# **Specification of interactive flat panel**



Product Categories: Interactive flat panel Product Model: 65M5APro Date: 2022.01

#### 1. Product characteristics

- 1.1 System properties:
- Equipped with Android 11 Smart OS and a unique user interface design;
   8GB internal cache + 64GB internal storage, for faster operating speeds;
- 1.2 Exterior and smart touch:
- Grey-color business appearance, four-corner arc design, safe and reliable; front USB interface that can be shared by dual systems, convenient operation;
- There are 2 USB ports available in the front of board which support dual operating system, and 1 Type-C port, which is convenient to operate;
- The distance between the tempered glass and the screen is close to 0, which can effectively prevent light reflection, the display effect and the writing experience are excellent;
- High-precision infrared touch frame, touch accuracy ±1mm, touch height 2.0mm, support 20-point touch, high sensitivity;
- With OPS interface, it can expand dual system; dual network port design can realize switch function;
- 1.3 Whiteboard writing:
- Support single-point and multi-point writing, writing with a pen tip, adding colored pen effects, etc., any channel and any interface can be annotated;
- Adopt 3.2mm AG anti-glare tempered glass, Mohs hardness level 7, better writing experience;
- 1.4 Conference & Training:
- Built-in 13 Megapixel camera and 8-channel array microphone, making remote meetings more convenient and efficient;
- Built-in NFC function, with smart pen, the whiteboard function can be called up at any time;
- Built-in 2.4G/5.8G dual-band dual-network card, supports simultaneous use of wireless Internet access and WIFI hotspot, and the antenna adopts a front hidden design;
- Bluetooth function, which can wirelessly connect to Bluetooth devices such as mobile phones/stereos to transmit data; and supports wireless connection with printing devices for printing;Huawei case+
- 1.5 Commercial Display:
- High-definition image processing engine: image motion compensation, color enhancement processing, point-to-point precision display technology;

- Full-channel output function: output real-time images with high-definition, stable and low-latency to the expansion device;
- Horion conference central management to meet the needs of different scenarios;

### 2. Main Specification Parameters

### 2.1 Specification overview:

Display		
Certification	65M5APro	
Size	64.5"	
Backlight type	D-LED	
Resolution	3840*2160 (UHD) (RGB)	
Brightness	400cd/m <sup>2</sup>	
Contrast ratio	1200:1	
Response time	8ms	
Pixel pitch	0.372mm*0.372mm	
Refreshing frequency	60Hz	
Viewing angle	178°(H) / 178°(V)	
Color gamut (x% NTSC)	72%	
View area	1428.48mm*803.52mm	
Display colors	1.07B 10bit	
Life time	50,000 hrs	
	System	
Solution	МТ9950-К8А	
Operation system	Android 11	
CPU Architecture	ARM A73	
CPU Working Frequency	1.8GHz	
CPU Core	Quad Core	
GPU	Mali-G52	
RAM	8GB	
ROM	64GB Standard	

Power		
Voltage	100 V ~ 240 V/AC, 50/60 Hz	
Power consumption without OPS	220W	
OPS Power	18V(DC)/5A	
Power consumption in standby mode	<0.5W	
Power (AC) input	*1	
	Camera	
Pixel	13M	
FOV	DIAGONAL 78°	
Focusing form	FIXED	
	Array Mic	
MIC Category	8pcs omnidirectional silicon wheat	
Pick-up Distance	8M	
Pick-up Angle	180°	
	Function	
Audio Output Power	10W * 2	
WIFI	Support	
NFC	Support	
Bluetooth	Support	
	Interface	
HDMI In	*2	
DP In	*1	
VGA In	*1	
OPS (Optional)	*1	
LAN	*2	
Туре-С	*1	
USB 2.0	*3	
USB 3.0	*2	
Touch-USB	*1	

MIC In	*1	
HDMI Out	*1	
S/PDIF Out	*1	
Audio OUT	*1	
RS232 In	*1	
	Environment	
Working Temperature	$0^{\circ}C \sim 40^{\circ}C$	
Storage Temperature	-10°C ~ 60°C	
Working Humidity	20% ~ 80%	
Storage Humidity	10% ~ 80%	
Image Model	Standard, Computer, Gorgeous, Bright, Soft, Nature, Exercise, Game, Automatic, Users	
The longest service time (Hour*Day)	18Hours*7days	
	Structure	
Net Weight	42Kg±1.5Kg	
Gross Weight	54Kg±1.5Kg(Heavy Carton)	
Product Size (W*D*H)	1511.56mm*86.08mm*907.89mm	
Package Size (W*D*H)	1660mm*245mm*1045mm (Heavy Carton)	
VESA	4-M8 Screw Hole 600mm*400mm	
Housing Material (Surface Frame /Back Cover)	Aluminum/Sheet Metal	
Housing Color (Surface Frame /Back Cover)	Gray(White)/Black	
,	Accessories	
Pen	*2	
Remote Control	*1	
Expansion Screw	*8	
USB Disk	*1	
User Manual	*1	
Certificate of quality/Warranty card	*1	
HDMI Cable	*1	

Touch Cable	*1
Power Cord	*1
USB Extension Cable	*1

2.2 The Interface Distribution:

- The right side of the back: HDMI-OUT\SPDIF\Touch-USB\USB2.0 \USB3.0 \DP\HDMI2\HDMI1;
- The right lower side of the back :LAN1\LAN2\RS232\Audio OUT\ PC-Audio\VGA;
- The left side of the front: Public-USB\Public-USB\Type-c;

### 3. Touch Frame Specifications

- 3.1 Product Overview:
  - High precision of infrared touch frame, resolution by interpolation algorithm can be as high as 32767 x32767;
  - Support Plug and Play;
  - Support 20 Points Infrared Touch;

3.2 Main specification parameters:

	Sensing Type	Infrared Touch Frame
	Surface protection	3.2mm AG Toughened glass
	Response Time	<8ms
Touch System	Touch Accuracy	More than 90% of the touch area of plus or minus 1mm
	Minimum Touch Diameter	≥1.6mm(Single-point); ≥2mm(Multipoint)
	Input Mode	Finger or Pen
	Output Form	HID Standard
	Theory Clicks	Unlimited

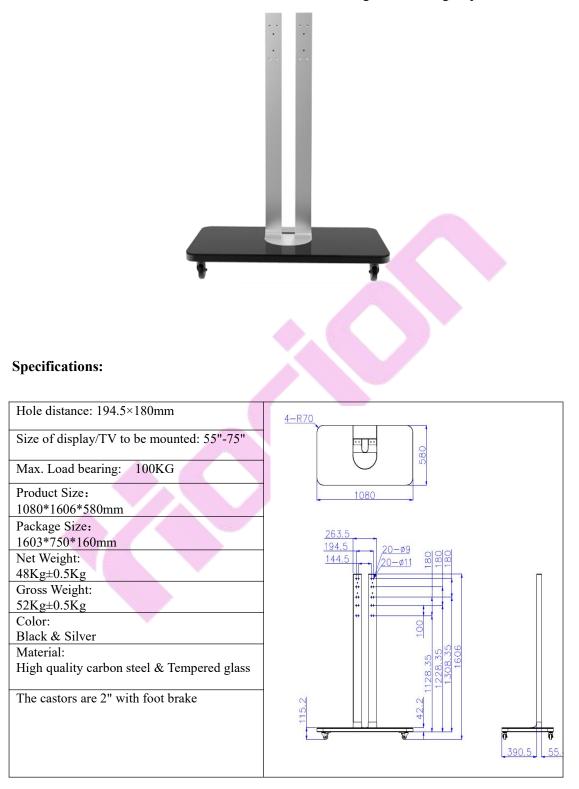
### 3.3 Electrical Specification:

Interface Type	USB3.0 at full speed
Working Voltage	DC+5V±5%
Power Consumption	≤2W

### 3.4 Operating system and software:

Multi-touch supported operating	Multi-touch: Windows 7/8/10, Android, Linux
system	Single-touch: Windows XP、 Mac OS X、 Chrome

### **Product Model: Mobile Base for Flat-panel Display HK70**

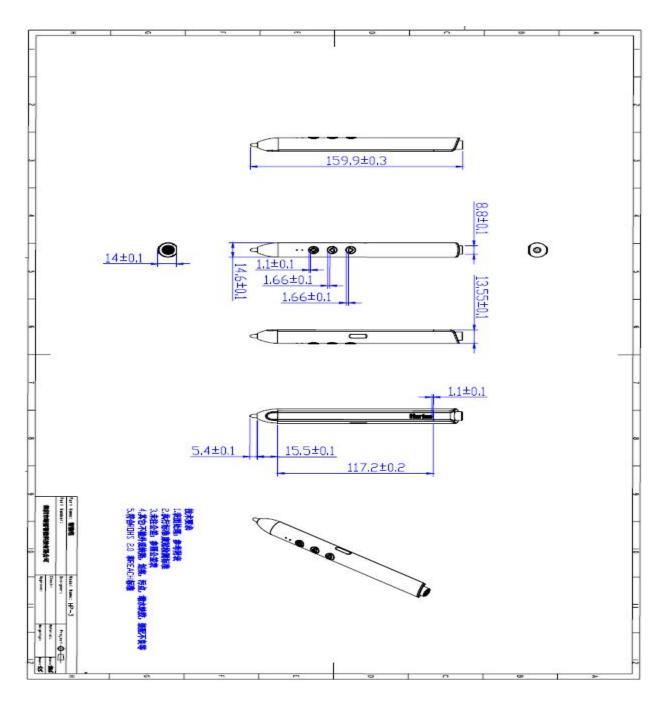


## **Product Model: Smart Pen HP-3**

**1.Product Picture:** 



### **2.**Six views of product:



### **3.Product function diagram:**

Page up / Full screen/,Exit (Long press for 1.5 seconds)

Microphone

Page down/Turn on voice (Long press) (2.4G Model)

Left mouse button (Click) /Indicative function (Long press to call out the flying mouse, release to switch off it)

LED blue light

Built-in NFC sensor chip Automatic induction calling out whiteboard Under android system: Click (One-click annotation) long press for 1.5s: spotlight, long press again to close Under Windows system:

Long press for 1.5s: highlight / magnifying glass / digital light point / pointer mode switch back and forth

Micro USB Charging port

Number	Work interface	Function description	
1	LED Indicator light	<ul> <li>Color: Blue <ol> <li>Working indication: press the key, LED light will be on, release it and off;</li> <li>Low voltage indication: when battery power is low (&lt; 3.2V), LED light flashes at high speed;</li> <li>Charging indicator: the light is always on when charging; the light is off when fully charged;</li> <li>No communication connection:light flashes slowly for about 40 seconds to enter sleep;</li> </ol></li></ul>	
2	Cap of pen	Under android system: Click (One-click annotation) long press for 1.5s: spotlight, long press again to close; Under Windows system: Long press for 1.5s: highlight / magnifying glass / digital light point / pointer mode switch back and forth;	
3	Flying mouse key	Click (left mouse button), long press (flying mouse on, release flying mouse off);	
4	Up page key	Short press (one page up); long press for 1.5 seconds (full screen / exit switch back and forth)	†Up arrow key
5	Down page key	Short press (one page down); long press (turn on voice), release to turn off it;	↓Down arrow key
6	Voice	Long press the page turning key to turn on the voice, and release to turn off;	2.4G Model
7	NFC	Pen tail near NFC sensing area of Conference Board (exhaling whiteboard);	
	Electrical properties		
8	Working voltage	3.7v/working current≤21mA; standby current ≤50uA;	
9	Communication requirements	RF2.4GHZ,Remote control distance is 15m maximum in open environment; Bluetooth is 10m;	
10	Receiver	Support USB3.0 / 2.0 / 1.1 interface;	

		Lithium battery ;	
11	Power	Low power detection and prompt;	
	management	When Vbat $< = 3.2$ V, the remote control is in low power	
		state;	

### 4. Connection mode:

- Bluetooth and 2.4G mode switching;
- Press down key and pen cap key at the same time, the light flashes, indicating that the switching function is selected;
- If you release the cap key, the light will go out. When it comes on later, you will enter the 2.4G mode;
- If you don't release the pen cap key, just release the "down key", the light will go out, and then when it's on, you will enter the Bluetooth mode;

### 5. Connection mode:

5.1 Code matching (Only 2.4G)

	Press the "up" and "down" keys at the same time, the light will flash quickly, indicating
	that the code matching function is selected; release the key to start the code matching,
Boot up code	the light will flash at a high speed; then insert the receiver into the host;
	That is, first let the page flipper enter the code matching mode, and then insert the
	receiver into the host;
Code	Code matching is successful. The blue light of the page flipper flashes at high speed
success	and then goes out;
Code failure	The blue light continues to flash, and the code checking mode will exit automatically
	after a timeout of about 30 seconds;

- When the receiver is just powered on, it has 2-3s code time;
- One to one pairing, the factory flip pen and dongle are matched by default;
- When the remote control is in sleep mode, press any key to wake up;

#### 5.2 Bluetooth connection:

- Turn the smart pen to Bluetooth mode, open the Bluetooth interface of the conference tablet, search for the device name "Horion · airpen + factory number";
- Click Connect to show that the pairing is successful after the connection;

### 6. Use scenario

- product use: intelligent touch integrated TV;
- system requirements: Windows 10 / 7 / XP, Android 4.0 or later;
- compatible interface: usb1.1/usb2.0/usb3.0/support external USB extension cable or USB hub;