

Dual 4K

intelligent interactive splicing platform

Hero 1000

Instruction

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Statement

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Version Information

Version: v1.0

Release Date: September 2019

Safety instructions

	<p>Power supply The normal working power of this equipment is 100 ~ 220V AC, please make sure to use this product within this voltage range.</p>
	<p>High voltage This device contains high voltage components.</p>
	<p>Non-professionals do not disassemble This equipment is not equipped with maintenance accessories for users to repair and use by themselves, please do not open the case for operation by yourself. Disassembly by yourself may cause irreparable damage to the equipment. If repair is required, please contact the after-sales personnel.</p>
	<p>Ensure good grounding In order to protect the personal safety of the user, before use, please ensure that the power cable is well grounded.</p>
	<p>Keep away from strong magnetic fields, engines and transformers In order to ensure the normal use of the equipment, please keep away from strong magnetic fields, engines and transformers.</p>
	<p>Pay attention to moisture Keep the use environment dry. If the device is wet accidentally, do not connect it to the power supply. Dry the device before using it.</p>
	<p>Keep away from explosives Don't use this product in a flammable or explosive environment.</p>

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1、Product introduction

Hero 1000 is a pinch processor designed for live performance LED screens. Adopt the industry's top design technology and meet international and industry standards. Support dual 4K @ 60hz input and touch screen operation.

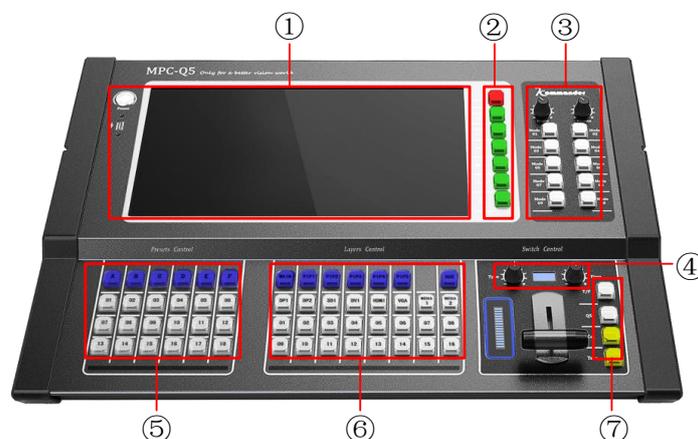
The 9.6-megapixel custom load of the whole machine meets the needs of most sites. And has a variety of stitching modes, switching modes, complete backup, safe and reliable.

This product has the following characteristics:

- Two 4K @ 60hz DisplayProt inputs, can be seamlessly connected with Kommander-F2 server, and can be used for hot backup;
- A single output port carries 2.4 million custom pixels, with a maximum width of 4000 and a maximum of 2000. The machine carries 9.6 million pixels;
- Support the use of touch screen, feedback buttons and directional faders to achieve device debugging and video playback;
- Support internal storage and external USB dual-channel video independent playback, and backup with external signals to ensure safety;
- Support scene pre-editing, one-click special effect push to prevent misoperation;
- Supports control of Kommander T1, which can control T1 switching plan;
- Support real-time capture output as the main KV, and automatically switch to the main KV when the signal is lost;
- In the 4-channel output stitching mode, it still supports arbitrary layout of 4 layers, which solves the pain points of the industry;
- Support more than ten kinds of scene switching special effects such as straight cut, fade in and fade out, support one-click push and push push;
- All layers support matting, transparency adjustment, and arbitrary cropping of the signal source to present the best results;
- Support adjustment of input signal brightness, contrast, and EDID;
- Support one-button black screen, static, mute;

2 、 Hardware introduction

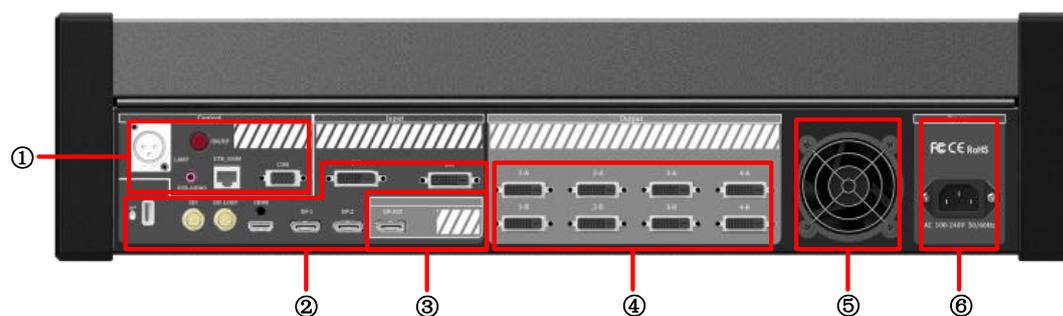
2.1 Front panel



Serial number	Button name	Function introduction
①	Power	Power key for turning HERO 1000 on or off
	USB	USB interface for U disk playback
	Full color touch screen	For equipment debugging and input / output monitoring
②	Lock	Keyboard lock key
	Touch Off	Touch screen lock button
	Media Cut	USB material switch button
	Mute	Mute key
	Black	Output black screen button
	Freeze	Output still button
	BG Top	PGM base map top button
③	Bright	Output brightness adjustment knob
	Volume	Output volume adjustment knob
	Mode 01~10	They are mode 1-10 call keys
④	Type	Toggle effect selection knob
	Time	Switching time selection knob
⑤	A~F	T1 plan selection button
	01~18	T1 scenario 1-18 call button
⑥	MAIN~PIP5	Layer 1 to Layer 6 keys
	AUX	Inverted function buttons
	DVI~DP2	DVI-DP2 input port selection buttons
	MEDIA1~2	U disk button and internal storage button
	01~16	Represents 16 materials that can be directly recalled by U disk or internal storage

⑦	T/F	T1 select button
	HERO 1000	HERO 1000 selection button
	Cut、Take	Straight cut, magic cut keys

2.2 Back panel



Serial number	Name	Specification
①	LAMP	Gooseneck lamp socket for powering the gooseneck lamp
	ON/OFF	Gooseneck light power switch
	USB-AUDIO	Audio output port, output audio from USB signal source
	ETH-100M	RJ45 interface for 100M Ethernet port control equipment
	Com	RS232 interface for serial control equipment
②	USB	USB socket for mouse
	SDI+LOOP	SDI interface, support HD / SD / 3G-SDI
	HDMI	1920 * 1080 @ 60hz and backward compatible, compatible with HDMI 1.3 and below
	DP*2	3840 * 2160 @ 60hz and backward compatible, comply with DP1.2 standard resolution
	DVI*2	1920 * 1080 @ 60hz and backward compatible
③	DP-AUX	Look at the interface, you can look at any signal
④	DVI*8	DVI output port, backed up in pairs of 4 groups, with a maximum load of 2.4 million pixels
⑤	Fan	For cooling
⑥	Power	AC 100~240V 50/60HZ

2.3 Touch screen interface introduction



Serial number	Function introduction
①	Menu bar for debugging device stitching and other common functions
②	Layer area, you can turn the layer on and off here
③	PVW display area, where the display content can be edited
④	PGM display area, where you can monitor the actual display content
⑤	Switching area, where you can switch the display content of PVW and PGM
⑥	Signal source / plan management area, you can monitor and switch the signal source or plan
⑦	Signal source / layer parameter viewing area, where you can view and modify the relevant parameters of the signal source or layer

3、Equipment

3.1 Touch screen debugging

HERO 1000 can use the touch screen to achieve most operations, including device stitching, image opening and adjustment, signal source and plan switching.

(1) Device stitching

Click the "Screen Management" option in the upper left corner of the touch screen to enter the screen management interface. Modify the device splicing method, output resolution, and size of each output port here;



(2) Layer on and off and adjustment

On the left side of the touch screen, you can choose which layers to turn on or off. Click the eye icon on the left side of the corresponding layer to make it on or off, you can turn the layer on or off in the PVW interface.

Click the corresponding layer on the PVW interface, and the related parameters of this layer will appear on the right. Here you can debug the layer's image parameters, partial display, transparency, cutout effects, and hierarchical relationships. When setting the parameters, manually click the number area to pop up the keyboard, and then talk about numerical input. Modify the layer position consignment, you can also directly press and drag in the PVW area to achieve.

When switching signals, select the layer that needs to be switched and double-click the source below. Or long press the signal source, and then drag to the corresponding layer, you can also switch the signal of the layer.



(3) Signal source and plan settings

In the lower left corner of the touch screen, there are two options: "Signal Source" and "Plan", which can display the signal source or plan under the touch screen.

When "Signal Source" is selected, you can view the status of all current input interfaces under the touch screen. If the signal is normal, the display content of the signal source can be detected in real time. Click on a signal source, the relevant parameters of the signal will be displayed on the right side of the touch screen, including brightness, contrast, EDID, etc. If the USB signal is selected, all materials and playback progress will be displayed on the right side.



When "Plan" is selected, all the plans of the current device and the layer distribution of each plan can be viewed under the touch screen. You can call, save, update, and rename the plan in this area.



3.2 Use of keys

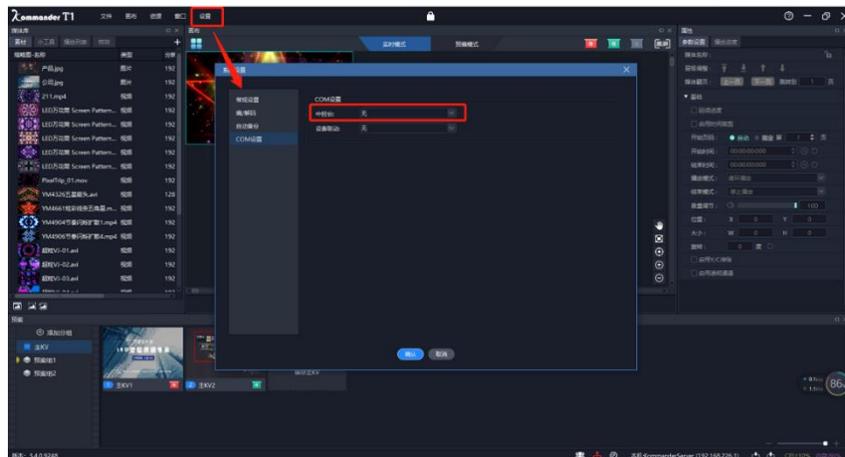
The use of HERO 1000's keys is mainly divided into two parts, one is for the operation of HERO 1000 itself, and the other is for HERO 1000 control of T1.

(1) Control HERO 1000 itself

For HERO 1000 debugging, it mainly focuses on calling plans and switching signals. As mentioned earlier, the lower part of the device is the layer and signal buttons, and the upper right is the plan button. Click the plan button directly at the top right to switch the plan. You can switch 10 plans directly. Click the layer button, and then click the signal source, you can switch the signal source of this layer; you can also switch the material of the USB signal.

(2) Control T1

The bottom left button of the device can be used to control the use of Kommander T1 call mode. The debugging steps are: First use a USB to RS232 cable to connect the computer to the HERO 1000; open the computer device manager to see if the serial port is recognized; open T1, click "Settings-System Settings-COM Settings-Center Console" and select the matching device manager com port, click OK; on HERO 1000, first select the plan group, and then switch the corresponding plan.



4、 Other functions

4.1.USB Play

HERO 1000 supports offline playback function, can read videos and pictures in U disk; HERO 1000 itself also has a large storage space, you can copy material files in U disk to HERO 1000's internal storage. The playback interface of the USB flash drive is as follows:



Click on the USB signal source, the current status of the USB signal source is displayed on the right side, which is divided into three parts:

The bottom part is used to view the material list stored in the HERO 1000 or U disk, and the edited playlist. Click on the material to add it to the pre-playlist interface;

The middle part is the pre-playlist. If the current PGM has a USB signal source being played, the changed material will be added here first. Click the push button on the right to complete the switching of the material. You can also click the delete button to clear the current pre-play content;

The top part is the current playlist. The displayed content is the material played by the current USB signal source, as well as the playback progress. Press and hold on the playback progress to achieve fast forward and rewind. On the right side of this area, you can control the pause, stop and volume of USB material playback.

HERO 1000 supports mutual copy of U disk and internal storage materials. After inserting the USB disk, click the "Media Library" button in the menu bar and select "File Management", and the interface as shown in the figure below will pop up. The left side is the internal storage, and the right side is the U disk list. Select the file and click the two buttons in the middle to complete the copy of the material. You can also delete the material through the "Delete" button

in the lower left corner.



HERO 1000 also supports the video images to be played into a playlist, and the materials in the list are automatically looped. Can reduce mistakes caused by artificial switching materials. Click "Media Library" in the menu bar and select "Playlist" to enter the playlist interface, as shown in the figure below. After clicking "New", you can add the materials you want to play to the playlist, and you can adjust the number, time, and order of the materials.



4.2. Basemap settings

HERO 1000 can capture the PGM output signal in real time as a point-to-point basemap display, and the basemap can be saved in the device and can be recalled at any time.

Click the "Basemap" button in the menu bar. There are three options: grab the basemap, save the basemap, and reload the basemap:

Grab basemap: Take the current PGM picture completely and display it as a point-to-point basemap;

Save basemap: The basemap to be captured is saved in the device and can be called at any time;

Reload basemap: reload the previously saved basemap

4.3. Signal look back

Through the DP-AUX interface on the back of the device, you can see the content of any signal on the display. Settings can be operated using keys and touch screen.

Button operation: When the AUX function is turned off, the button light goes out; click the AUX button, and the button and the source button flash together, you can select the signal source that you want to look back at; after the selection is complete, click the AUX button or wait for a period of time. Keep the AUX button on, and check the source of the signal.

Touch screen operation: Under the "Settings" option in the menu bar of the touch screen, select "Reverse Look", and then select the signal source that needs to be reversed.

5、 Technical Parameters

Video input signal		
Types	Quantity	Explain
DVI-D (24+1)	2	·Maximum supported resolution is 1920 × 1200 @ 60Hz, backward compatible ·Compatible with HDMI 1.3 and below, EDID version 1.3
HDMI (TYPE A)	1	·Maximum supported resolution is 1920 × 1200 @ 60Hz, backward compatible ·Compatible with HDMI 1.3 and below, EDID version 1.3
DVI (HD-15)	1	·Maximum supported resolution is 1920 × 1200 @ 60Hz (UXGA), backward compatible
SDI	1	3G-SDI, compatible with 1080P / 1080I signal input
DP	2	3840 × 2160 / 60HZ and other resolutions compliant with DP1.2

Video output signal			
Types	Quantity	Explain	
DVI-D (24+1)	8	Support common output resolutions such as: 2048 × 1152 @ 60Hz, 1920 × 1080 @ 60Hz ·Support custom output resolution, such as 3840 × 640 @ 60Hz Support 60Hz / 50Hz / 30Hz output frame rate Compatible with HDMI 1.3 and below, EDID version 1.3 4 main outputs, 4 backup outputs	
DP-AUX	1	Supports reverse look at any input signal	
SDI-LOOP	1	3G-SDI loop-out, compatible with 1080P / 1080I	
Feature description			
Scene pre-editing	Support scene pre-editing, one-click special effect push to prevent mis operation		
Grab the master KV in real time	Supports real-time grabbing output as the main KV, and automatically switches to the main KV when the signal is lost		
Dual DP 4K @ 60HZ	Support two 4K @ 60Hz Display Port input signal hot backup		
Link with Kommander T1	Support linkage with Kommander T1 to control T1 switching plan		
Output four main four backup	Output four main four backup, easy to build a backup system		
Touch screen debug monitoring	Touch screen for all operations and monitor all input and output screens simultaneously		
Custom EDID	Two 4K @ 60Hz Display Port inputs, support custom EDID, can lock the point-to-point resolution of the signal source output, ensure the picture clarity from the source		
4 pictures roaming freely	Arbitrary layout of 4 layers is still supported in 4-port stitching mode, solving industry pain points		
USB play	Support U disk reading and playback of internal storage materials, and support mutual copy of U disk and internal storage materials		
Three stitching combinations	Supports three stitching modes: horizontal, vertical, and field, with a maximum load of 16,000 points and a maximum of 8000 points		
Support TAKE, CUT and fader switching	Supports more than ten kinds of scene switching effects such as straight cut, fade in and fade out, push one-click Take and Cut, support the use of fader special effect switching		
Brightness cutout	All layers support matting, transparency adjustment and edge feathering for best results		
Brightness, contrast, EDID settings	Supports separate adjustment of brightness, contrast and EDID for input signals		
Mode save and recall	Users can save up to 32 different setting parameters, and can quickly recall		
One-click black screen / screen freeze	One-click output black screen or frozen picture, often used in performing arts activities		
Other			
PC control method	RS232 / RJ45 Ethernet	Size (mm)	160 (H) × 615 (L) × 436 (D)
Weight (Kg)	8	Input power	100-240VAC, 47-63Hz, ≤2A
Working environment	Temperature 0-40 °C; humidity 0-95%	Warranty period	Free maintenance for 2 years, lifetime maintenance