



# 4K Splitter with Switch

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## LM-SP420

### User Manual

For the safety of you and equipment, please read the safety instructions carefully before using this equipment. If you have any queries in use, please read the instructions first. A detailed description of device operation is provided in the main body. If there is still doubt, please contact us. We will give you a satisfactory reply as soon as possible.

If there is any change in the instruction manual, without prior notice, please understand.

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## Chapter 1. Installation instructions

1	<b>Power adapter</b>	This equipment supports 100-240V AC input. In order to make the equipment work properly, please do not replace our standard power adapter easily.
2	<b>Power off</b>	Turn off all the power supply, unplug the power plug, etc. to ensure the safety of you and the equipment.
3	<b>Cables</b>	It is not possible to place objects on power lines, signal lines, communication lines and other cables. Cables should be avoided from being trampled or squeezed to prevent leakage or short circuit.
4	<b>Signal cables</b>	When the signal line is inserted or pulled from the equipment, the equipment needs to be cut off so as not to damage the equipment. If not, The damage is not in warranty
5	<b>Heat dissipating hole</b>	There may be openings on the outside surface of the equipment for heat dissipation. Do not block these openings to avoid heat accumulation, damage to the equipment or cause fire hazards.
6	<b>Equipment placement</b>	Equipment should be reasonably placed, such as standard rack, chassis, cabinet, or placed on a stable and flat work table to prevent equipment from falling.
7	<b>Environment</b>	The environment of equipment should pay attention to dust proof and moisture proof, especially prevent liquid from soaking and splashing into the equipment.
8	<b>Repair</b>	All maintenance work should be done by professional maintenance personnel. Do not attempt to repair equipment without training. To avoid the danger of electric shock, do not unlock the case.
9	<b>Safety precautions</b>	<p>1, there is electricity inside the equipment, non professional maintenance personnel shall not open the chassis, in order to avoid any danger.</p> <p>2, strictly prohibit water droplet or water splashing, strictly prohibit putting any liquid container container on the equipment.</p> <p>3, in order to prevent fire, the equipment should not be near the fire source.</p> <p>4, in order to fully ventilate, the front and back panels of the equipment should maintain at least 20CM gap.</p> <p>5, If the equipment makes strange noise, smoke or odor, the power plug should be unplugged immediately and handled by professional maintenance personnel.</p> <p>6, in case of thunder or long absence, please unplug the power supply.</p>

	<p>7, do not plug any object from the ventilation hole of the equipment, so as to avoid damage to the equipment or electric shock.</p> <p>8, it is not suitable to place this equipment in near water or other damp places.</p> <p>9, it is not suitable to place this equipment near heat sink or other high temperature places.</p> <p>10, please properly arrange the power cord to prevent breakage.</p> <p>11, under the following circumstances, the power plug of this equipment should be removed and handled by professional maintenance personnel.</p> <ol style="list-style-type: none"> <li>1) when the plug power cord is damaged or worn;</li> <li>2) when liquid splashes into the equipment.</li> <li>3) when the equipment falls or the chassis is damaged.</li> <li>4) when the equipment has obvious functional abnormalities or performance changes;</li> <li>5) Regularly check whether the fan is working properly, if the fan is not working, it should be immediately unplugged and switched off the power supply of the equipment, handled by professionals.</li> </ol>
<p><b>This equipment is not suitable for non professionals to operate and debug. Users must receive professional training and guidance.</b></p>	

## Chapter 2. Product overview

This equipment is a multi-functional UHD video processor, a single device can complete multi-signal switching, signal distribution, signal amplification and so on. The product supports 4 channels of HDMI signal input, N channels of HDMI signal output, input and output signals up to 3840\*2160@30Hz UHD. At the same time, all input signals of the product can support synchronous switching between video and audio.

## Features

- 1, support 4 channel HDMI1.4 input, the maximum resolution can reach 3840\*2160@30Hz or 4096\*2160@24Hz;
- 2, support HDCP1.4 to solve blue DVD signal.
- 3, any HDMI signal can be selected to output to multiple screens.
4. Modular designed. The output can be customized according to the actual situation of customers. The single machine supports 4-20 channels of customized output.
- 5, output resolution is input resolution, up to 3840\*2160@30Hz or 4096\*2160@24Hz;
- 6, the maximum output distance can reach more than 20 meters.
- 7, the adoption of the standard 19 inch 1U chassis, 100-240V AC input, universal national.

### 2.1 Technical parameter

Name	Specifications
Input signal	
HDMI signal	HDMI1.4(HDCP1.4)
Output signal	
HDMI output	4-20 channel HDMI output
Other	
Control	Key panel, Remote control, RS-232 serial port
Power supply	AC100-240V
Power waste	60W Max.
Size	
Dimension	440mm(L) x240mm(D) x44mm(H)
Weight	3.5Kg

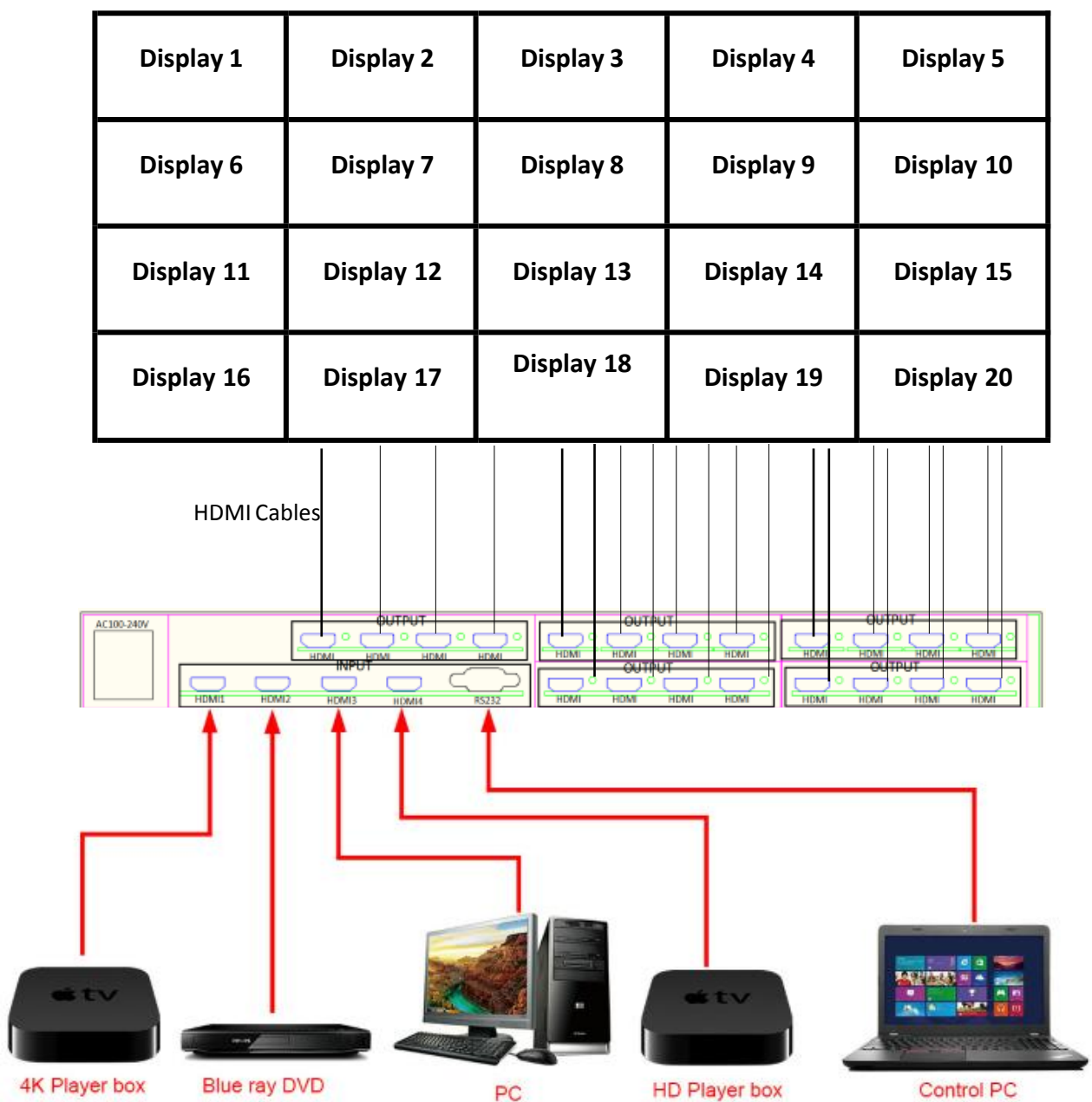
## 2.2、 Control protocol

Baud rate: 9600      Data bit: 8      Check bit: None      Stop bit: 1

HDMI1: 1S0                      HDMI2: 2S0

HDMI3: 3S0                      HDMI4: 4S0

## 2.3、 Product topological graph



### Chapter 3. Panel operation introduction



①	LED light (Current channel have signal, the light is on, if not, is off)	②	Remote control receiver
③	HDMI1 input signal	④	HDMI2 input signal
⑤	HDMI3 input signal	⑥	HDMI4 input signal
⑦	Power on/off		

## Chapter 4. Introduction of remote control operation

