

KT20

Video Processor

Specification V4.0



CONTENT

1 Update Records	1
2 Product Introduction	1
3 Product Characteristics	1
3.1 Improve the display effect	1
3.2 Diversified Display Function	2
4 Product Appearance	2
4.1 Data Interface Illustration	2
4.2 Dimensions	6
5 Product Specification	7
5.1 Basic Parameters	7
5.2 Specification	8
6 Precautions	8

1 Update Records

Document Version	Hardware Version	Release Time	Update Record
V4.0	KT20 (V1.0.1)	July 25(th), 2025	First release

2 Product Introduction

KT20 is the video processor that produced by Mooncell, it supports 2 Network Output Ports. The maximum loading capacity could reach up to 1.3 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 × HDMI1.3 video signal input
 - 1 x USB 2.0 input
- EDID
 - Support custom EDID management
- Output interface
 - 2 gigabit network ports, support up, down, left and right arbitrary splicing
- Audio interface: Support audio input and output

3.2 Diversified Display Function

- Support U disk playback, plug and play
- Support network port loop backup, dual master backup
- Support for configuration parameter readback
- Support Gigabit network error bit rate detection
- Support image scaling

4 Product Appearance

Front Panel



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

4.1 Data Interface Illustration

#	Name	Illustration
1	Switch,	Power Switch
2	INC	INC KEY
3	USB	USB KEY
4	HDMI	HDMI KEY

5	Control	USB (B Type) for debugging
#	Indicator	Illustration
6	PWR	Power indicator (red)
	INC	Inspection indicator light (green)
7	USB	U disk playback (red)
	HDMI	HDMI playback (green)

Key Illustration:

HDMI		
Key	Status	Illustration
HDMI	Everlasting	HDMI is not selected.
	Always on	HDMI selected, but no input
	Flash mob	HDMI is selected, with input and frame synchronization.
	Slow flash	HDMI selected, with input and no frame synchronization
Short press cut to HDMI		
Medium and long press the frame to switch synchronously (the light starts to flash and let go)		
USB		
Key	Status	Illustration
USB	Everlasting	USB is not selected.
	Always on	USB is selected, but there is no input
	Flash mob	Output video mode
	Slow flash	Output image mode
Press to switch to USB playback		
Medium and long press the input mode to switch (the light starts to flash and let go)		
Long press (let go when the light is always on)		

U disk upgrade V53 (if the V53 light does not flash, it means the upgrade starts, and the V53 flashes again to complete the upgrade)		
INC (do not plug in the USB cable during inspection)		
Key	Status	Illustration
INC	Indicator light state	Key locked
	everlasting	No inspection
	Slow flash	Quick inspection
	Always on	Inspection and preservation
Short press: Quick inspection to open or close		
Medium and long press (the light starts to flash and let go): The inspection is not saved.		
Long press (let go when the light is always on): patrol and save (longer time)		
Key Lock		
Key	Status	Illustration
Key lock (with common indicator light for inspection)	Light on	Key locked
	Light off	Key to unlock
Unlock the button lock: Press and hold the 4~ 5sINC button until the INC indicator light breathing flashes and goes out.		
The device has no operation for 2 minutes, the automatic lock button, the INC indicator light breathing flashes, and the status button is locked.		
Automatic lock button when the device is powered on.		
Attention:		
1. In order to prevent accidental triggering, the machine locks the button by default when powered on.		
2. The button lock state The button operation is invalid. The button switching function will not take effect until it is unlocked.		

Rear Panel

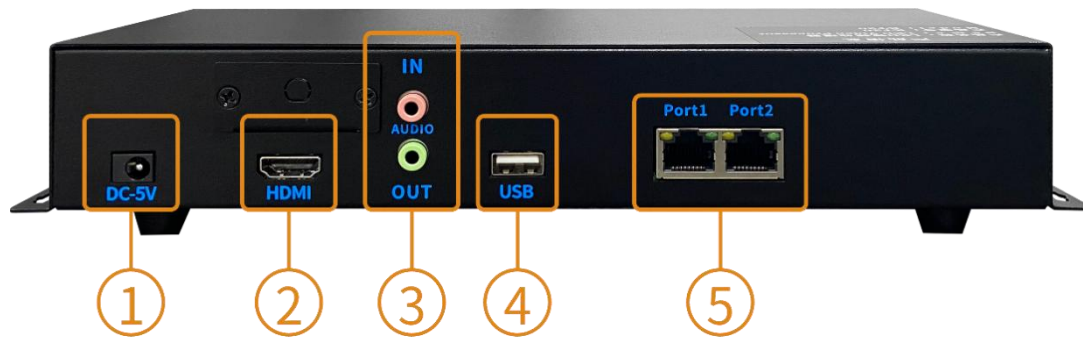
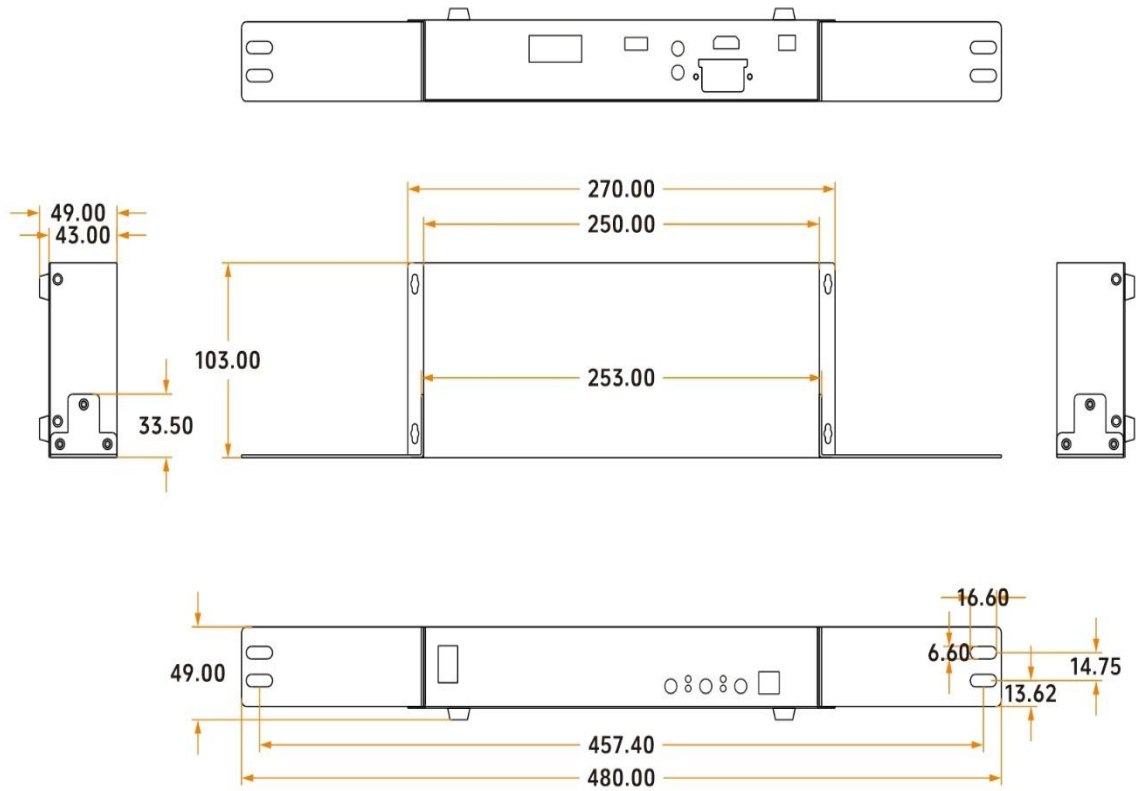


Illustration			
#	Interface	QTY	Illustration
1	DC-5V	1	External adapter power supply
2	HDMI	1	1 × HDMI1.3 standard video source input, supports up to 1920 × 1080@60Hz resolution
3	AUDIO IN	1	3.5Mm audio interface input
	AUDIO OUT	1	3.5Mm audio interface
4	USB	1	U disk input; 1 × USB 2.0 interface, connect U disk, support 1080p@30fps Video file. The U disk file system supports NTFS, FAT32 and FAT16, but not ExFAT (FAT64). Image file formats: jpg, jpeg, png, and bmp. Video encoding: MPEG1/2, MPEG4, Sorenson H.263, H.263, H.264 (AVC1), H.265 (HEVC), RV30/40, Divx, Xvid. Video bit rate: 4000 or less Audio Coding: MPEG1/2 Layer I, MPEG1/2 Layer II, MPEG1/2 Layer III, AAC-LC, VORBIS, PCM and FLAC.
5	Network Port	2	2 Gigabit network port output, connect the receiving card

4.2 Dimensions



Tolerance: ± 0.3 Unit: mm

5 Product Specification

5.1 Basic Parameters

5.1.1 Conventional Version

Loading capacity	Single network port	Maximum load 655360 pixels, network port load (width × height) 1280 × 512
	Whole Unit	1.30 million Pixels
Output resolution	Pixels are controlled within 1.30 million points Widest: 3840 Highest: 1920 When the number of horizontal points exceeds 1920, the number of vertical points must be within 1080 When the number of vertical points exceeds 1080 points, the number of horizontal points is controlled within 1080 points	
Input resolution	Maximum support 1920 × 1080@60Hz resolution video source input, backward compatible	

5.1.2FPGA Scaled Version

Loading capacity	Single network port	Maximum load 655360 pixels, network port load (width × height) 1280 × 512
	Whole Unit	1.30 million Pixels
Scale window size (output resolution)	Pixels are controlled within 1.30 million points Widest: 7680 Highest: 7680	
input resolution	Maximum support: 1920 × 1080@60Hz resolution video source input, backward compatible	

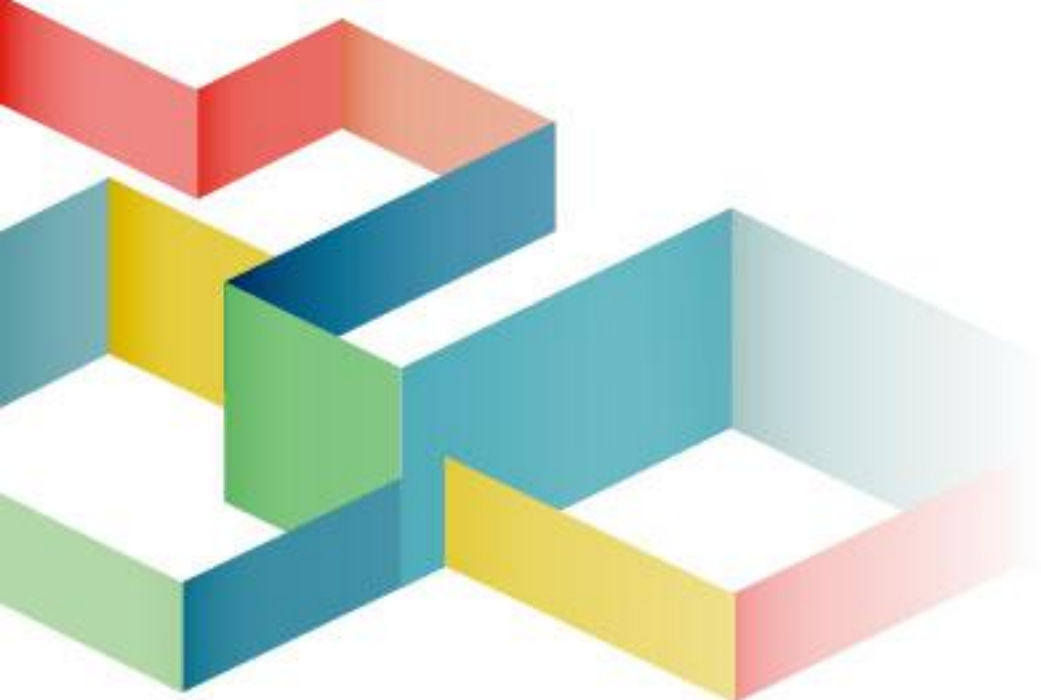
5.2 Specification

Electrical Parameters	Rated voltage	DC 5V
	Rated power	3W
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	480mm×103mm×49mm	
Net weight	0.65Kg	
Outer box size	280×170×95mm	
Accessories	1 × 5V power adapter, 1 × USB cable, 1 × HDMI cable, 2 × hangers, 1 × certificate	
Gross weight	1.23Kg Description: Including accessories and packaging materials	
Packing method	13 PCS/Carton	

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

6 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

