

KT120

Video Processor

Specification V4.0



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1 Update Records

Document Version	Hardware Version	Release Time	Update Record
V4.0	KT160 (V1.0.0)	July 28(th), 2025	First release

2 Product Introduction

KT120 is the video processor that produced by Mooncell, it supports 12 Network Output Ports, supports 4K Ultra HD display, The maximum loading capacity could reach up to 7.8 million pixels, with powerful processing ability, super reliability and high cost performance.

3 Product Characteristics

3.1 Improve the display effect

- Multiple input interfaces
 - 1×HDMI2.0、1×DP1.2 (Choose one of the two)
 - 1×HDMI1.4
 - Supports 3840×2160@60Hz resolution input
- Output interface
 - 12 Gigabit Ethernet ports, supporting 7.8 Million pixel output resolution; maximum width up to 15360 pixels, maximum height up to 7680 pixels.

3.2 Control Interface

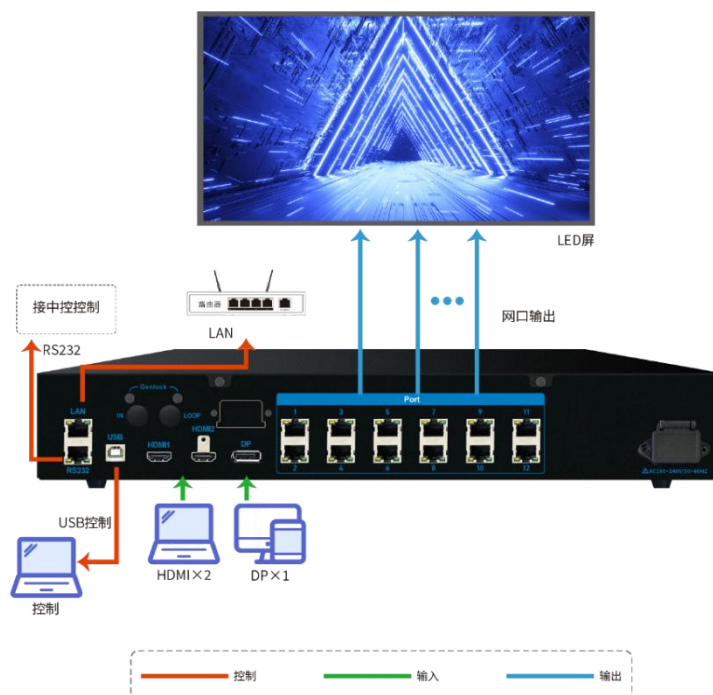
- Supports RS232 serial port and network control protocol operation
- Supports USB and LAN network debugging methods
- Supports Screen Manager software control

3.3 Diversified Display Function

- Supports GenLock synchronization (optional)
- Supports frame rate conversion
- Supports signal source synchronization
- Supports multi-device display splicing
- Supports internal data self-check; no debugging required when replacing receiving cards
- Supports flexible network cable routing; non-rectangular load distribution
- Supports full-screen and pixel-to-pixel one-click switching; supports image cropping, scaling.
- Supports offline brightness adjustment and key lock functionality
- Supports custom input EDID
- Supports hot backup functionality
- Supports host software monitoring of sending card operating parameters and status
- Supports configuration parameter readback
- Supports Gigabit Ethernet error rate detection

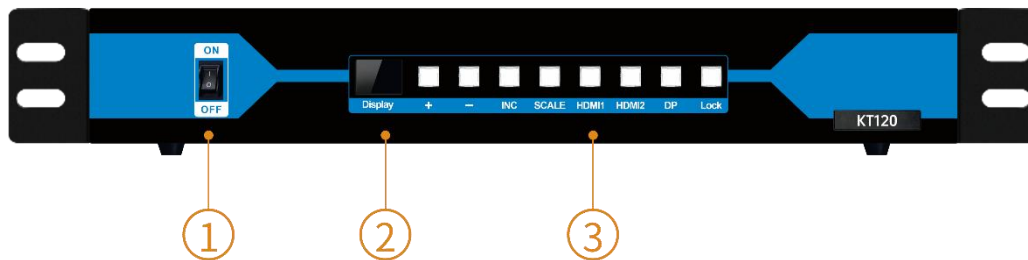
4 Application Scenarios

The KT120 delivers an exceptional visual experience, intuitive operation, and outstanding value for money; it offers significant advantages for entertainment venues such as bars and KTV establishments.



5 Product Appearance

Front Panel



*Product images are for reference only. The actual product shall prevail upon purchase.

5.1 Data Interface Illustration

#	Key	Illustration
1	Switch	Power Switch
2	Digital tube	Display screen brightness values 0-FF represent 0-100%.
3	Function Button	● +: Brightness increase (no indicator light); press once to add 1, press and hold to accumulate continuously until released to execute. ● -: Brightness decrease (no indicator light); press once to subtract 1, press and hold to accumulate continuously until released to execute. ● INC: Inspection 1, short press the key, INC indicator light flashes fast, the sending card has been patrolling the receiving card offset; when the INC indicator light flashes fast, press the key, INC indicator light out immediately release the key, INC indicator light no longer flashes fast, the inspection function is closed. 2、 Long press the key for more than 3S and then release it, INC indicator light will flash slowly, and the sending card will start to inspect, and the contents of the inspection will be all the contents of the inspection configured by the host computer (receiving card network port offset, receiving card parameters, sending card parameters). End of the inspection, INC indicator off. 3、 Press and hold the button for more than 10s and then release it, the INC

		indicator light will be always on, and the contents of the inspection will be saved (receiving card offset, receiving card parameter, receiving card gamma, sending card parameter), do not carry out any other operation during the process of curing. When curing is finished, the INC indicator turns off. 4. The above operations are performed when AutoLED is not connected. 5. The above functions can only take effect after the master control cures the data and then saves the inspection parameters. SCALE: One-click to switch between Full Screen and Point-to-Point. HDMI1 (with indicator): Steady on: Signal present and selected; Steady off: No signal; Flashing: No signal present but selected. HDMI2 (with indicator): Steady on: Signal present and selected; Steady off: No signal; Flashing: No signal but selected. DP (with indicator): Steady on: Signal present and selected; Steady off: No signal; Flashing: No signal but selected. LOCK (with indicator): Key lock: Indicator steady on means keys are locked; Long press to turn indicator off and unlock.
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Note:

1. To prevent accidental activation, the device locks the buttons by default upon power-up.
2. When buttons are locked, button operations are ineffective; unlocking is required for button functions to take effect.

Rear Panel

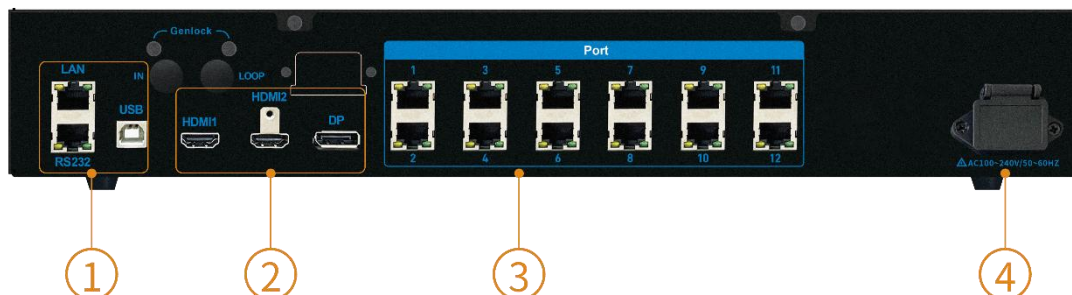
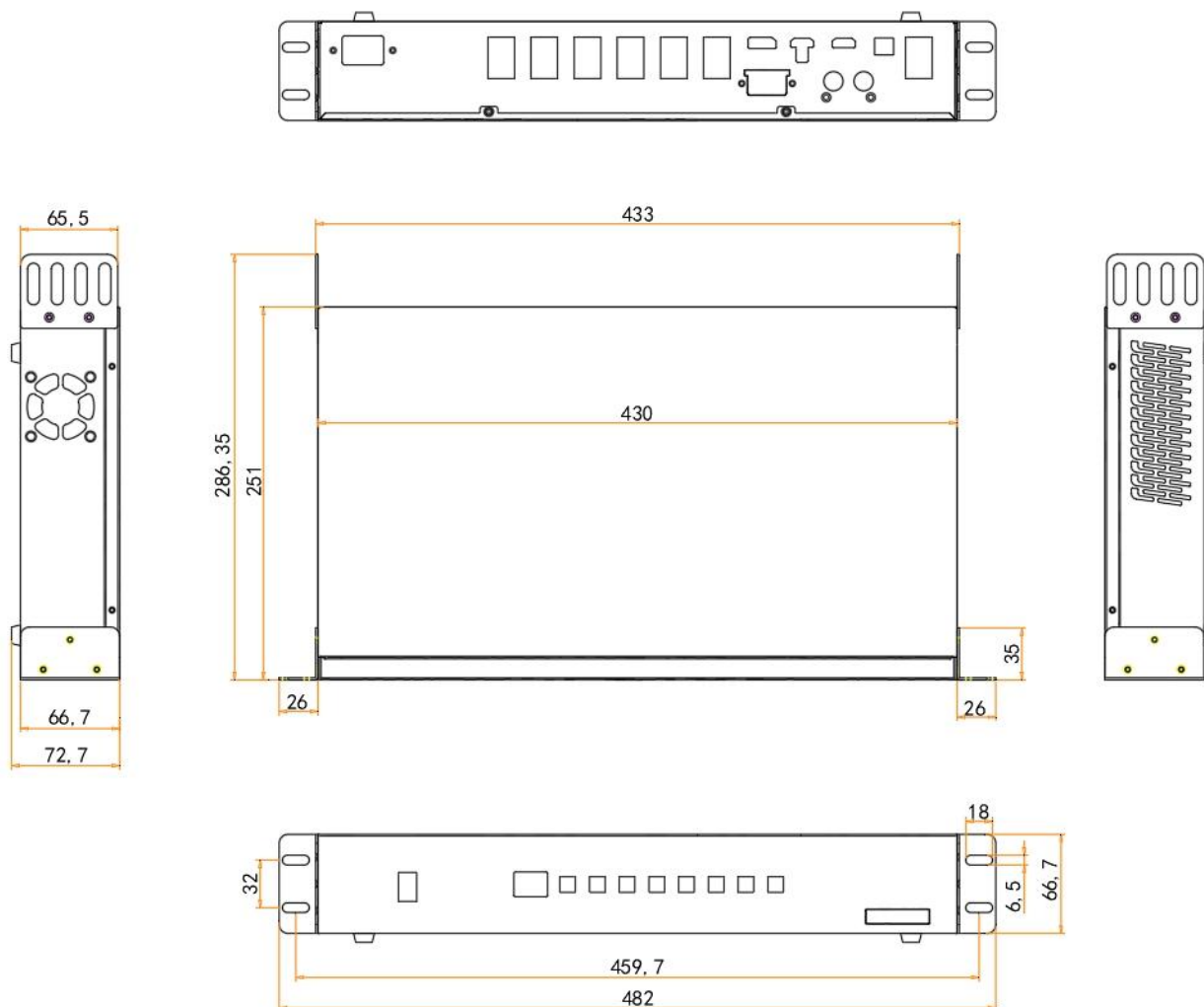


Illustration			
Input Interfaces			
#	Interfaces	QTY	Illustration
2	HDMI1	1	HDMI 1.4 × 1 Input Port Port Type: HDMI Type A Signal Standard: HDMI 1.4 (backward compatible) Resolution: 3840×2160@30Hz Supports 8-bit color Does not support audio
	HDMI2	1	HDMI 2.0 × 1 Input Port Port Type: HDMI-A Signal Standard: HDMI 2.0 with backward compatibility Resolution: VESA standard, ≤3840×2160@60Hz Supports 8-bit color Does not support audio
	DP	1	Interface Type: DisplayPort Signal Standard: DisplayPort 1.2, backward compatible Resolution: VESA standard, ≤3840×2160@60Hz Supports 8-bit color Does not support audio
	Note: HDMI 2.0 or DP 1.2 (choose one)		
Output Interfaces			
#	Interfaces	QTY	Illustration
3	Gigabit Ethernet port	12	Gigabit Ethernet output port
Control Interface			
#	Interfaces	QTY	Illustration
1	USB	1	USB-B×1: Connects to a computer for device debugging
	LAN	1	LAN×1: Supports 100Mbps Ethernet communication for cloud connectivity, network debugging, and central control integration
	RS232	1	Integrates with central control devices
Extended Interface			
#	Interfaces	QTY	Illustration
/	Genlock（Optional）	1	Genlock control interface, one input channel, one loop-through output channel
Power			
#	Interfaces	QTY	Illustration
5	Power	1	AC 100≈240V 50/60Hz

5.2 Dimensions



Tolerance: ± 0.3 Unit: mm

6 Product Specification

6.1 Basic Parameters

Loading capacity	Single network port	Maximum load capacity: 655,360 pixels. Network port load capacity (width $\times$ height): 1280 $\times$ 512.
	Whole Unit	7.80 million Pixels
Output resolution	Pixels are controlled within 7.80 million points Widest: 15360 Highest: 7680	
Input resolution	Maximum support 3840 $\times$ 2160@60Hz resolution video source input, backward compatible	

- *Note: 1. The load capacity of a network port depends on its load-bearing method, with port bandwidth being directly proportional to load capacity. It is recommended to use a load-bearing method with a wider port bandwidth, as ports with bandwidths that are multiples of 960 achieve the highest utilization rates.
2. This model does not support T6 series receiving cards.

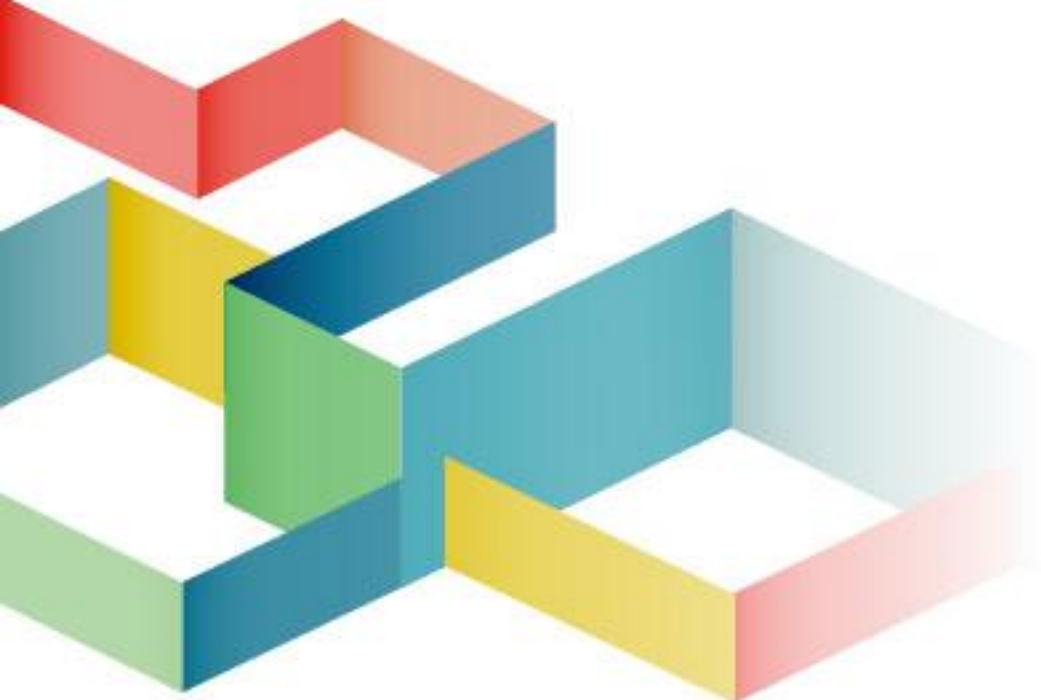
6.2 Specification

Electrical Parameters	Rated voltage	DC 12V
	Rated power	25W
Working Environment	Operating temperature	0°C~50°C
	working humidity	5%RH~85%RH non-condensing
Storage Environment	Storage temperature	-10°C~60°C
Chassis size	1.5 U Chassis, 482mm×286.35mm×72.7mm	
Net weight	3.1Kg	
Outer box size	515×130×355mm	
Accessories	1× Power Cord, 1× USB 2.0 Cable, 1× HDMI Cable, 1× Certificate of Conformity & Packing List, 1× DP Cable	
Gross weight	4.2 Kg Description: Including accessories and packaging materials	
Packing method	3 PCS/Carton	
Certificate	CE, ROHS, FCC	

*Current and power consumption may vary depending on factors such as product usage, environment, and settings.

7 Precautions

- High voltage hazard: This product operates at AC 100V~240V.
- Do not allow liquids or metal fragments and other conductive materials to enter the device, to prevent safety accidents.
- Please use the device in a dry and clean environment.



National after-sales services hotline: 400-881-3531

Official website: www.mooncell.com.cn

Address: Mooncell Building, Third Industrial Zone, Baoshi
South Road, Shiyan Street, Baoan District, Shenzhen

