



HE-2150UMA-R Command List History

Version	Firmware version	Description	Released Date	Modified by
1.0	MCU: V1.10.01	First Release	2025-12-15	Hovey Tam
2.0	MCU: V1.10.01 AES67: V3.2.0.7	Added DSP Section Commands 6.1-6.14; 7.1-7.6; 8.1-8.3 & 9.1-9.4	2026-06-02	Hovey Tam

HE-2150UMA-R Command List (1/3)

Core Management Section

ASCII Command					
1. Service port (USB-C virtual RS-232) communication protocol (Internal debug). Baud rate: 115200 (Fixed), Data bits: 8, Stop bits: 1, Parity bit: None The end mark of command is "[CR][LF]"					
2. TCP/IP Port: 8000 The end mark of command is "[CR][LF]"					

System Setting					
No.	Command	Description	Parameters	Example	Feedback
1.1	?	Get the list of all commands	N/A	?	List all API commands
1.2	help	Get the list of all commands	N/A	help	List all API commands
1.3	status	Get device current status	N/A	status	List out Status Info
1.4	get version	Get firmware version	N/A	get version	BOOT: V1.00.01 MCU: V1.10.01
1.5	reboot	Reboot the device	N/A	reboot	Reboot... System Initializing... Initialization Finished! BOOT: V1.00.01 MCU: V1.10.01
1.6	reset	Reset system settings to default (Should type "yes" to confirm, "no" to discard)	N/A	reset	Sure to reset system settings to default? Type "yes" after next prompt to confirm...
1.7	reset all	Reset system and network settings to default (Should type "yes" to confirm, "no" to discard)	N/A	reset all	Sure to reset system and network settings to default? Type "yes" after next prompt to confirm...
1.8	set front button [fbtn]	Set front button lock status	fbtn=[0:Unlocked;1:Locked] Default: 0	set front button 0	Front button unlocked
1.9	get front button	Get front button locked on/off status	N/A	get front button	Front button unlocked
1.10	set current time [[y], [m], [d], [h], [mm], [s]]	Set current time	y=[2025~2125]:Year m=[1~12]:Month d=[1~31]:Date h=[0~23]:Hour mm=[0~59]:Minute s=[0~59]:Second	set current time [2025, 4, 14, 9, 0, 0]	Current time [2025, 4, 14, 9, 0, 0]
1.11	get current time	Get current time	N/A	get current time	Current time [2025, 4, 14, 9, 0, 0]
1.12	get temp	Get device internal temperature	N/A	get temp	45C
1.13	get uptime	Get device running time (Day:Hour:Min:Sec)	N/A	get uptime	000:00:13:04
1.14	get hdbt length	Get FROM TX cable length meters Length <20m will return 0; >110m will return 255	N/A	get hdbt length	HDBT length: 70m
1.15	get hdbt link	Get FROM TX link status	N/A	get hdbt link	HDBT link: on
1.16	get hdbt signal	Get FROM TX signal status	N/A	get hdbt signal	HDBT signal: on
1.17	get system log	Get system log	N/A	get system log	[2025-04-27 16:49:00][1]Manual switch to FROM TX

Input Setting					
No.	Command	Description	Parameters	Example	Feedback
2.1	set input [input]	Select input source	input=[1:FROM TX; 2:Local HDMI] Default: 1	set input 1	FROM TX
2.2	get input	Get input source	N/A	get input	FROM TX
2.3	set autoswitch [autosw]	Set auto-switching status	autosw=[0:Off; 1:On] Default: 1	set autoswitch 1	Autoswitch on
2.4	get autoswitch	Get auto-switching status	N/A	get autoswitch	Autoswitch on
2.5	get input [port] cable	Get input port(s) cable status	port=[0:All inputs; 1:FROM TX; 2: Local HDMI]	get input 0 cable	FROM TX cable: connected Local HDMI cable: disconnected
2.6	set input [port] edid [edid]	Set input port(s) EDID	port=[0:All inputs; 1:FROM TX; 2: Local HDMI] edid=[1:Copy HDMI Out; 2:4K2K60_444, Audio 2CH PCM; 3:4K2K60_444, Audio 5.1CH DTS/DOLBY; 4:4K2K60_444, Audio 7.1CH DTS/DOLBY/HD; 5:4K2K30_444, Audio 2CH PCM; 6:4K2K30_444, Audio 5.1CH DTS/DOLBY; 7:4K2K30_444, Audio 7.1CH DTS/DOLBY/HD; 8:1080P60_444, Audio 2CH PCM; 9:1080P60_444, Audio 5.1CH DTS/DOLBY; 10:1080P60_444, Audio 7.1CH DTS/DOLBY/HD; 11:720P60_444, Audio 2CH PCM; 12:1920x1200, Audio 2CH PCM; 13:1680x1050, Audio 2CH PCM; 14:1600x1200, Audio 2CH PCM; 15:1440x900, Audio 2CH PCM; 16:1360x768, Audio 2CH PCM; 17:1280x1024, Audio 2CH PCM; 18:1024x768, Audio 2CH PCM; 19:User Defined 1; 20:User Defined 2] Default: 1	set input 0 edid 1	FROM TX EDID_01: Copy HDMI Out Local HDMI EDID_01: Copy HDMI Out
2.7	get input [port] edid	Get input port(s) EDID mode	port=[0:All inputs; 1:FROM TX; 2: Local HDMI]	get input 0 edid	FROM TX EDID_01: Copy RX HDMI Out Local HDMI EDID_01: Copy RX HDMI Out
2.8	set user edid [uedid] [[data]]	Set user defined EDID	uedid=[1:User defined 1; 2:User defined 2] data=[00 FF FF ...]; 256 bytes EDID data	set user edid 1 [00 FF FF FF...]	User defined 1 EDID is loaded successfully
2.9	get edid data [edidvalue]	Get EDID data value	edidvalue=[0:All EDID; 1:FROM TX; 2:Local HDMI; 3:HDMI output; 4:User defined 1; 5:User defined 2]	get edid data 0	FROM TX EDID [00 FF FF FF...] Local HDMI EDID [00 FF FF FF...] HDMI output EDID [00 FF FF FF...] User defined 1 EDID [00 FF FF FF...] User defined 2 EDID [00 FF FF FF...]

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Core Management Section

Output Setting

No.	Command	Description	Parameters	Example	Feedback
3.1	get output cable	Get output port cable status	N/A	get output cable	HDMI output cable: connected
3.2	get output status	Get output port signal status	N/A	get output status	3840x2160p60Hz YUV 4:4:4_8bit
3.3	set output hdcp [hdcp]	Set output port HDCP mode	hdcp=[1:Auto (Follow sink); 2:Force HDCP 1.4; 3:Force HDCP 2.2; 4:Signal management] Default: 1	set output hdcp 1	HDMI output HDCP: auto
3.4	get output hdcp	Get output port HDCP mode	N/A	get output hdcp	HDMI output HDCP: auto
3.5	set output video [video]	Set output port video mode	video=[1:Bypass; 2:Internal pattern] Default: 1	set output video 2	HDMI output video: internal pattern
3.6	get output video	Get output port display mode	N/A	get output video	HDMI output video: internal pattern
3.7	set output signal [output]	Set output port signal status	output=[1:On; 2:Off; 3:AVMUTE(Black Screen)] Default: 1	set output signal 1	HDMI output signal: on
3.8	get output signal	Get output port signal status	N/A	get output signal	HDMI output signal: on
3.9	set pattern [res] [pattern]	Set internal pattern generator resolution and pattern	res=[1:4K60Hz; 2:4K50Hz; 3:4K25Hz; 4:4K24Hz; 5:1080P60Hz; 6:480P60Hz; 7:576P50Hz] pattern=[1:Black; 2:Checkboard; 3:Strip; 4:Red; 5:Green; 6:Blue; 7:White; 8:Ramp; 9:Red ramp; 10:Green ramp; 11:Blue ramp; 12:PRBS]	set pattern 1 2	Pattern: 4K60Hz checkboard
3.10	get pattern	Get internal pattern generator resolution and pattern	N/A	get pattern	Pattern: 4K60Hz checkboard
3.11	set audio [audio] gain [gain]	Set audio output gain	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output] Analog audio output gain=[0dB~79dB] AES67 audio output gain=[12dB ~ -60dB] Default: 0dB	set audio 0 gain -5	Analog audio gain: -5dB AES67 audio gain: -5dB
3.12	get audio [audio] gain	Get audio output(s) gain value	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output]	get audio 0 gain	Analog audio gain: -5dB AES67 audio gain: -5dB
3.13	set audio [audio] gain+	Increase audio output(s) gain by 1dB	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output]	set audio 0 gain+	Analog audio gain: -4dB AES67 audio gain: -4dB
3.14	set audio [audio] gain+[db]	Increase audio output(s) gain by several dB	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output] db=[Any value within the difference between maximum value and current value]	set audio 0 gain+4	Analog audio gain: 0dB AES67 audio gain: 0dB
3.15	set audio [audio] gain-	Decrease audio output(s) gain by 1dB	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output]	set audio 0 gain-	Analog audio gain: -1dB AES67 audio gain: -1dB
3.16	set audio [audio] gain-[db]	Decrease audio output(s) gain by several dB	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output] db=[Any value within the difference between current value and minimum value]	set audio 0 gain-4	Analog audio gain: -5dB AES67 audio gain: -5dB
3.17	set audio [audio] mute [mute]	Set audio output(s) mute status	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output] mute=[0:Off; 1:On]; Default: 0	set audio 0 mute 1	Analog audio mute: on AES67 audio mute: on
3.18	get audio [audio] mute	Get audio output(s) mute status	audio=[0:All audio outputs(exceptHDMI audio); 1:Analog audio output; 2:AES67 audio output]	get audio 0 mute	Analog audio mute: on AES67 audio mute: on

Network Setting

No.	Command	Description	Parameters	Example	Feedback
4.1	get ipconfig	Get the current IP configuration	N/A	get ipconfig	IP Mode: DHCP IP address: 192.168.62.106 Subnet mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 MAC address: 6C:DF:FB:0C:B3:8E (Static: 169.254.100.200255.255.0.0 169.254.100.1)
4.2	get mac addr	Get network MAC address	N/A	get mac addr	MAC address: 6C:DF:FB:0C:B3:8E
4.3	set ip mode [ipmode]	Set network IP mode to static IP or DHCP	ipmode=[0:Static; 1:DHCP] Default: 1 Note: DHCP on, device can't config static address, subnet mask and gateway. Please set DHCP off first.	set ip mode 0	IP mode: static (Please use "set net reboot" command to apply new configuration.)
4.4	get ip mode	Get network IP mode	N/A	get ip mode	IP mode: static
4.5	set ip addr [ip]	Set network IP address	ip=[xxx.xxx.xxx.xxx.xxx] Default=192.168.0.100	set ip addr 192.168.1.100	IP address: 192.168.1.100 (Please use "set net reboot" command to apply newconfiguration.)
4.6	get ip addr	Get network IP address	N/A	get ip addr	IP address: 192.168.1.100
4.7	set subnet [mask]	Set network subnet mask	mask=[xxx.xxx.xxx.xxx.xxx] Default=255.255.0.0	set subnet 255.255.0.0	Subnet mask: 255.255.0.0 (Please use "set net reboot" command to apply new configuration.)
4.8	get subnet	Get network subnet mask	N/A	get subnet	Subnet mask: 255.255.0.0
4.9	set gateway [gw]	Set network gateway	gw=[xxx.xxx.xxx.xxx.xxx] Default=192.168.0.1	set gateway 192.168.1.1	Gateway: 192.168.1.1 (Please use "set net reboot" command to apply new configuration.)
4.10	get gateway	Get network gateway	N/A	get gateway	Gateway: 192.168.1.1
4.11	set tcp/ip port [tcpip]	Set network TCP/IP port	tcpip=[1~65535]	set tcp/ip port 8000	TCP/IP port: 8000
4.12	get tcp/ip port	Get network TCP/IP port	N/A	get tcp/ip port	TCP/IP port: 8000
4.13	set net reboot	Reboot network modules	N/A	set net reboot	Network reboot...

Password Setting

No.	Command	Description	Parameters	Example	Feedback
5.1	set admin password [admin]	Set admin login password	admin= Max.16 characters	set admin password 1234	Admin password: 1234
5.2	get admin password	Get admin login password	N/A	get admin password	Admin password: 1234
5.3	set user password [user]	Set user login password	user= Max.16 characters	set user password 1234	User password: 1234
5.4	get user password	Get user login password	N/A	get user password	User password: 1234

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AES67 DSP Section

ASCII Command

1. UDP Port: 12005

- The end mark of command is "[CR][LF]" .
- Each UDP packet should contain only one command.
- The maximum length for a single UDP request or response packet is 1432 bytes.

Note 1: Client commands must be within 1432 bytes.**Note 2:** Device responses will be controlled within 1432 bytes.2. If the device encounters any of the following conditions, it will return **"Fail"** as feedback:

- The command is empty or command format is incorrect.
- The value or parameter is invalid.
- Recalling a Preset that does not exist.
- The device is currently unable to execute the operation.

Audio Gain & Level Settings

No.	Command	Description	Parameters	Example	Feedback
6.1	get gain in [inCh]	Get the input gain	inCh=[1~20]:Input channel number	get gain in 1	get gain in 1 +6.0
6.2	get gain out [outCh]	Get the output gain	outCh=[1~8]:Output channel number	get gain out 2	get gain out 2 +6.0
6.3	get gain batch in [startInCh]	Get input gain in batches	startInCh=[1~20]:Starting input channel number	get gain batch in 1	get gain batch in 1 +6.0,0.0,0.0,0.0
6.4	get gain batch out [startOutCh]	Get output gain in batches	startOutCh=[1~8]:Starting output channel number	get gain batch out 1	get gain batch out 1 +6.0,0.0,0.0,0.0
6.5	set gain in [inCh] [gain]	Set the input gain value	gain={-60.0 ~ +12.0}:Gain value in dB	set gain in 1 5	set gain in 1 5 OK
6.6	set gain out [outCh] [gain]	Set the output gain value	delta:[0.0~72.0]Increment/Decrement value in dB	set gain out 2 -5	set gain out 2 -5 OK
6.7	increase gain in [inCh] [delta]	Increase the input gain by a value		increase gain in 1 2	increase gain in 1 2 OK
6.8	increase gain out [outCh] [delta]	Increase the output gain by a value		increase gain out 2 2	increase gain out 2 2 OK
6.9	decrease gain in [inCh] [delta]	Decrease the input gain by a value		decrease gain in 1 3	decrease gain in 1 3 OK
6.10	decrease gain out [outCh] [delta]	Decrease the output gain by a value		decrease gain out 2 3	decrease gain out 2 3 OK
6.11	get level in [inCh]	Get the input level status		get level in 1	get level in 1 -28.5
6.12	get level out [outCh]	Get the output level status		get level out 2	get level out 2 -30.5
6.13	get level batch in [startInCh]	Get input level in batches		get level batch in 1	get level batch in 1 -60.0,-58.5,-61.0,-59.0
6.14	get level batch out [startOutCh]	Get output level in batches		get level batch out 1	get level batch out 1 -60.0,-58.5,-61.0,-59.0

Mute Settings

No.	Command	Description	Parameters	Example	Feedback
7.1	get mute in [inCh]	Get the input mute status	inCh=[1~20]:Input channel number	get mute in 1	get mute in 1 ON
7.2	get mute out [outCh]	Get the output mute status	outCh=[1~8]:Output channel number	get mute out 2	get mute out 2 ON
7.3	get mute batch in [startInCh]	Get input mute status in batches	startInCh=[1~20]:Starting input channel number	get mute batch in 1	get mute batch in 1 OFF,OFF,ON,OFF
7.4	get mute batch out [startOutCh]	Get output mute status in batches	startOutCh=[1~8]:Starting output channel number	get mute batch out 1	get mute batch out 1 OFF,OFF,ON,OFF
7.5	set mute in [inCh] [mute]	Set the input mute status	mute=[ON:Enable;OFF:Disable]	set mute in 1 on	set mute in 1 on OK
7.6	set mute out [outCh] [mute]	Set the output mute status		set mute out 2 off	set mute out 2 off OK

Preset Settings

No.	Command	Description	Parameters	Example	Feedback
8.1	get preset	Get the last recalled Preset ID	id=[1~20]	get preset	get preset 1
8.2	set preset save [id] [name]	Save current settings to specified Preset ID	name= Max. 32 characters (Optional)	set preset save 2 meeting	set preset save 2 meeting OK
8.3	set preset recall [id]	Recall the specified Preset		set preset recall 2	set preset recall 2 OK

Matrix Mix Settings

No.	Command	Description	Parameters	Example	Feedback
9.1	get mix in [inCh] out [outCh]	Get the status of a single crosspoint	inCh=[1~20]:Input channel number	get mix in 1 out 2	get mix in 1 out 2 ON
9.2	get mix batch out [outCh] in [startInCh]	Get crosspoint data in batches	outCh=[1~8]:Output channel number	get mix batch out 2 in 1	get mix batch out 2 in 1 OFF,OFF,ON,OFF
9.3	get mix all	Get all mixing matrix data (Max 1432 bytes, returns Fail if exceeded)	startInCh=[1~20]:Starting input channel number state=[On:Connected;Off:Disconnected]	get mix all	get mix all OUT1-3 IN1-3 OUT1(ON,OFF,OFF); OUT2(OFF,ON,OFF);OUT3(OFF,OFF,ON)
9.4	set mix in [inCh] out [outCh] [state]	Set status of a single crosspoint		set mix in 1 out 2 on	set mix in 1 out 2 on OK