 11
9012	HDBaseT OUT 12
9013	HDBaseT OUT 13
9014	HDBaseT OUT 14
9015	HDBaseT OUT 15
9016	HDBaseT OUT 16

Command Quick Reference

Select a command name to go to its full description.

Command	Description
All#	Resets the matrix to the factory-default one-to-one routing state
Broadcast	Enables or disables broadcast mode
Clear	Erases the specified preset
CSpara	Sets the baud rate for the RS-232 port on the AT-HDR-MX1616
EDIDMSet	Assigns an EDID to the specified input
EDIDOut	Save the EDID of the display (sink) to the specified memory location
help	Displays the list of available commands
HTTPPort	Sets the HTTP listening port for the AT-HDR-MX1616
IPAddUser	Adds a user for web GUI login, SSH, and Telnet sessions
IPCFG	Displays the current network settings for the AT-HDR-MX1616
IPChangePass	Changes the password for the specified user
IPDelUser	Deletes the specified user
IPDHCP	Enables or disables DHCP mode on the AT-HDR-MX1616
IPLogin	Enables or disables the use of login credentials when initiating a Telnet session on the AT-HDR-MX1616
IPPort	Sets the Telnet listening port for the AT-HDR-MX1616
IPQuit	Closes the current Telnet session
IPStatic	Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDR-MX1616
IPTimeout	Specifies the time interval of inactivity before the Telnet session is terminated
IROFF	Disables the IR EXT port on the HDR-MX1616
IRON	Enables the IR EXT port on the HDR-MX1616
Lock	Locks the buttons on the front panel
Mreset	Resets the AT-HDR-MX1616 to factory-default settings
PWOFF	Executing this command will power-off the AT-HDR-MX1616
PWON	Executing this command will power-on the AT-HDR-MX1616
PWSTA	Displays the current power state of the AT-HDR-MX1616
Recall	Loads the specified routing preset
RS232HexZone	Send a HEX command to the HDBaseT receiver's RS-232 port

Command	Description
RS232para	Sets the baud rate for RS-232 over the HDBaseT (ZONE OUT) ports
RS232zone	Sends commands to the connected display
Save	Saves the current routing state to the specified preset
sddp_announce	Manually sends an SDDP announcement
set_host_name	Sets the host name
show_host_name	Displays the host name
Status	Displays the current routing status for each output
Statusx	Displays the current routing status for the specified output
syslock	Enables or disables SSH
syslockTelnet	Enables or disables Telnet
Type	Displays the model information of the AT-HDR-MX1616
Unlock	Unlocks the buttons on the front panel
Version	Displays the current version of firmware
VOUT	Sets the output channel volume, in decibels
VOUTMute	Controls volume muting for the specified audio channel (zone)
x?$	Enables or disables the specified output channel
x?All	Routes the specified input to all outputs
x?AVx?	Routes the specified input to the specified output

Commands

All#

Resets the matrix to the factory-default one-to-one routing state. This command only resets the input/output routing: Input 1 > Output 1, Input 2 > Output 2, etc. No other settings are affected.

Syntax

```
All#
```

This command does not require any parameters.

Example

```
All#
```

Feedback

```
All#
```

Broadcast

Enables or disables broadcast mode. By default, broadcast mode is set to off. When set to on, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP. To separate control between web GUI and Telnet, set this feature off. on = enables broadcast mode; off = disables broadcast mode; sta = displays the current setting.

Syntax

```
Broadcast X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
Broadcast on
```

Feedback

```
Broadcast on
```

Clear

Erases the specified preset.

Syntax

```
ClearX
```

Parameter	Description	Range
X	Preset	1 ... 20

Example

```
Clear2
```

Feedback

```
Clear2
```

CSpara

Sets the baud rate for the RS-232 port on the AT-HDR-MX1616. The baud rate must be enclosed in brackets.

Syntax

```
CSpara[X]
```

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

Example

```
CSpara[19200]
```

Feedback

```
CSpara[19200]
```

EDIDMSet

Assigns an EDID to the specified input. The EDID can be one of the internal pre-programmed EDID selections or a custom EDID that can be stored in one of ten memory locations. A brief description of each pre-programmed EDID is listed in the table below. To display the EDID assigned to an input, use the sta argument. Do not use a space between the command and the first parameter.

> **NOTE:** EDID selections: Copy 1-32 uses the EDID of the display connected to the selected output (Copy 1-16 = HDMI OUT 1-16, Copy 17-32 = HDBaseT OUT 1-16); ATL 4K60 MCH HDR = 3840x2160@60Hz, multichannel audio, and HDR support; ATL 4K60 MCH = 3840x2160@60Hz, multichannel audio, with no HDR support; ATL 4K60 PCM MCH HDR = 3840x2160@60Hz, multichannel PCM audio, and HDR support; ATL 4K60 PCM MCH = 3840x2160@60Hz, multichannel LPCM audio, with no HDR support; ATL 4K60 2CH = 3840x2160@60Hz, 2-channel audio, with no HDR support; ATL 1080P

MCH = 1920x1080, multichannel audio, with no HDR support; ATL 1080P 2CH = 1920x1080, 2-channel audio, with no HDR support; ATL 1080P DD = 1920x1080, Dolby® Digital, with no HDR support; ATL 1080P DVI = 1920x1080, DVI, with no HDR support; ATL 720P DD = 1280x720, Dolby® Digital, with no HDR support; ATL 720P 2CH = 1280x720, 2-channel audio, with no HDR support; Custom 1-10 selects a custom EDID.

Syntax

```
EDIDMSetX Y
```

Parameter	Description	Range
X	Input	1 ... 16
Y	EDID	default, copy1 ... copy32 save1 ... save10, int1 ... int10, sta

Example

```
EDIDMSet3 int6
EDIDMSet3 sta
```

Feedback

```
EDIDMSet3 int6
EDIDMSet3 int6
```

EDIDOut

Save the EDID of the display (sink) to the specified memory location.

Syntax

```
EDIDOutX Y
```

Parameter	Description	Range
X	Output	1 ... 32 (1-16 = HDMI OUT 1-16, 17-32 = HDBaseT OUT 1-16)
Y	Memory location	save1 ... save10

Example

```
EDIDOut2 save2
```

Feedback

```
EDIDOut2 save2
```

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

```
Available cmds:
help
PWON
PWOFF
PWSTA
…
…
```

HTTPPort

Sets the HTTP listening port for the AT-HDR-MX1616.

Syntax

```
HTTPPort X
```

Parameter	Description	Range
X	Port	0 … 65535

Example

```
HTTPPort 8080
```

Feedback

```
HTTPPort 8080
```

IPAddUser

Adds a user for web GUI login, SSH, and Telnet sessions. This command performs the same function as adding a user within the web GUI. Refer to 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 AT-HDR-MX1616.

Syntax

```
IPCFG
```

This command does not require any parameters.

Example

```
IPCFG
```

Feedback

```
MAC addr: B8:98:B0:03:18:4C
IP addr: 10.0.1.89
Netmask: 255.255.255.0
Gateway: 10.0.1.1
Web Port: 80
IP Port: 23
```

IPChangePass

Changes the password for the specified user.

Syntax

```
IPChangePass X
```

Parameter	Description	Range
W	Username	--
X	Old password	--
Y	New password	--
Z	Password confirmation	--

Example

```
IPChangePass root Atlona BoS5man
```

Feedback

```
IPChangePass root Atlona BoS5man
```

IPDelUser

Deletes the specified user. Deleted users will no longer be able to access the web GUI or initiate Telnet sessions. This command performs the same function as removing a user within the web GUI. Refer to the User Manual for more information.

Syntax

```
IPDelUser X
```

Parameter	Description	Range
X	User	User name

Example

```
IPDelUser Minion2
```

Feedback

```
IPDelUser Minion2
TCP/IP user was deleted
```

IPDHCP

Enables or disables DHCP mode on the AT-HDR-MX1616. 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 DHCP = ON.

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 initiating a Telnet session on the AT-HDR-MX1616. If this feature is set to on, then the AT-HDR-MX1616 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. The default setting is on.

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 AT-HDR-MX1616.

Syntax

```
IPPort X
```

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

Example

```
IPPort 230
```

Feedback

```
IPPort 230
```

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 AT-HDR-MX1616. Before using this command, DHCP must be disabled on the AT-HDR-MX1616. 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-HDR-MX1616 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 terminated. The default setting is 300 seconds.

Syntax

```
IPTimeout X
```

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

Example

```
IPTimeout 300
```

Feedback

```
IPTimeout 300
```

IROFF

Disables the IR EXT port on the HDR-MX1616.

Syntax

```
IROFF
```

This command does not require any parameters.

Example

```
IROFF
```

Feedback

```
IROFF
```

IRON

Enables the IR EXT port on the HDR-MX1616.

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 AT-HDR-MX1616 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-HDR-MX1616. 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-HDR-MX1616. 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-HDR-MX1616.

Syntax

```
PWSTA
```

This command does not require any parameters.

Example

```
PWSTA
```

Feedback

```
PWON
```

Recall

Loads the specified routing preset.

Syntax

```
Recall
```

Parameter	Description	Range
X	Preset	1 ... 20

Example

```
Recall2
```

Feedback

```
Recall2
```

RS232HexZone

Send a HEX command to the HDBaseT receiver's RS-232 port. Each zone corresponds with the HDBaseT OUT.

Syntax

```
RS232HexzoneX[Y]
```

Parameter	Description	Range
X	Zone	1 ... 16
Y	HEX command	View controlled device's manual for HEX commands

Example

```
RS232Hexzone16[010102]
```

Feedback

```
RS232Hexzone16[010102]
```

RS232para

Sets the baud rate for RS-232 over the HDBaseT (ZONE OUT) ports. The baud rate must be included in brackets.

Syntax

```
RS232paraX[Y]
```

Parameter	Description	Range
X	Zone	1 ... 16
Y	Baud rate	2400, 9600, 19200, 38400, 56000, 57600, 115200

Example

```
RS232para3[115200]
```

Feedback

```
RS232para3[115200]
```

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 argument. The command line must not contain any spaces.

Syntax

```
RS232zone[X][Y]
```

Parameter	Description	Range
X	Output port (zone)	1 ... 16
Y	Command	String

Example

```
RS232zone1[command]
```

Feedback

```
RS232zone1[command]
```

Save

Saves the current routing state to the specified preset.

Syntax

```
Save
```

Parameter	Description	Range
X	Preset	1 ... 20

Example

```
Save2
```

Feedback

```
Save2
```

sddp_announce

Manually sends an SDDP announcement. This command is used in conjunction with Control4® devices.

Syntax

```
sddp_announce
```

This command does not require any parameters.

Example

```
sddp_announce
```

Feedback

```
SDDP Announcement processed!
```

set_host_name

Sets the host name. This command is used in conjunction with the SDDP protocol. No spaces are permitted in the host name.

Syntax

```
set_host_name X
```

Parameter	Description	Range
X	String	(40 characters, max.)

Example

```
set_host_name div_room1
```

Feedback

```
set_host_name div_room1
```

show_host_name

Displays the host name.

Syntax

```
show_host_name
```

This command does not require any parameters.

Example

```
show_host_name
```

Feedback

```
div_room1
```

Status

Displays the current routing status for each output.

Syntax

```
Status
```

This command does not require any parameters.

Example

```
Status
```

Feedback

```
x1AVx1,x2AVx2,x3AVx3,x4AVx4,x5AVx5,x6AVx6,x7AVx7,x
8AVx8,x9AVx9,x10AVx10,x11AVx11,x12AVx12,x13AVx13,
x14AVx14,x15AVx15,x16AVx16
```

Statusx

Displays the current routing status for the specified output.

Syntax

```
Statusx X
```

Parameter	Description	Range
X	Output	1 ... 16

Example

```
Statusx8
```

Feedback

```
x7AVx8
```

syslock

Enables or disables SSH. By default, SSH is enabled.

Syntax

```
syslock X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
syslock on
```

Feedback

```
syslock on
```

syslockTelnet

Enables or disables Telnet. By default, Tenet is enabled.

Syntax

```
syslockTelnet X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
syslockTelnet on
```

Feedback

```
syslockTelnet on
```

Type

Displays the model information of the AT-HDR-MX1616. The full argument may be specified to display the host name and firmware version. This argument is optional.

Syntax

```
Type X
```

Parameter	Description	Range
X	Information (optional)	full

Example

```
Type
```

Feedback

```
AT-HDR-MX1616
```

Unlock

Unlocks the buttons on the front panel. Also refer to the Lock command.

Syntax

```
Lock
```

This command does not require any parameters.

Example

```
Lock
```

Feedback

```
Lock
```

Version

Displays the current version of firmware.

Syntax

```
Version
```

This command does not require any parameters.

Example

```
Version
```

Feedback

```
Firmware 1.0.0
```

VOUT

Sets the output channel volume, in decibels. Values for parameter Y can be specified numerically or can be incremental/decremental using the + or - character.

Syntax

```
VOUTX Y
```

Parameter	Description	Range
X	Output	1 ... 16
Y	Value	-79 ... 15, +, -, sta

Example

```
VOUT2 -20
```

Feedback

```
VOUT2 -20
```

VOUTMute

Controls volume muting for the specified audio channel (zone). Use the sta argument to display the current muting state for the specified zone.

Syntax

```
VOUTMuteX Y
```

Parameter	Description	Range
X	Zone	1 ... 16
Y	State	off, on, sta

Example

```
VOUTMute2 on
```

Feedback

```
VOUTMute2 on
```

x?$

Enables or disables the specified output channel. Use the sta argument to display the current state.

Syntax

```
xX$ Y
```

Parameter	Description	Range
X	Channel	1 ... 16
Y	State	off, on, sta

Example

```
x3$ off
```

Feedback

```
x3$ off
```

x?All

Routes the specified input to all outputs.

Syntax

```
xXAll
```

Parameter	Description	Range
X	Channel	1 ... 16

Example

```
x2All
```

Feedback

```
x2All
```

x?AVx?

Routes the specified input to the specified output. Multiple outputs may be specified. If multiple outputs are specified, separate the arguments with commas and no spaces (as shown in the example below).

Syntax

```
xXAVxY
```

Parameter	Description	Range
X	Input	1 ... 16
Y	Output	1 ... 16

Example

```
x3AVx2,x4,x7
```

Feedback

```
x3AVx2,x4,x7
```