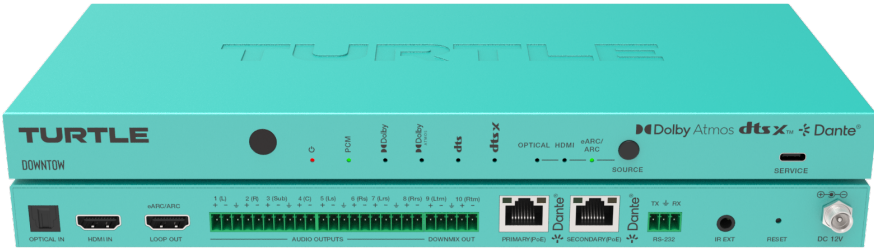


TURTLE

DOWNTOWN



User Manual

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

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1. Introduction

Turtle Downtown is a 10-channel Dante® encoder designed to extract, decode, downmix, and distribute immersive and multi-channel audio from HDMI™, ARC/eARC, and optical audio sources. It supports Dolby Digital, Dolby Digital Plus, Dolby Atmos, DTS, and PCM audio formats, providing up to eight discrete decoded audio channels, plus a dedicated 2-channel stereo downmix.

Decoded audio can be output via balanced or unbalanced analogue outputs, as well as multi-channel Dante® audio streams for routing, mixing, processing, and distribution across a Dante network. This allows Downtown to integrate easily into professional AV, residential, commercial, broadcast, venue, and multi-room audio systems.

Downtown also features an HDMI™ loop output, allowing the original video signal to pass through to a display or other compatible equipment while audio is simultaneously decoded and distributed. The HDMI™ loop output supports video signals up to 8K60, including supported HDR formats.

With support for immersive audio decoding, stereo downmixing, Dante®/AES67 networked audio, analogue outputs, and HDMI™ loop-through, Turtle Downtown provides a flexible and cost-effective solution for systems that require modern HDMI™ or ARC/eARC audio sources to be integrated into professional audio and AV workflows.

2. Features

- ❑ HDMI™, ARC/eARC, and optical audio decoder with Dante and analogue line outputs
- ❑ Supports video pass-through up to 8K@60Hz 4:2:0 10-bit, as specified in HDMI™ 2.1
- ❑ HDCP 2.3 and HDCP 1.x compliant
- ❑ Supports HDR, HDR10, HDR10+, and Dolby Vision pass-through
- ❑ Supports LPCM 7.1, Dolby TrueHD, and DTS-HD Master Audio pass-through
- ❑ Built-in audio decoder supporting up to 7.1.4-channel Dolby Atmos or DTS decoding
- ❑ Provides up to 12 channels of decoded audio
- ❑ Simultaneous analogue and Dante audio output
- ❑ Supports the following input audio formats:
 - Dolby Digital
 - Dolby Digital Plus
 - Dolby Atmos
 - DTS Digital Surround
 - DTS
 - PCM 7.1 / 5.1 / 2.0
- ❑ HDMI™ output replicates the HDMI™ input signal up to 8K@60Hz 4:2:0 10-bit
- ❑ HDMI™ output audio can be selected from either the original HDMI™ audio stream or the 2-channel stereo downmix
- ❑ Analogue audio outputs include:
 - 8-channel decoded analogue output
 - 2-channel stereo downmix analogue output
 - Balanced and unbalanced line output support
 - Variable or fixed output level selection

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- ☒ Dante / AES67 audio outputs include:
 - Up to 12 channels of decoded PCM audio
 - 44.1 kHz, 48 kHz, and 96 kHz sample rate support at 24-bit
 - Configurable Dante device latency via Dante Controller
 - AES67 RTP audio transport support
- ☒ Supports ARC/eARC audio reception from the HDMI™ output port
- ☒ Supports analogue output volume control via compatible TV remote using CEC
- ☒ Advanced EDID management
- ☒ Powered by local 12V DC power supply or PoE/PD from the Dante network ports
- ☒ Control via TCP/IP, Web GUI, and front panel buttons

3. Package Contents

- ① 1x Downtown
- ② 1x 12V/2A Desktop Power Supply with US, EU, UK, AU power plugs
- ③ 1x 3pin-3.5mm Phoenix Connector (male)
- ④ 1x 5pin-3.5mm Phoenix Connector (male)
- ⑤ 2x 10pin-3.5mm Phoenix Connector (male)
- ⑥ 1x IR Remote Control
- ⑦ 1x IR Receiver Cable (12V IR)
- ⑧ 2x 1U Mounting Brackets
- ⑨

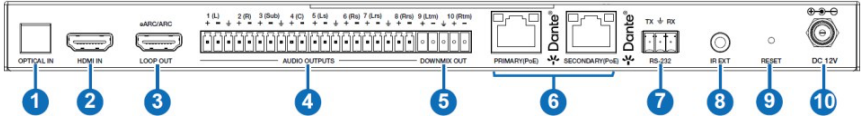
4. Specifications

Technical	
HDMI™ Compliance	HDMI™ 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	40Gbps
Dante® Network Bandwidth	1Gbps
Audio Latency	Configurable Dante audio latency: (Supports 2, 3, 4, 5 or 10ms configurable using Dante® Controller)
Input/Output Video Resolutions	640x480p60Hz, 800x600p60Hz, 1024x768p60Hz, 1280x1024p60Hz, 1360x768p60Hz, 1440x900p60Hz, 1440x1050p60Hz, 1600x1200p60Hz, 720x480i59.94Hz(480i59), 720x480p59.94Hz(480p59), 720x576i50Hz(576i50), 720x576p50Hz(576p50), 1280x720p50Hz(720p50), 1280x720p59.94Hz(720p59), 1280x720p60Hz(720p60), 1920x1080i50Hz(1080i50), 1920x1080i59.94Hz(1080i59), 1920x1080i60Hz(1080i60), 1920x1080p23.98Hz(1080p23), 1920x1080p24Hz(1080p24), 1920x1080p25Hz(1080p25), 1920x1080p29.97Hz(1080p29), 1920x1080p30Hz(1080p30), 1920x1080p50Hz(1080p50), 1920x1080p59.94Hz(1080p59), 1920x1080p60Hz(1080p60), 3840x2160p23.98Hz(2160p23), 3840x2160p24Hz(2160p24), 3840x2160p25Hz(2160p25), 3840x2160p29.97Hz(2160p29), 3840x2160p30Hz(2160p30), 3840x2160p50Hz(2160p50), 3840x2160p59.94Hz(2160p59), 3840x2160p60Hz(2160p60), 3840x2160p100Hz(2160p100), 3840x2160p120Hz(2160p120), 4096x2160p23.98Hz, 4096x2160p24Hz, 4096x2160p25Hz, 4096x2160p29.97Hz, 4096x2160p30Hz, 4096x2160p50Hz, 4096x2160p59.94Hz, 4096x2160p60Hz, 4096x2160p100Hz, 4096x2160p120Hz, 5120x2160p50Hz, 5120x2160p60Hz, 7680x4320p23.98Hz, 7680x4320p24Hz, 7680x4320p25Hz, 7680x4320p29.97Hz, 7680x4320p30Hz, 7680x4320p50Hz, 7680x4320p60Hz. Including all of HDMI™ 2.1 spec defined resolutions.

Color Depth	8/10/12bit	
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0	
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG	
Audio Formats	HDMI™ IN/OUT (Pass-through): Dolby Digital, DD+, Dolby Atmos, DTS Digital Surround, DTS:X, PCM 7.1/5.1/2.0 HDMI™ OUT (Downmixed): Downmixed digital audio, PCM 2CH 48KHz 24Bit ANALOG AUDIO OUT: Line audio: Decoded audio, balanced/unbalanced 8CH, Max output level 2VRMS Line audio: Downmixed audio, balanced/unbalanced 2CH, Max output level 2VRMS DANTE OUT: DEP 12CH: Decoded digital audio, PCM 12CH 44.1K-96KHz 16/24Bit	
Line Output Audio Parameters	Output Impedance	600 Ohm balanced 300 Ohm unbalanced
	Output Level	Max 8.2dBu (2Vrms) @ balanced audio Max 2.2dBu (1Vrms) @ unbalanced audio
	Frequency Response	20Hz to 20kHz (-/+0.5dB)
	Dynamic Range	>100dB@0dBu, 1kHzA-weighted
	Audio S/N Ratio	>100dB@0dBu, 1kHzA-weighted
	Audio THD+N	< 0.01% at +4dBu, 1kHz
	Audio Output Delay	< 10ms
IR Level	12Vp-p	
IR Frequency	Wideband 20K-60KHz	
Transmission Distance	HDMI™ passive cable: 9.8ft/3m(8K); 16.4ft/5m(4K) Dante CAT6 cable: 328ft/100m	
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)	
Connection		
Input	1x HDMI IN [HDMI™ Type A, 19-pin female] 1x OPTICAL IN [S/PDIF, female] [Digital audio input, up to 5.1ch Dolby/DTS] 1x IR EXT [3.5mm stereo jack, 20K-60K wide-frequency IR input]	
Output	1x LOOP OUT [HDMI™ Type A, 19-pin female] 4x AUDIO OUTPUTS [5-pin phoenix, 3.5mm pitch] [Analog audio out, Variable Balanced/unbalanced 8CH, Max output level 2VRMS] 1x DOWNMIX OUT [5-pin phoenix, 3.5mm pitch] [Analog audio out, Variable Balanced/unbalanced 2CH, Max output level 2VRMS]	

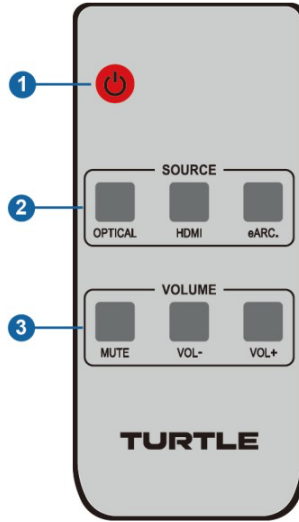
No.	Name	Function Description
5	SOURCE button	Short press the button to select audio source from OPTICAL/HDMI/eARC/ARC input.
6	SERVICE port	USB-C port, used for firmware upgrade and API commands control.

5.2 Rear Panel



No.	Name	Function Description
1	OPTICAL IN port	Optical digital audio input port, supporting 5.1ch Dolby/DTS audio format.
2	HDMI IN port	HDMI signal input port, connected to HDMI source device such as Blu-ray player or TV box with HDMI cable.
3	LOOP OUT port	HDMI signal loop output port, supporting video pass-through, and the audio can be pass-through or downmixed to 2ch. In addition, eARC/ARC input is supported.
4	AUDIO OUTPUTS port	Analog audio output ports, supporting variable balanced/unbalanced 8CH output, with max output level of 2VRMS.
5	DOWNMIX OUT port	Downmixed analog audio output port, supporting variable balanced/unbalanced 2CH output, with max output level of 2VRMS. Multiple channels can be combined into stereo output through this port.
6	PRIMARY(PoE) /SECONDARY (PoE) port	Dante® primary/secondary network port, supporting PoE, with the following two functions: (1) Dante® audio 16CH output port. (2) Web GUI and TCP/IP control port. Note: The primary and secondary networks of this product are hot backup networks, that is, when the primary network encounters a problem, it will automatically switch to the secondary network.
7	RS-232 port	RS-232 serial port, used for API commands control.
8	IR EXIT port	20K-60K wide-frequency IR input port, connected to the 12V IR receiver cable. It functions the same as the IR IN window.
9	RESET button	Press and hold this button for 5 seconds to restore the product to factory default settings, all LEDs on the front panel will flash at 1Hz for 5 seconds.
10	DC 12V port	DC 12V/2A power input port.

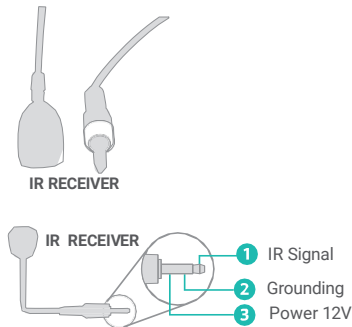
6. IR Remote Control



- ① **Standby button:** Press this button to set the product to standby mode; press again to power on it.
- ② **SOURCE buttons:**
OPTICAL/HDMI/eARC.: Press to select the input audio source.
- ③ **VOLUME buttons:**
MUTE: Press to mute/unmutethe audio.
VOL - , VOL+: Press to increase/decrease the audio output volume.

7. IR Cable Pin Assignment

The pin assignment of the IR Receiver cable is as below:

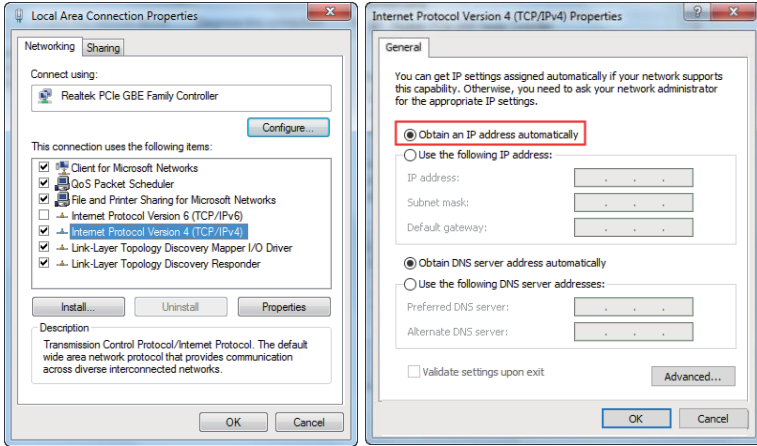


8. Web GUI Operation Guide

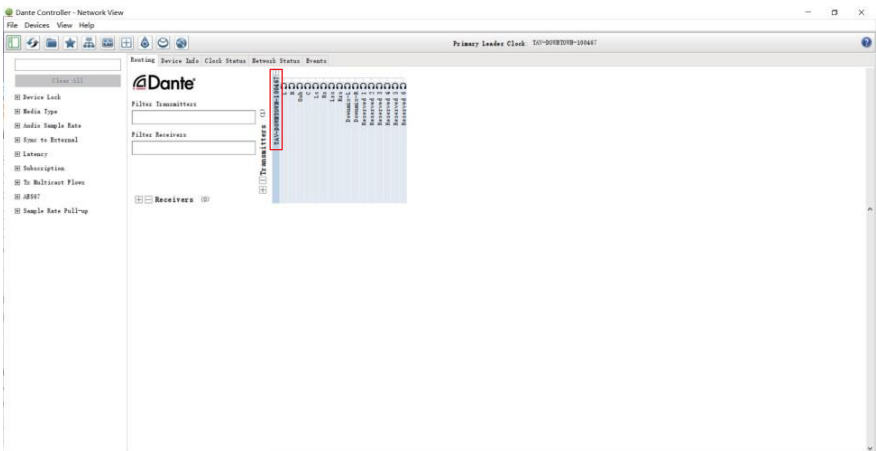
The audio decoder can be controlled by the built-in Web GUI. The operation steps are as following.

Step 1: Connect the Dante® PRIMARY(PoE) port of the audio decoder to an Ethernet Switch.

Step 2: Connect the PC to the same Ethernet Switch, and set the Network connection setting of PC to be "Obtain an IP address Automatically".

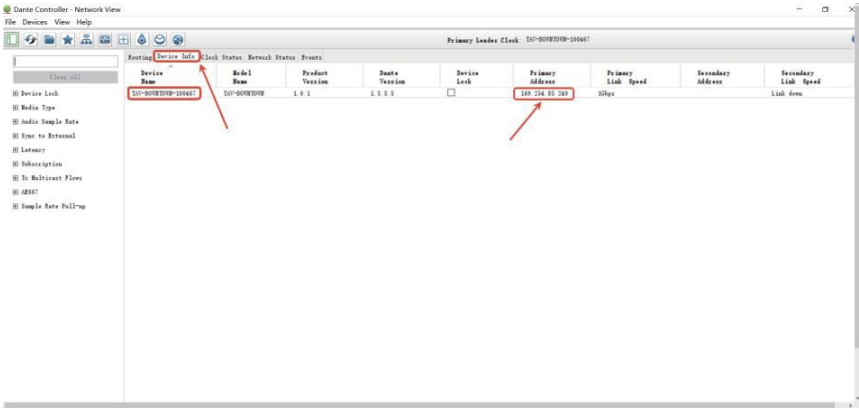


Step 3: Open the Dante® Controller software on the PC, and find the Dante® device on the Routing page, as shown in the figure below.

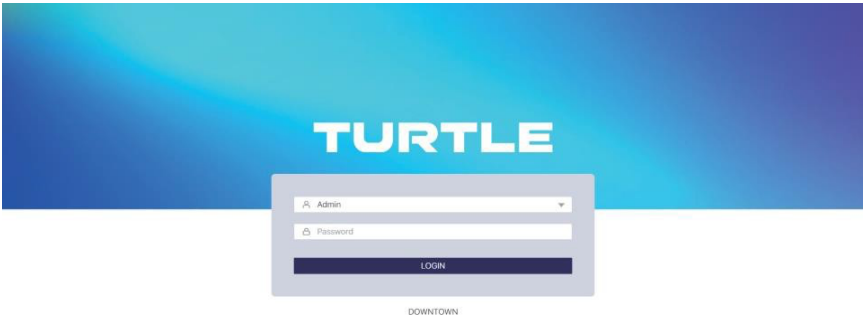


Step 4: Click the Device Info tab to check the IP address of the Dante® device.

Note: The audio decoder is set to DHCP mode by default, and users need to check the device IP address through the Dante® Controller.



Step 5: Input the IP address of Dante® device into your browser on the PC to enter the login interface of the Web GUI.



The default usernames and passwords are as below:

Username	Password
Admin	1234
User	1234

Step 6: Select the default username “Admin” and input the password “1234”, then click the “LOGIN” button to enter the Information page of Web GUI.

■ Information Page

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①

②

③

④

① Information

Information

Model NameTAV-DOWNTOWN

MCU VersionV1.00.04

Web VersionV2.00.06

DSP VersionV2.00.01

DEP VersionV1.3.3.5, 20251231

IP HostnameTAV-DOWNTOWN-00467

Primary

MAC Address18:66:96:10:04:67

IP Address0.0.0.0

Subnet Mask0.0.0.0

Gateway169.254.0.1

Secondary

MAC Address6C:0F:FB:03:4D:50

IP Address192.168.1.100

Subnet Mask255.255.0.0

Gateway192.168.1.1

Temperature38°C

Uptime[Day:Hour:Min:Sec]000:00:09:19

This page provides basic information about the product, such as Model Name, MCU Version, Web Version, DSP Version, DEP Version, IP Hostname, Temperature, Uptime, Network configuration information of the primary network and secondary network.

Besides, you can do the following operations in the upper right corner of each page.

- ① Display and set the audio volume of Master Out. Click the volume icons to increase/decrease the audio volume of Master Out, or click the mute icon to mute/unmute the audio of Master Out.
- ② Display the current username (User or Admin).
- ③ Click the standby icon to set the product in standby mode, or click again to power on it.
- ④ Click the logout icon to logout and return to the login interface.

■ Preset Page

TURTLE

DOWNTOWN

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Admin

Standby

Logout

① Information

Preset

② Preset

Preset ID	Preset Name	Preset Save	Preset Clear	Preset Recall
1	Preset 1	<button>Save</button>	<button>Clear</button>	<button>Recall</button>
2	Preset 2	<button>Save</button>	<button>Clear</button>	<button>Recall</button>
3	Preset 3	<button>Save</button>	<button>Clear</button>	<button>Recall</button>
4	Preset 4	<button>Save</button>	<button>Clear</button>	<button>Recall</button>
5	Preset 5	<button>Save</button>	<button>Clear</button>	<button>Recall</button>

10 / 32

Up to 5 preset scenes can be set on the Preset page.

- ① **Preset Name:** You can name the preset scene (32 characters max).
- ② **Preset Save:** Click the Save button to save the scene.
- ③ **Preset Clear:** Click the Clear button to clear the saved scene.
- ④ **Preset Recall:** Click the Recall button to recall the saved scene.

■ Video Page

TURTLE

① Information

② Preset

③ Video

④ Audio

⑤ Speaker

⑥ DSP

⑦ Network

⑧ System

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Video

Input	Name	Cable	Signal	EDID	HDCP
1	HDMI IN	Disconnected		1. Auto (Copy HDMI Out)	On

Output	Name	Cable	Signal	Video	Audio	HDCP
1	HDMI OUT	Disconnected		1. Bypass	1. Bypass	1. Auto (Follow

EDID Load

Download EDID From

1. HDMI In

Download

User Defined 1 EDID

Load EDID

No file chosen

Save EDID

User Defined 2 EDID

Load EDID

No file chosen

Save EDID

Internal Pattern

Resolution

9. 4K60Hz

Pattern

2. Checkboard

Input Setting

- ① **Input:** Input channel of the device.
- ② **Name:** The input channel's name. You can modify it (16 characters max) as required.
- ③ **Cable:** It indicates the connection status of the input ports.
- ④ **Signal:** It shows the signal information.
- ⑤ **EDID:** Click the drop-down list to set EDID for each input port. The EDID list is as below.

No.	EDID Mode	No.	EDID Mode
1	Auto (Copy HDMI Out)	15	4K60(444)_HDR 5.1CH
2	1080P 2.0CH	16	4K60(444)_HDR 7.1CH
3	1080P 5.1CH	17	4K120(420)_HDR 2.0CH
4	1080P 7.1CH	18	4K120(420)_HDR 5.1CH
5	4K30 2.0CH	19	4K120(420)_HDR 7.1CH
6	4K30 5.1CH	20	4K120(444)_HDR 2.0CH
7	4K30 7.1CH	21	4K120(444)_HDR 5.1CH
8	4K60(420) 2.0CH	22	4K120(444)_HDR 7.1CH
9	4K60(420) 5.1CH	23	FRL10G_8K_HDR 2.0CH
10	4K60(420) 7.1CH	24	FRL10G_8K_HDR 5.1CH
11	4K60(444) 2.0CH	25	FRL10G_8K_HDR 7.1CH
12	4K60(444) 5.1CH	26	User Defined 1
13	4K60(444) 7.1CH	27	User Defined 2
14	4K60(444)_HDR 2.0CH		

Note: Please import the user-defined EDID before selecting User Defined 1/2 as the EDID.

⑥ **HDCP:** Click the drop-down list to turn on/off HDCP encryption for each input port.

Output Setting

① **Output:** Output channel of the device.

② **Name:** The output channel's name. You can modify it (16 characters max) as required.

③ **Cable:** It indicates the connection status of the output ports.

④ **Signal:** It shows the signal information.

⑤ **Video:** Click the drop-down list to set the video mode.

Bypass: Video signal pass through.

Internal Pattern: Internal pattern output.

AV Mute: Mute the video and output the black screen.

Off: Turn off the video output.

⑥ **Audio:** Click the drop-down list to set the audio mode.

Bypass: Audio signal pass through.

Downmix 2CH: Downmix the 8CH audio to 2CH audio.

⑦ **HDCP:** Click the drop-down list to set HDCP encryption for output.

Auto (follow sink): HDCP version follows the corresponding display device.

Follow source: HDCP version follows the signal source.

Force HDCP 1.4: HDCP 1.4 compliant.

Force HDCP 2.3: HDCP 2.3 compliant.

Signal Management: Reserved mode.

EDID Load

① **Export EDID to your computer:** Click the drop-down list to select the input/output/user-defined EDID, then click "Download".

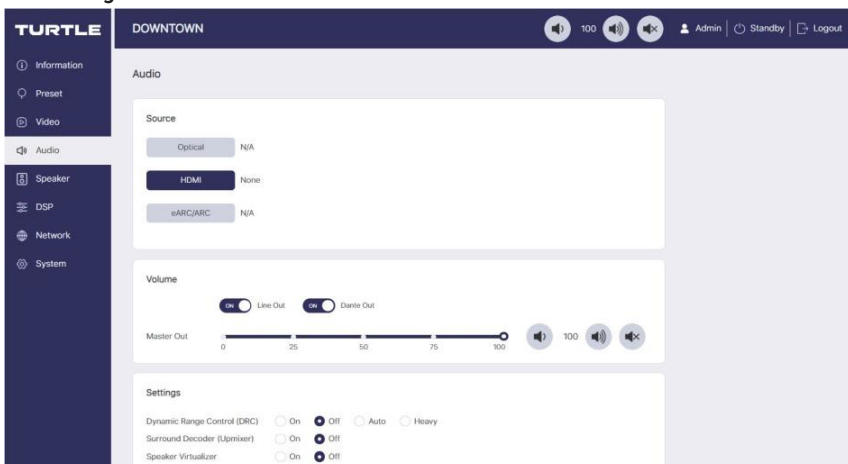
② **Import user-defined EDID:** Click "Load EDID" to upload User Defined 1/2 EDID, then click "Save EDID".

Internal Pattern

① **Resolution:** Click the drop-down list to select the internal signal generator resolution (8K30Hz / 4K120Hz / 4K100Hz / 5K60Hz / 5K50Hz / 5K30Hz / 5K25Hz / 5K24Hz / 4K60Hz / 4K50Hz / 4K25Hz / 4K24Hz / 1080P60Hz / 480P60Hz / 576P50Hz).

② **Pattern:** Click the drop-down list to select the pattern (Color bar / Checkboard / Strip / Red / Green / Blue / White / Ramp / Red ramp / Green ramp / Blue ramp / PRBS / Black).

■ Audio Page



Source

Optical/HDMI/eARC/ARC: Click the corresponding button to select the audio source.

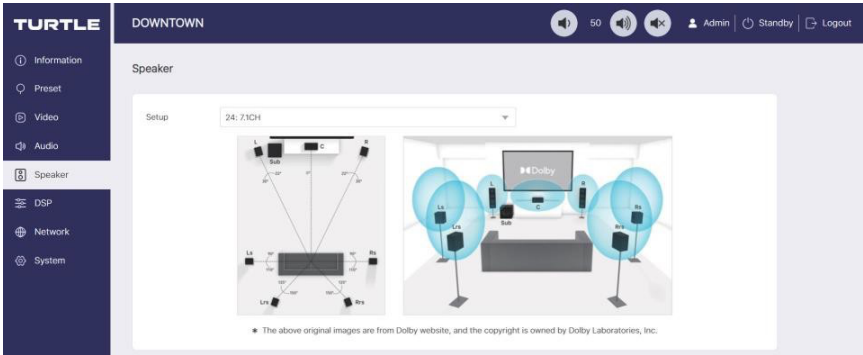
Volume

Master Out: Set the audio volume or mute/unmute the audio for Master Out when turning on both the switches of Line Out and Dante Out. Besides, you can turn on/off the switch of Line Out / Dante Out to respectively set the output volume or mute/unmute the output audio for Line Out / Dante Out.

Settings

- ① **Dynamic Range Control (DRC):** Tick the corresponding checkbox to set the dynamic range control mode (On / Off / Auto / Heavy), which is used to reduce the dynamic range of the audio and minimize the difference between high volume and low volume.
- ② **Surround Decoder (Upmixer):** Tick the corresponding checkbox to turn on / off the upmixer, which is used to convert ordinary stereo or multi-channel audio to surround sound format.
- ③ **Speaker Virtualizer:** Tick the corresponding checkbox to turn on / off the speaker virtualizer, which is used to simulate surround sound effects with multiple speakers through algorithms.

■ Speaker Page



Source

Setup: Click the drop-down list to select the audio channel and speaker to set the speaker mode. Up to 27 modes are supported.

The screenshot displays the Turtle DSP configuration interface. On the left is a dark sidebar with navigation options: Information, Preset, Video, Audio, Speaker, DSP, Network, and System. The main area is titled 'Line Out' and features two buttons: 'Active Input' (selected) and 'Pink Noise'. Below these are settings for eight speakers: L, R, Sub, C, Ls, Rs, Lrs, and Rrs. Each speaker has a radio button for 'Bass Management' or 'Full Range' and a 'Delay' field set to 0 ms. A 'Crossover Frequency' is set to 100 Hz. Two 'Downmix' sections (L and R) show checkboxes for 'Mono Out' and 'Downmixed From' channels. At the bottom, there are ten vertical gain sliders for L, R, Sub, C, Ls, Rs, Lrs, Rrs, Downmix-L, and Downmix-R, each with a 'Gain(dB)' field ranging from -24 to +6. A 'Reset' button is located at the bottom center.

Line Out

- ① **Active Input / Pink Noise:** Click the corresponding button to select the audio source for line output. "Active Input" is the current input signal, and "Pink Noise" is used for debug.
 - ② **Bass Management / Full Range:** Tick the corresponding checkbox to select the audio management frequency.
 - ③ **Delay:** Click the up / down icon to set the delay time (0~50ms).
 - ④ **Crossover Frequency:** Click the up / down icon to set the crossover frequency (40~250Hz).
 - ⑤ **Mono Out:** Tick the checkbox to turn on / off the mono out for Downmix-L / R.
 - ⑥ **Downmixed From:** Tick the corresponding checkbox to select output channels for audio downmix.
 - ⑦ **Gain(dB):** Click the up/down icon or directly drag the slider to set the gain value (-24~+6dB) for each output channel.
- Clicking on "Reset" will reset to default settings. Please proceed with caution.

Note: The Bass Management / Full Range function and Crossover Frequency are used in conjunction. For example, if the frequency output of the L channel is between 20~600Hz, and Full Range is selected, the L channel will maintain the output of sound within the frequency range of 20~600Hz; if Bass Management is selected, the bass part from 20~100Hz (assuming the Crossover Frequency is set to 100Hz) needs to be mixed into the Sub channel output, while the L channel outputs sound within the frequency range of 100~600Hz.

TURTLE

① Information
 ○ Preset
 ② Video
 ③ Audio
 ④ Speaker
 ⑤ DSP
 ⑥ Network
 ⑦ System

Dante Out

Active Input Pink Noise

L ☐ Bass Management ☒ Full Range Delay 0 50 ms

R ☐ Bass Management ☒ Full Range Delay 0 50 ms

Sub ☒ Bass Management ☐ Full Range Delay 0 50 ms

C ☒ Bass Management ☐ Full Range Delay 0 50 ms

Ls ☒ Bass Management ☐ Full Range Delay 0 50 ms

Rs ☒ Bass Management ☐ Full Range Delay 0 50 ms

Lrs ☒ Bass Management ☐ Full Range Delay 0 50 ms

Rrs ☒ Bass Management ☐ Full Range Delay 0 50 ms

Crossover Frequency 100 Hz

Downmix -L ☐ Mono Out Downmixed From ☒ L ☒ R ☐ Sub ☒ C ☒ Ls ☒ Rs ☒ Lrs ☒ Rrs Delay 0 50 ms

Downmix -R ☐ Mono Out Downmixed From ☒ L ☒ R ☐ Sub ☒ C ☒ Ls ☒ Rs ☐ Lrs ☒ Rrs Delay 0 50 ms

L R Sub C Ls Rs Lrs Rrs Downmix -L Downmix -R

Gain(dB) 0.0 24.0 0.0 24.0 0.0 24.0 0.0 24.0 0.0 24.0 0.0 24.0 0.0 24.0 0.0 24.0 0.0 24.0

Reset

Dante Out

① **Active Input / Pink Noise:** Click the corresponding button to select the audio source for Dante® output. "Active Input" is the current input signal, and "Pink Noise" is used for debug.

② **Bass Management / Full Range:** Tick the corresponding checkbox to select the audio management frequency.

③ **Delay:** Click the up / down icon to set the delay time (0~50ms).

④ **Crossover Frequency:** Click the up / down icon to set the crossover frequency (40~250Hz).

⑤ **Mono Out:** Tick the checkbox to turn on / off the mono out for Downmix-L / R.

⑥ **Downmixed From:** Tick the corresponding checkbox to select output channels for audio downmix.

⑦ **Gain(dB):** Click the up/down icon or directly drag the slider to set the gain value (-24~+6dB) for each output channel.

Clicking on "Reset" will reset to default settings. Please proceed with caution.

Note: The Bass Management / Full Range function and Crossover Frequency are used in conjunction. For example, if the frequency output of the L channel is between 20~600Hz, and Full Range is selected, the L channel will maintain the output of sound within the frequency range of 20~600Hz; if Bass Management is selected, the bass part from 20~100Hz (assuming the Crossover Frequency is set to 100Hz) needs to be mixed into the Sub channel output, while the L channel outputs sound within the frequency range of 100~600Hz.

■ DSP Page

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DSP

PEQ Setting

Output: 1. Line Out - L

Frequency Response Graph (20Hz to 20kHz)

Band	1	2	3	4	5	6	7	8
Filter Type	Parametric	Parametric	Parametric	Parametric	Parametric	Parametric	Parametric	Parametric
Gain [dB]	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
Frequency [Hz]	32Hz	80Hz	200Hz	500Hz	1250Hz	3750Hz	8000Hz	12000Hz
Q	1.492	1.492	1.492	1.492	1.492	1.492	1.492	1.492

Buttons: Clear, Copy PEQ Settings, Export PEQ Settings, Import PEQ Settings

PEQ Setting

- Output:** Click the drop-down list to select the 8CH analog or Dante® output channel.
- 1/2/3/4/5/6/7/8:** band buttons of PEQ. Blue grid indicates that the corresponding band is selected, and then you can set the parameters for it as following.
- Filter Type:** Click the drop-down icon, then select the filter type (Parametric / Lowpass / Highpass / Low Shelf / High Shelf).
- Gain [dB]:** Click the drop-down icon, then drag the slider to set the gain value.
- Frequency [Hz]:** Click the drop-down icon, then drag the slider to set the frequency.
- Q:** Click the drop-down icon, then drag the slider to set the Q value.
- Clear:** Click the button to clear the settings.
- Copy PEQ Settings:** Click the button to copy PEQ settings to the output channel.
- Export PEQ Settings:** Click the button to export PEQ settings.
- Import PEQ Settings:** Click the button to import PEQ settings.

■ Network Page

TURTLE DOWNTOWN 100 Admin Standby Logout

Network

Network Configuration

Primary	Secondary
IP Mode: DHCP	IP Mode: DHCP
IP Address: 192.168.0.1	IP Address: 192.168.1.100
Subnet Mask: 255.255.0.0	Subnet Mask: 255.255.0.0
Gateway: 192.168.0.1	Gateway: 192.168.1.1
TCP Port: 8000	
Telnet Port: 23	
Domain Name: 1AV-DOWNTOWN-00467	

Buttons: Cancel, Save

Network Configuration: Select to set the IP Mode (DHCP / Static) for the primary/ secondary network. When Static is selected, you can manually set the IP Address, Subnet Mask and Gateway as required, then click “Save” to take effect. When DHCP is selected, the system will search and fill the IP address with the one assigned by the router automatically. In addition, you can set the TCP Port, Telnet Port and Domain Name of the primary network. **Note:** The Domain Name displayed as the IP Hostname (for example: “TAV -DOWNTOWN - 00467.local”) can be used to log in to the Web GUI. The Domain Name “TAV -DOWNTOWN - XXXXX.local” is variable for different machines, and can be modified (32 characters max). After setting up, click “Save” to take effect, or you can click “Cancel” to cancel the settings.

■ System Page

The screenshot shows the 'System' configuration page of the Turtle DOWNTOWN web interface. The sidebar on the left contains navigation options: Information, Preset, Video, Audio, Speaker, DSP, Network, and System (which is currently selected). The main content area is divided into three sections. The 'System Utilities' section features three toggle switches: 'Front Panel Lock' (set to OFF), 'IR Remote Control' (set to ON), and 'RS-232 Baud Rate' (set to 115200). Below these are five buttons: 'Reboot', 'Restore Factory', 'Restore Factory (including Network)', 'Export Settings', and 'Import Settings'. The 'Firmware Update' section includes a 'Choose File' button, the text 'No file chosen', and an 'Update' button next to a progress bar. The 'Account Passwords' section contains two rows of password fields for 'User' and 'Admin', each with 'Old Password', 'New Password', and 'Confirm Password' inputs, followed by a 'Save' button for each row.

System Utilities

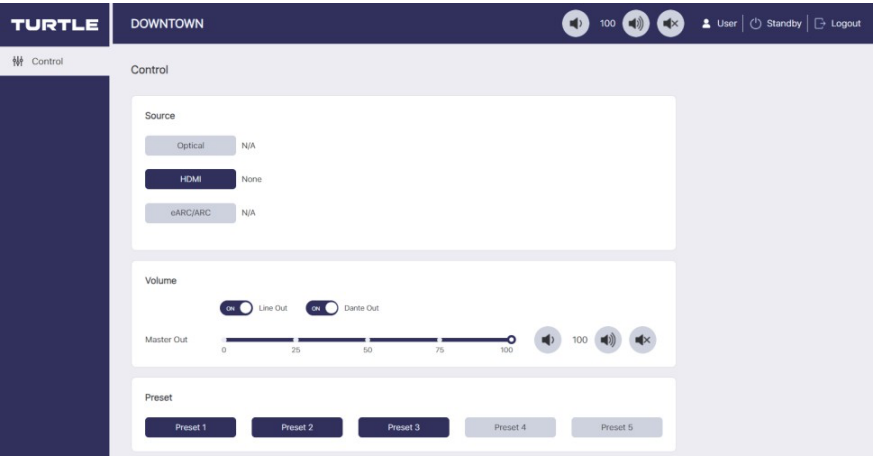
- ① **Front Panel Lock:** Click the switch to lock / unlock the front panel button. “On” indicates that the front panel button is unavailable; “Off” indicates that the front panel button is available.
- ② **IR Remote Control:** Click the switch to turn on / off the IR remote control function.
- ③ **RS -232 Baud Rate:** Click the drop-down list to select the RS -232 baud rate.
- ④ **Reboot:** Click this button to reboot the device.
- ⑤ **Restore Factory:** Click this button to restore the device to factory settings.
- ⑥ **Restore Factory (Including Network):** Click this button to restore the device (including network) to factory settings.
- ⑦ **Export Settings:** Click this button to export configuration files.
- ⑧ **Import Settings:** Click this button to import configuration files.

Firmware Update: You can update the firmware. Click “Choose File” to select the update file, then click “Update” to start update. When the progress bar reaches 100%, the update is complete.

Account Passwords: You can modify the login password for User and Admin. After setting up, click “Save” to take effect.

In the Login interface, select the username “User” and input the password “1234”, then click the “LOGIN” button to enter the User page.

■ User Page



Source

Optical/HDMI/eARC/ARC: Click the corresponding button to select the audio source.

Volume

Master Out: Set the audio volume or mute/unmute the audio for Master Out when turning on both the switches of Line Out and Dante Out. Besides, you can turn on/off the switch of Line Out / Dante Out to respectively set the output volume or mute/unmute the output audio for Line Out / Dante Out.

Preset

Preset 1/2/3/4/5: Click the corresponding button to recall the preset application scenes.

9. API Control Commands

The product also supports API commands control. Connect the SERVICE or RS-232 port of the product to a PC. Then open a Serial Command tool on PC to send ASCII commands to control the product.

The ASCII command list about the product is shown as below.

ASCII Command				
Communication Protocol: RS-232 Baud rate: 115200 (default), Data bit: 8, Stop bit: 1, Parity bit: none TCP/IP port: 8000				
x - Parameter 1, y - Parameter 2				
Command Code	Function Description	Example	Feedback	Default Setting
System Setting				
?	Get the list of all commands	?	List all API commands	
help	Get the list of all commands	help	List all API commands	
get model	Get device model	get model	DOWNTOWN	
status	Get device current status	status	Please refer to the note at the end of the list.	
get version	Get firmware version	get version	BOOT: V1.00.01 MCU: V1.00.01 Web: V1.00.01 DSP: V1.00.01	
power on	Power on the device	power on	Power: on System initializing... Initialization finished! BOOT: V1.00.01 MCU: V1.00.01 WEB: V1.00.01 DSP: V1.00.01	
power off	Power off the device	power off	Power: off	
get power	Get current power state	get power	Power: off	
reboot	Reboot the device	reboot	Reboot... System initializing... Initialization finished! BOOT: V1.00.01 MCU: V1.00.01 WEB: V1.00.01 DSP: V1.00.01	
reset	Reset system settings to default (Should type "yes" to confirm, "no" to discard)	reset	Sure to reset system settings to default? Type "yes" after next prompt to confirm...	
reset all	Reset system and network settings to default (Should type "yes" to confirm, "no" to discard)	reset all	Sure to reset system and network settings to default? Type "yes" after next prompt to confirm...	
set front button x	Set front button locked on/off (x=0~1) x=0: Unlocked x=1: Locked	set front button 0	Button: unlocked	0
get front button	Get front button locked on/off status	get front button	Button: unlocked	

Command Code	Function Description	Example	Feedback	Default Setting
set ir x	Set IR on/off x=0: Off x=1: On	set ir 1	IR: on	1
get ir	Get IR on/offstatus	get ir	IR: on	
set baud x	Set RS -232 baud rate to x bps x=1: 4800 x=2: 9600 x=3: 19200 x=4: 38400 x=5: 57600 x=6: 115200	set baud 6	Baudrate: 115200	115200
get baud	Get RS -232 baud rate	get baud	Baudrate: 115200	
get temp	Get device internal temperature	get temp	65C	
get uptime	Get device running time (Day:Hour:Min:Sec)	get uptime	000:00:13:04	
set auto event report x	Set auto event report on/off x=0: Off x=1: On	set auto event report 1	Auto event report: on	1
get auto event report	Get auto event report on/offstatus	get auto event report	Auto event report: on	
Input Setting				
set input x name y	Set input (x=1) name to y (32 characters max) x=1: HDMI input 1	set input 1 name MacBook	HDMI input 1 name: MacBook	HDMI IN
get input x name	Get input (x=0~1) name x=0: All inputs x=1: HDMI input 1	get input 0 name get input 1 name	HDMI input 1 name: MacBook	
get input x connected	Get input (x=0~1) cable connected status x=0: All inputs x=1: HDMI input 1	get input 0 connected get input 1 connected	HDMI input 1: connected	
set input x edid y	Set input (x=0~1) EDID (y=1~27) x=0: All inputs x=1: HDMI input 1 y=1: Auto (Copy HDMI Out) y=2: 1080P 2.0CH y=3: 1080P 5.1CH y=4: 1080P 7.1CH y=5: 4K30 2.0CH y=6: 4K30 5.1CH y=7: 4K30 7.1CH y=8: 4K60(420) 2.0CH y=9: 4K60(420) 5.1CH y=10: 4K60(420) 7.1CH y=11: 4K60(444) 2.0CH y=12: 4K60(444) 5.1CH y=13: 4K60(444) 7.1CH y=14: 4K60(444)_HDR 2.0CH y=15: 4K60(444)_HDR 5.1CH y=16: 4K60(444)_HDR 7.1CH y=17: 4K120(420)_HDR 2.0CH y=18: 4K120(420)_HDR 5.1CH y=19: 4K120(420)_HDR 7.1CH y=20: 4K120(444)_HDR 2.0CH y=21: 4K120(444)_HDR 5.1CH y=22: 4K120(444)_HDR 7.1CH y=23: FRL10G_8K_HDR 2.0CH y=24: FRL10G_8K_HDR 5.1CH y=25: FRL10G_8K_HDR 7.1CH y=26: User Defined 1	set input 1 edid 1	HDMI input 1 EDID: auto	1

	y=27: User Defined 2			
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Command Code	Function Description	Example	Feedback	Default Setting
get input x edid	Get input (x=0~1) EDID mode x=0: All inputs x=1: HDMI input 1	get input 1 edid	HDMI input 1 EDID: auto	
set user edid x <y>	Set user defined EDID (x=1~2) x=1: User defined 1 x=2: User defined 2 y = 00 FF FF FF (y is 256 bytes EDID data)	set user edid 1 <00 FF FF FF.....>	User defined 1 EDID is loaded successfully	
get edid data x	Get EDID data (x=1~4) x=1: HDMI input 1 x=2: HDMI output 1 x=3: User defined 1 x=4: User defined 2	get edid data 1	HDMI input 1 EDID data <00 FF FF FF.....>	
set input x hdcpc y	Set input (x=0~1) HDCP on/off x=0: All inputs x=1: HDMI input 1 y=0: Off y=1: On	set input 1 hdcpc 1	HDMI input 1 HDCP: on	1
get input x hdcpc	Get input (x=0~1) HDCP on/off status x=0: All inputs x=1: HDMI input 1	get input 1 hdcpc	HDMI input 1 HDCP: on	
Output Setting				
set output x name y	Set output (x=1) name to y (32 characters max) x=1: HDMI output	set output 1 name Sony TV	HDMI output 1 name: Sony TV	HDMI Out
get output x name	Get input (x=0~1) name x=0: All outputs x=1: HDMI output 1	get output 1 name	HDMI output 1 name: Sony TV	
get output x connected	Get output (x=0~1) cable connected status x=0: All outputs x=1: HDMI output 1	get output 1 connected	HDMI output 1: connected	
set output x hdcpc y	Set output (x=0~1) hdcpc mode (y=1~5) x=0: All outputs x=1: HDMI output 1 y=1: Auto (follow sink) y=2: Follow source y=3: Force HDCP 1.4 y=4: Force HDCP 2.3 y=5: Signal management	set output 1 hdcpc 1	HDMI output 1 HDCP: auto (followsink)	1
get output x hdcpc	Get output (x=0~1) hdcpc mode x=0: All outputs x=1: HDMI output 1	get output 1 hdcpc	HDMI output 1 HDCP: auto (followsink)	
set output x video y	Set output (x=0~1) video mode x=0: All outputs x=1: HDMI output 1 y=1: Bypass y=2: Internal pattern y=3: AV Mute y=4: Off	set output 1 video 1	HDMI output 1 video: bypass	1
get output x video	Get output (x=0~1) video mode x=0: All outputs x=1: HDMI output 1	get output 1 video	HDMI output 1 video: bypass	

Command Code	Function Description	Example	Feedback	Default Setting
set output x audio y	Set output (x=0~1) audio mode x=0: All outputs x=1: HDMI output 1 y=1: Bypass y=2: Downmix 2CH	set output 1 audio 1	HDMI output 1 audio: bypass	1
get output x audio	Get output (x=0~1) audio mode x=0: All outputs x=1: HDMI output 1	get output 1 audio	HDMI output 1 audio: bypass	
set pattern x y	Set internal signal generator resolution (x=1~15) pattern (y=1~13) x=01: 8K30Hz x=02: 4K120Hz x=03: 4K100Hz x=04: 5K60Hz x=05: 5K50Hz x=06: 5K30Hz x=07: 5K25Hz x=08: 5K24Hz x=09: 4K60Hz x=10: 4K50Hz x=11: 4K25Hz x=12: 4K24Hz x=13: 1080P60Hz x=14: 480P60Hz x=15: 5760P50Hz y=01: Color bar y=02: Checkboard y=03: Strip y=04: Red y=05: Green y=06: Blue y=07: White y=08: Ramp y=09: Red ramp y=10: Green ramp y=11: Blue ramp y=12: PRBS y=13: Black	set pattern 1 1	Pattern: 8K30Hz color bar	
get pattern	Get internal pattern generator resolution and pattern	get pattern	Pattern: 8K30Hz color bar	
Audio Setting				
set audio source x	Set audio source from (x=1~3) x=1: Optical input x=2: HDMI input 1 x=3: eARC/ARC	set audio source 2	Audio source: HDMI input 1	2
get audio source	Get audio source	get audio source	Audio source: HDMI input 1	
set master include x	Set master output includes (x=0~2) x=0: All outputs x=1: Line output x=2: Dante output	set master include 0	Master include: all outputs	0
set master remove x	Set master output remove (x=0~2) x=0: All outputs x=1: Line output x=2: Dante output	set master remove 0	Master remove: all outputs	

TURTLE				
get master include	Get master output includes	get master include	Master include: all outputs	

Command Code	Function Description	Example	Feedback	Default Setting
set master vol x set vol x	Set master output volume to x x=[0-100] volume value	set master vol 50 set vol 50	Master volume: 50	50
get master vol get vol	Get master output volume	get master vol get vol	Master volume: 50	
set master vol+ set vol+ set master vol+y set vol+y	Increase master output volume Increase master output volume by y y=[1-100];Steps, y can be empty (Step=1)	set master vol+ set vol+ set master vol+5 set vol+5	Master volume: 51 Master volume: 55	
set master vol- set vol- set master vol-y set vol-y	Decrease master output volume Decrease master output volume by y y=[1-100];Steps, y can be empty (Step=1)	set master vol- set vol- set master vol-5 set vol-5	Master volume: 49 Master volume: 45	
set master mute x set mute x	Set master output mute on/off x=0: Off x=1: On	set master mute 1 set mute 1	Master mute: on	0
get master mute get mute	Get master output mute on/off status	get master mute get mute	Master mute: on	
set drc x	Set dynamic range control (DRC) mode to (x=1~4) x=1: On x=2: Off x=3: Auto x=4: Heavy	set drc 1	DRC: on	1
get drc	Get dynamic range control (DRC) mode	get drc	DRC: on	
set upmixer x	Set surround decoder (upmixer) on/off x=0: Off x=1: On	set upmixer 1	Upmixer: on	1
get upmixer	Get surround decoder (upmixer) on/off status	get upmixer	Upmixer: on	
set virtualizer x	Set speaker virtualizer on/off x=0: Off x=1: On	set virtualizer 1	Virtualizer: on	1
get virtualizer	Get speaker virtualizer on/off status	get virtualizer	Virtualizer: on	
Speaker Setting				
set audio out x source y	Set audio out (x=0~2) source from (y=1~2) x=0: All outputs x=1: Line out x=2: Dante out y=1: Active input y=2: Pink noise	set audio out 1 source 1	Line out source: active input	1
get audio out x source	Get audio out (x=0~2) source from x=0: All outputs x=1: Line out x=2: Dante out	get audio out 1 source	Line out source: active input	

Command Code	Function Description	Example	Feedback	Default Setting
set speaker mode x	Set speaker mode to (x=1~27) x=1: 2.0CH x=2: 2.1CH + Top Middle(2.1.2CH) x=3: 2.1CH + Dolby ATMOS Enabled Speaker(2.1.2CH) x=4: 3.1CH x=5: 3.1CH + Top Middle(3.1.2CH) x=6: 3.1CH + Dolby ATMOS Enabled Speaker(3.1.2CH) x=7: 4.1CH x=8: 4.1CH + Top Middle(4.1.2CH) x=9: 4.1CH + Dolby ATMOS Enabled Speaker(4.1.2CH) x=10: 4.1CH + Top Rear + Top Front(4.1.4CH) x=11: 4.1CH + Top Rear + Dolby ATMOS Enabled Speaker(4.1.4CH) x=12: 4.1CH + Dolby ATMOS Enabled Speaker + Top Front (4.1.4CH) x=13: 4.1CH + Front & Rear Dolby ATMOS Enabled Speaker(4.1.4CH) x=14: 5.1CH x=15: 5.1CH + Top Middle(5.1.2CH) x=16: 5.1CH + Dolby ATMOS Enabled Speaker(5.1.2CH) x=17: 5.1CH + Top Rear + Top Front(5.1.4CH) x=18: 5.1CH + Top Rear + Dolby ATMOS Enabled Speaker(5.1.4CH) x=19: 5.1CH + Dolby ATMOS Enabled Speaker + Top Front (5.1.4CH) x=20: 5.1CH + Front & Rear Dolby ATMOS Enabled Speaker(5.1.4CH) x=21: 6.1CH x=22: 6.1CH + Top Middle(6.1.2CH) x=23: 6.1CH + Dolby ATMOS Enabled Speaker(6.1.2CH) x=24: 7.1CH x=25: 7.1CH + Top Middle(7.1.2CH) x=26: 7.1CH + Dolby ATMOS Enabled Speaker(7.1.2CH) x=27: 9.1CH	set speaker mode 1	Speaker mode 1: 2.0CH	1
get speaker mode	Get speaker mode	get speaker mode	Speaker mode 1: 2.0CH	

TURTLE

set audio out x speaker y bass z	Set audio out (x=0~2) speaker (y=1~10) bass on/off x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR z=0: Off z=1: On	set audio out 1 speaker 1 bass 1	Line out speaker L bass: on	off
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Command Code	Function Description	Example	Feedback	Default Setting
get audio out x speaker y bass	Get audio out (x=0~2) speaker (y=1~10) bass on/off status x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR	get audio out 1 speaker 1 bass	Line out speaker L bass: on	
set audio out x speaker y delay z	Set audio out (x=0~2) speaker (y=1~10) delay (z=0~50ms) x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR z=[0~50]: Delay time, Millisecond (step 1ms)	set audio out 1 speaker 1 delay 20	Line out speaker L delay: 20ms	0
get audio out x speaker y delay	Get audio out (x=0~2) speaker (y=1~10) delay time x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR	get audio out 1 speaker 1 delay	Line out speaker L delay: 20ms	

TURTLE

set audio out x speaker y gain z	Set audio out (x=0~2) speaker (y=1~10) gain (z=-24~+6dB) x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR z=[-24~+6]: Gain value, dB (step 0.1dB)	set audio out 1 speaker 1 gain 0	Line out speaker L gain: 0dB	0
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Command Code	Function Description	Example	Feedback	Default Setting
get audio out x speaker y gain	Get audio out (x=0~2) speaker (y=1~10) gain value x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR	get audio out 1 speaker 1 gain	Line out speaker L gain: 0dB	
set audio out x speaker y mute z	Set audio out (x=0~2) speaker (y=1~10) mute on/off x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR z=0: Off z=1: On	set audio out 1 speaker 1 mute 1	Line out speaker L mute: on	off
get audio out x speaker y mute	Set audio out (x=0~2) speaker (y=1~10) mute on/off status x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR	get audio out 1 speaker 1 mute	Line out speaker L mute: on	
set audio out x speaker reset	Set audio out (x=0~2) speaker reset to default x=0: All outputs x=1: Line out x=2: Dante out	set audio out 1 speaker reset	Line out speaker reset	
set audio out x crossover y	Set audio out (x=0~2) crossover frequency (y=40~250Hz) x=0: All outputs x=1: Line out x=2: Dante out y=[40~250]: Frequency value, Hz (step 1Hz)	set audio out 1 crossover 100	Line out crossover: 100Hz	100

TURTLE

get audio out x crossover	Get audio out (x=0~2) crossover frequency x=0: All outputs x=1: Line out x=2: Dante out	get audio out 1 crossover	Line out crossover: 100Hz	
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Command Code	Function Description	Example	Feedback	Default Setting
set audio out x downmix y include <z1z2z3z4z5z6z7 z8>	Set audio out (x=0~2) downmix (y=0~2) include which channels x=0: All outputs x=1: Line out x=2: Dante out y=0: All downmix y=1: Downmix L y=2: Downmix R z1=1: Include L z1=0: Exclude L z2=1: Include R z2=0: Exclude R z3=1: Include Sub z3=0: Exclude Sub z4=1: Include C z4=0: Exclude C z5=1: Include Ls z5=0: Exclude Ls z6=1: Include Rs z6=0: Exclude Rs z7=1: Include Lrs z7=0: Exclude Lrs z8=1: Include Rrs z8=0: Exclude Rrs	set audio out 1 downmix 1 include <10111010>	Line out downmix L: 10111010	10111010
get audio out x downmix y include	Get audio out (x=0~2) downmix (y=0~2) include which channels x=0: All outputs x=1: Line out x=2: Dante out y=0: All downmix y=1: Downmix L y=2: Downmix R	get audio out 1 downmix 1 include	Line out downmix L: 10111010	
set audio out x downmix y mono z	Set audio out (x=0~2) downmix (y=0~2) mono on/off x=0: All outputs x=1: Line out x=2: Dante out y=0: All downmix y=1: Downmix L y=2: Downmix R z=0: Off z=1: On	set audio out 1 downmix 1 mono 1	Line out downmix L mono: on	off
get audio out x downmix y mono	Get audio out (x=0~2) downmix (y=0~2) mono on/offstatus x=0: All outputs x=1: Line out x=2: Dante out y=0: All downmix y=1: Downmix L y=2: Downmix R	get audio out 1 downmix 1 mono	Line out downmix L mono: on	
DSP Setting				
set audio out x speaker y eq k on/off	Set audio out (x=0~2) speaker (y=1~10) EQ index k: on/off x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR k=[0-8]: EQ index 0:All	set audio out 1 speaker 1 eq 1 on	Line out speaker L EQ 1: on	on

Command Code	Function Description	Example	Feedback	Default Setting
set audio out x speaker y eq k typ t frq z val aa q bb	Set audio out (x=0~2) speaker (y=1~10) EQ index k: TYP t to FRQ z VAL aa Q bb x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR k=[0-8]: EQ index 0:All t=[1-5] 1:Parametric, 2:Lowpass, 3:Highpass, 4:Low Shelf, 5:High Shelf z=[20-20000]: Frequency value(Step=0.1Hz) aa=[-15~15]: Gain value (Step=0.1dB) bb=[0.02~16]: Q value (Step=0.01)	set audio out 1 speaker 1 eq 1 typ 1 frq 200 val -18 q 0.02	Line out speaker L EQ 1 TYP 1 FRQ 200 VAL -18 Q 0.02	
get audio out x speaker y eq	Get audio out (x=0~2) speaker (y=1~10) EQ setting x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR	get audio out 1 speaker 1 eq	Line out speaker L EQ 1: Type: Parametric, Frequency: 200Hz, Value: -18dB, Q: 0.02 Off 2: Type: Parametric, Frequency: 500Hz, Value: 3dB, Q: 0.7 On 3: Type: Lowpass, Frequency: 1000Hz, Value: 3dB, Q: 0.7 On 4: Type: Lowpass, Frequency: 200Hz, Value: 3dB, Q: 0.7 On 5: Type: Highpass, Frequency: 5000Hz, Value: -3dB, Q: 0.7 Off 6: Type: Highpass, Frequency: 5000Hz, Value: -3dB, Q: 0.7 On 7: Type: Highpass, Frequency: 8000Hz, Value: -3dB, Q: 0.7 On 8: Type: Highpass, Frequency: 12000Hz, Value: -3dB, Q: 0.7 On	
set audio out x speaker y eq clear	Set audio out (x=0~2) speaker (y=1~10) EQ setting clear x=0: All outputs x=1: Line out x=2: Dante out y=1: L y=2: R y=3: Sub y=4: C y=5: Ls y=6: Rs y=7: Lrs y=8: Rrs y=9: Ltm/DL y=10: Rtm/DR	set audio out 1 speaker 1 eq clear	Line out speaker L EQ: clear	

Command Code	Function Description	Example	Feedback	Default Setting
set audio out x1 speaker y1 eq copy to x2 y2	Set audio out (x1=1~2) speaker (y1=1~10) EQ setting copy to audio out (x2=1~2) speaker (y2=1~10) x1/x2=1: Line out x1/x2=2: Dante out y1/y2=1: L y1/y2=2: R y1/y2=3: Sub y1/y2=4: C y1/y2=5: Ls y1/y2=6: Rs y1/y2=7: Lrs y1/y2=8: Rrs y1/y2=9: Ltm/DL y1/y2=10: Rtm/DR	set audio out 1 speaker 1 eq copy to 2 2	Line out speaker L EQ copy to Dante out speaker L	
Preset Setting				
set preset save x	Save the current unit's settings to the specified preset (x=1~5) All settings except network setting. x=1~5: Preset 1 ~ Preset 5	set preset save 1	Preset 1: save	
set preset recall x	Recall a specified preset into unit (x=1~5) All settings except network setting. x=1~5: Preset 1 ~ Preset 5	set preset recall 1	Preset 1: recall	
set preset clear x	Clear a specified preset into unit (x=1~5) All settings except network setting. x=1~5: Preset 1 ~ Preset 5	set preset clear 1	Preset 1: clear	
set preset x name y	Set preset (x=1~5) name to y (32 characters max) x=1~5: Preset 1 ~ Preset 5	set preset 1 name MeetingRoom 1	Preset 1 name: MeetingRoom 1	
get preset x name	Get preset (x=1~5) name x=1~5: Preset 1 ~ Preset 5	get preset 1 name	Preset 1 name: MeetingRoom 1	
Network Setting				
get ipconfig	Get the current IP configuration	get ipconfig	TCP/IP port: 8000 Telnet port: 23 Primary: IP mode: DHCP IP: 192.168.0.6 Subnet mask: 255.255.255.0 Gateway: 192.168.0.1 MAC: 34:D0:B8:27:1C:5B Static: (192.168.0.3 255. 255.255.0 192.168.0.1) Secondary: IP mode: DHCP IP: 172.31.54.2 Subnet mask: 255.255.0.0 Gateway: 172.31.0.1 MAC: 34:D0:B8:27:1C:58 Static: (192.168.10.31 255.255.255.0 192.168.10.1)	
get pri mac addr	Get primary network MAC address	get pri mac addr	Primary MAC: 6C:DF:FB:0C:B3:8E	
set pri ip mode x	Set primary network IP mode to static IP or DHCP x=[0-1] 0. Static, 1. DHCP	set pri ip mode 0	Primary IP mode: Static (Please use "set net reboot!" command or repower device to apply new config!)	1

Command Code	Function Description	Example	Feedback	Default Setting
get pri ip mode	Get primary network IP mode	get pri ip mode	Primary IP mode: DHCP	
set pri ip addr xxx.xxx.xxx.xxx	Set primary network IP address	set pri ip addr 192.168.1.100	Primary IP address: 192.168.0.100 (Please use "set net reboot!" command or repower device to apply new config!) DHCP on, Device can't config static address, set DHCP off first.	
get pri ip addr	Get primary network IP address	get pri ip addr	Primary IP: 192.168.0.100	
set pri subnet xxx.xxx.xxx.xxx	Set primary network subnet mask	set pri subnet 255.255.255.0	Primary Subnet Mask: 255.255.255.0 (Please use "set net reboot!" command or repower device to apply new config!) DHCP on, Device can't config subnet mask, set DHCP off first.	
get pri subnet	Get primary network subnet mask	get pri subnet	Primary Subnet Mask: 255.255.255.0	
set pri gateway xxx.xxx.xxx.xxx	Set primary network gateway	set pri gateway 192.168.1.1	Primary Gateway: 192.168.1.1 (Please use "set net reboot!" command or repower device to apply new config!) DHCP on, Device can't config gateway, set DHCP off first.	
get pri gateway	Get primary network gateway	get pri gateway	Primary Gateway: 192.168.1.1	
set sec ip mode x	Set secondary network IP mode to static IP or DHCP x=[0-1] 0. Static, 1. DHCP	set sec ip mode 0	Secondary IP mode: Static (Please use "set net reboot!" command or repower device to apply new config!)	
get sec ip mode	Get secondary network IP mode	get sec ip mode	Secondary IP mode: DHCP	
set sec ip addr xxx.xxx.xxx.xxx	Set secondary network IP address	set sec ip addr 192.168.1.100	Secondary IP address: 192.168.0.100 (Please use "set net reboot!" command or repower device to apply new config!) DHCP on, Device can't config static address, set DHCP off first.	
get sec ip addr	Get secondary network IP address	get sec ip addr	Secondary IP: 192.168.0.100	
set sec subnet xxx.xxx.xxx.xxx	Set secondary network subnet mask	set sec subnet 255.255.255.0	Secondary Subnet Mask: 255.255.255.0 (Please use "set net reboot!" command or repower device to apply new config!) DHCP on, Device can't config subnet mask, set DHCP off first.	

Command Code	Function Description	Example	Feedback	Default Setting
get sec subnet	Get secondary network subnet mask	get sec subnet	Secondary Subnet Mask: 255.255.255.0	
set sec gateway xxx.xxx.xxx.xxx	Set secondary network gateway	set sec gateway 192.168.1.1	Secondary Gateway: 192.168.1.1 (Please use "set net reboot!" command or repower device to apply new config!) DHCP on, Device can't config gateway, set DHCP off first.	
get sec gateway	Get secondary network gateway	get sec gateway	Secondary Gateway: 192.168.1.1	
get sec mac addr	Get secondary network MAC address	get sec mac addr	Secondary MAC: 6C:DF:FB:0C:B3:8E	
set tcp/ip portx	Set network TCP/IP port (x=1~65535)	set tcp/ipport 8000	TCP/IP port: 8000	8000
get tcp/ipport	Get network TCP/IP port	get tcp/ipport	TCP/IP port: 8000	
set telnet port x	Set network telnet port (x=1~65535)	set telnet port 23	Telnet port: 23	23
get telnet port	Get network telnet port	get telnet port	Telnet port: 23	
set net reboot	Reboot network modules	set net reboot	Network reboot... Search for IP, Please wait ...! Primary: IP mode: DHCP TCP/IP port: 8000 Telnet port: 23 IP address: 192.168.104.103 Subnet mask: 255.255.255.0 Gateway: 192.168.104.1 MAC address: 18:66:96:10:04:67 (Static: 192.168.0.100 255.255.0.0 192.168.0.1) Secondary: IP mode: DHCP Network Loading... MAC: 18:66:96:10:04:69	
set net hostname xxxx	Set network hostname to xxxx (x=[32 characters max])	set net hostname 1234	Hostname: 1234	Downtown+ (Mac[3],Mac[4], Mac[5])
get net hostname	Get network hostname	get net hostname	Hostname: 1234	
Password Setting				
set admin password x	Set admin login password (x=[16 characters max])	set admin password 1234	Admin password: 1234	1234
get admin password	Get admin login password	get admin password	Admin password: 1234	
set user password x	Set user login password (x=[16 characters max])	set user password 1234	User password: 1234	1234
get user password	Get user login password	get user password	User password: 1234	

Note: The feedback of the command of "status" is as following.
=====

```
Status Info DOWNTOWN
MCU: V1.00.01  WEB: V1.00.01

Power  Key  IR      Master Mute  MasterInclude  Baud  Temp(C) Uptime(Day:Hour:Min:Sec)
On     Lock On  50      Off   Line/Dante Out 115200 46      000:00:13:04

Input  Name    Cable      Resolution    ColorSpace  ColorDepth  HDCP  EDID
1      HDMI IN  Connected  3840x2160p60 RGB 8:8:8    8bit      2.3   Auto(Copy HDMI Out)

Output Name    Cable      Resolution    ColorSpace  ColorDepth  HDCP  VideoMode
1      HDMI OUT  Connected  3840x2160p60 RGB 8:8:8    8bit      2.3   Bypass
AudioMode
Bypass

Source  Format          DRC  Upmixer  Virtualizer  SpeakerSetup
HDMI    Dolby Digital Plus  On   On       On           01: 2.0CH

LineOut  Bass  Gain(dB)  Mute  Delay(ms)
L        Off   0         Off   0
R        Off   0         Off   0
Downmix-L -     0         Off   0
Downmix-R -     0         Off   0

DanteOut Bass  Gain(dB)  Mute  Delay(ms)
L        Off   0         Off   0
R        Off   0         Off   0
Downmix-L -     0         Off   0
Downmix-R -     0         Off   0

Dante_IP
192.168.000.201

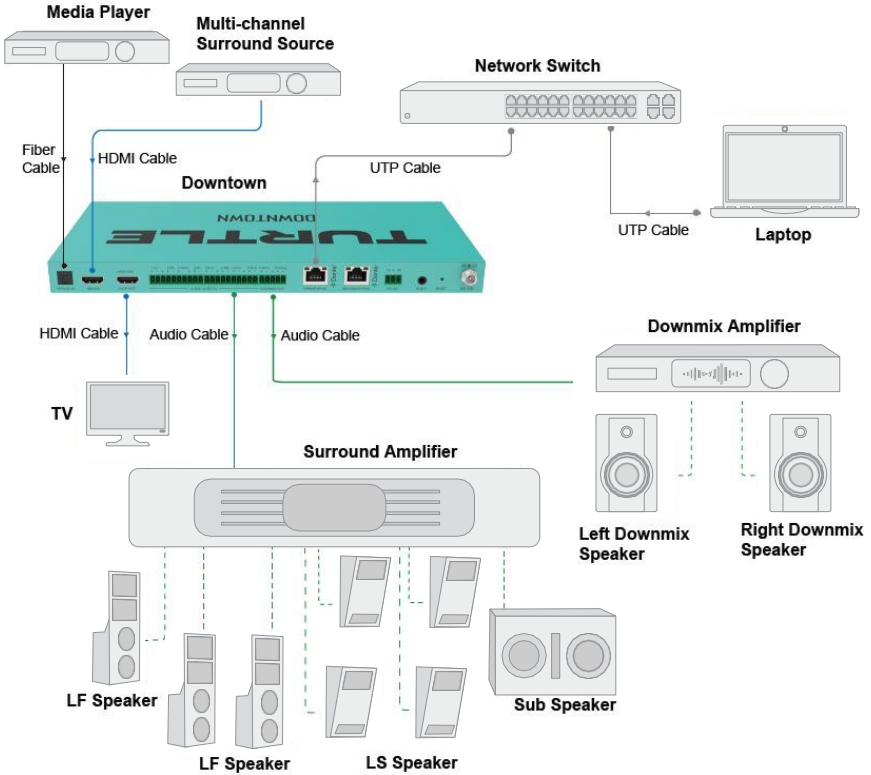
TCP/IP  Telnet  MAC (PRIMARY)      MAC (SECONDARY)
8000    0023    6C:DF:FB:0C:B3:8E  6C:DF:FB:0C:B3:8A

Primary
DHCP    IP          Gateway      SubnetMask
On      192.168.062.111 192.168.062.001 255.255.000.000
(Static: 192.168.000.100 192.168.000.001 255.255.000.000)

Secondary
DHCP    IP          Gateway      SubnetMask
On      192.168.062.110 192.168.062.001 255.255.000.000
(Static: 192.168.000.200 192.168.000.001 255.255.000.000)

=====
```

10. Connection Diagram



Dolby Atmos

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