

# Specification of Interactive Flat Panel



Series: Interactive flat panel

Product model: 86M6APro

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Shenzhen Horion Intelligent Technology Co., Ltd



### 1. Product features

### 1.1 System

- Built-in Android 13.0 system and optional with OPS computer module (Windows 11).
   Switch freely to meet various needs.
- 8-core CPU, 8GB RAM+128GB ROM for fast running speed and large storage space.

### 1.2 Appearance, audio and video

- Horion unique gun-color metal aluminum frame; the surface of the frame is oxidized, which has a fine texture and excellent weather resistance.
- 4K high resolution for ultra clear display and vivid details; high HDR and 72% NTSC high color gamut make colors more layered and bring an unparalleled visual experience.
- 48 MP AI camera, 102° horizontal Angle of view, compatible with a variety of video conferencing platforms; support sound localization to always focus on the speaker.
- 8-array microphone, 12 meters long distance pickup, equipped with intelligent noise reduction to make remote calls more clear, quality is guaranteed.
- 60W audio units, two 20W speakers plus one 20W subwoofer for a stunning audio effect.

#### 1.3 Whiteboard

- High precision infrared touch frame, touch accuracy up to ± 1 mm, support up to 45 touch. Highly sensitive touch technology and ultra-low writing delay make every stroke feel like it falls on the page.
- Support single point and multi-point writing, support writing with pen edge and change color. Comments can be made in any page.
- Ultra-low write latency, the writing delay is less than 30ms, which is infinitely close to natural writing.
- Using 3.2mm AG anti-glare tempered glass, even in strong light environment, the picture is still delicate and bright. Mohs hardness level 7 can be strong scratch resistance.

#### 1.4 Transmission

Built-in infrared, NFC, and light sensor modules.



- Front bi-directional Type-C port, supports bi-directional data flow, and supports 60W power ultra-fast charging.
- Wireless screen mirror, no need to install driver, computer/mobile phone can be quickly mirror to IFP.
- Randomly paired with the new Type-C dongle. Compared with the traditional USB dongle, the picture is clearer and the delay is lower.
- Equipped with Wi-Fi 6 module, the speed is 38% faster than WiFi 5. Lower latency, lower power consumption and safer transmission.
- Dual Wi-Fi module, Wi-Fi 6 for surfing and Wi-Fi 5 for screen mirror, full speed, no interference.
- The rich port can be compatible with a variety of mainstream audio and video terminals, making remote communication simpler and multi-party collaboration more efficient.

### 1.5 Commercial display

- High-definition image processing engine: image motion compensation, color enhancement processing, point-to-point precision display technology.
- Image output function: output real-time images to the expansion device with high-definition, stable and low-latency.
- Customized welcome page: massive templates to meet different usage scenarios;
- WPS office APP: document display no longer cumbersome with efficient communication;
- More applications: Timers, vote kit and other applications are convenient to operate.

# 2. Main Specifications

#### 2.1 Overview

Certified model	M6APro
Display	
Size	86"
Backlight Type	D-LED
Resolution(pixels)	3840×21 60(pixels)(UHD)
Brightness	380cd/m²



Contrast Ratio	1 200:1	
Response Time	8ms	
Pixel Pitch(mm)	0.4935(H)x0.4935(V)	
Refreshing Frequency	60Hz	
Viewing Angle	178°(H) / 178°(V)	
Color Gamut(x% NTSC)	72%NTSC	
View Area(mm)	1895.04(H)x1065.96(V)	
Display Colors	1.07B(10bit)	
Life Time	50,000hrs	
Electrical		
Chipset	A311D2	
CPU Architecture	Cortex A73+A53	
CPU Working Frequency	Max 2.2GHz for big and 2.0GHz for little	
CPU Core	Quad core A73 + Quad core A53	
GPU	Mali G52-MP8	
RAM	8GB LPDDR4X	
ROM	128GB	
OS	Android 13.0	
Power Requirements	AC 100V ~ 240V, 50/60 Hz	
Power Consumption Without OPS	380W	
OPS Power	DC 18V/5A	
Standby Condition	<0.5W	
Audio Output Power	20W ×2	
Subwoofer	20W	
Sensor	Infrared, NFC, and light sensor	
Mainboard Interface		
HDMI IN	×2 Max Resolution:	



Version: HDMI12.0			3840×2160@60Hz
HDMI 1 Support ARC			_
Max Resolution: 3840×21 60@60Hz			
DP IN			
Version: DP1.2a	DR IN	<b>√</b> 1	
DFP Mode only   15W PD	DP IN	^1	
Type-C ×1 Max Resolution: 3840×21 60@60Hz Interface: USB Type-C Input Impedance: 75Ω Level: 0.7±0.15 Vp-p Max Resolution: 1920×1080@60Hz Interface: DB1 5 Input level(L/R): 0.2- 2Vrms Interface: 0.3.5mm mini interface Interface: RJ-45 Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A Smart follow interface, support images, music, video file playback, and firmware upgrade. Interface: USB2.0 Type-A Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch ×3 Milling Nype-B MIC IN ×1 Interface: Φ3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN ×1 RS232 Input Interface: DB9 Output level(L/R):			
Type-C  X1  Max Resolution: 3840×2160@60Hz Interface: USB Type-C  Input Impedance: 750 Level: 0.7±0.15 Vp-p Max Resolution: 1920×1080@60Hz Interface: DB15  Input level(L/R): 0.2-2Vrms Interface: 9.3.5mm mini interface  Interface: RJ-45  Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, and firmware upgrade. Interface: USB3.0 Type-A  Touch  X2  Touch  X3  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  X1  Interface: Φ3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  X1  Output level(L/R):			,
3840×2160@60Hz   Interface: USB Type-C	T 0	1	
Interface: USB Type-C  VGA IN  Input Impedance: 750 Level: 0.7±0.15 Vp-p  Max Resolution: 1.920×1.080@60Hz Interface: DB1.5  Input level(L/R): 0.2-2Vrms Interface: Φ 3.5mm mini interface  Interface: RJ-45 Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, and firmware upgrade. Interface: USB3.0 Type-A  Touch  V3  MIC IN  X1  Interface: Φ 3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  X1  Output level(L/R):  VALUDIO OUT	Type-C	×	
VGA IN  Input Impedance: 75\(\Omega\) Level: 0.7\(\delta\) 0.15 Vp-p  Max Resolution: 1920\(\delta\) 080\(\omega\) 60Hz Interface: DB1\(\delta\) Input level(L/R): 0.2\(\delta\) 2Vrms Interface: \(\delta\) 3.5mm mini interface  LAN  LAN  \(\delta\)  V2  1 0M/1 00M/1 00Mbps Base-T Interface: RJ-45 Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch  Touch  \(\delta\)  Touch  \(\delta\)  X3  \(\delta\)  MIC IN  \(\delta\)  X1  Interface: \(\delta\) 3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  \(\delta\)  RS232 Input Interface: DB9  Output level(L/R):			
Level: 0.7±0.15 Vp-p  Max Resolution: 1920×1080@60Hz Interface: DB15  Input level(L/R): 0.2-2Vrms Interface: \$\sigma\$.5mm mini interface  LAN  ×2  10M/100M/1000Mbps Base-T Interface: RJ-45  Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, and firmware upgrade. Interface: USB3.0 Type-A  Touch  Touch  X3  MIC IN  ×1  Interface: \$\sigma\$.0 Type-B  MIC IN  ×1  Interface: \$\sigma\$.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  X1  Output level(L/R):	\(\lambda_1\)		
Max Resolution: 1920×1080@60Hz	VGA IN		
AUDIO IN  **1  **1  **1  **1  **2			
Interface: DB1 5 Input level(L/R): 0.2-2Vrms Interface: \$\phi\$ 3.5mm mini interface  LAN    Variable   Variabl		×	
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Interface: \$ 3.5mm mini interface  10M/100M/1000Mbps Base-T Interface: RJ-45  Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  *1 Interface: \$ 3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  AUDIO OUT  *1 Output level(L/R):			
LAN  *2  10M/100M/1000Mbps Base-T Interface: RJ-45  Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch  Touch  *3  *AUDIO OUT  *1  *1  *1  *1  *1  *1  *1  *1  *1  *	AUDIO IN	×1	
Interface: RJ-45 Support images, music, video file playback, and firmware upgrade, android system use only. Interface: USB2.0 Type-A Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN ×1 Interface: Φ 3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  ALIDIO OUT  X1 Output level(L/R):			
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USB2.0  ×1  and firmware upgrade, android system use only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for  HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  ×1  Interface: Φ 3.5mm mini intercafe  Max speed: 1 6Mbps Interface: Optical  RS232 IN  ×1  AUDIO OUT  ×1  Output level(L/R):			Interface: RJ-45
only. Interface: USB2.0 Type-A  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN ×1 Interface: Φ 3.5mm mini intercafe  SPDIF ×1 Max speed: 16Mbps Interface: Optical  RS232 IN  AUDIO OUT  ×1 Output level(L/R):			
USB3.0  ×2  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  ×1  Interface: Φ 3.5mm mini intercafe  Max speed: 1 6Mbps Interface: Optical  RS232 IN  ×1  AUDIO OUT  ×1  V1  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for  HDMI1/HDMI2/DP/VGA  Interface: USB3.0 Type-B  Max speed: 1 6Mbps  Interface: Optical  RS232 Input  Interface: DB9  Output level(L/R):	USB2.0	×1	
USB3.0  ×2  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  ×1  Interface: Φ 3.5mm mini intercafe  Max speed: 1 6Mbps Interface: Optical  RS232 IN  ×1  ALIDIO OUT  ×1  Smart follow interface, support images, music, video file playback, can not use for firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA  Interface: USB3.0 Type-B  Max speed: 1 6Mbps Interface: Optical  RS232 Input Interface: DB9  Output level(L/R):			only.
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firmware upgrade. Interface: USB3.0 Type-A  Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  ×1 Interface: Φ 3.5mm mini intercafe  SPDIF  ×1 Max speed: 16Mbps Interface: Optical  RS232 IN  ×1 RS232 Input Interface: DB9  Output level(L/R):	USB3.0		music, video file playback, can not use for
Touch port for HDMI1/HDMI2/DP/VGA Interface: USB3.0 Type-B  MIC IN  ×1 Interface: \$\phi\$ 3.5mm mini intercafe  Max speed: 16Mbps Interface: Optical  RS232 IN  ×1 RS232 Input Interface: DB9  Output level(L/R):	0383.0		' -
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Interface: USB3.0 Type-B  MIC IN  ×1  Interface: \$\phi 3.5\text{mm mini intercafe}\$  SPDIF  ×1  Max speed: 16Mbps Interface: Optical  RS232 IN  ×1  RS232 Input Interface: DB9  Output level(L/R):			·
MIC IN  ×1 Interface: \$\phi 3.5\text{mm mini intercafe}\$  SPDIF  ×1 Max speed: 16Mbps Interface: Optical  RS232 IN  ×1 RS232 Input Interface: DB9  Output level(L/R):	Touch	×3	
SPDIF  ×1  Max speed: 16Mbps Interface: Optical  RS232 IN  ×1  RS232 Input Interface: DB9  Output level(L/R):			Interface: USB3.0 Type-B
RS232 IN  *1  Interface: Optical  RS232 Input Interface: DB9  Output level(L/R):	MIC IN	×1	Interface: Ф 3.5mm mini intercafe
RS232 IN  ×1  RS232 Input Interface: DB9  Output level(L/R):	SDDIE		Max speed: 16Mbps
ALIDIO OLIT ×1 Interface: DB9  Output level(L/R):	SPUIF	^1	Interface: Optical
ALIDIO OLIT ×1 Interface: DB9 Output level(L/R):	RS232 IN	1	RS232 Input
$\Delta(11)()()()(11)$		^1	Interface: DB9
110mVrms±40mVrms(@500mVrms 1KHz,	ALIDIO OLIT	V1	Output level(L/R):
	AUDIU UUT	^1	110mVrms±40mVrms(@500mVrms 1KHz,



		load 32Ω)	
		Interface: \$\phi\$ 3.5mm mini interface	
		Support TF Card	
SD CARD	×1	Interface: Micro SD card socket	
		Remarks: optional before delivery	
HDMI OUT		Max Resolution:	
	<	3840×2160@60Hz	
	×1	Version: HDMI2.0	
		All channel can be same screen-outed by	
		НДМІ	
Front Interface			
		Power output: 60W(20V/3A)	
Type-C	×1	Up to 3840×2160@60Hz	
		Support DRP mode	
		Interface: Type-C	
Public USB	×2	Version: USB3.0	
		Interface: Type-A	
WIFI			
	Main Chipset	BCM43752	
Wi-Fi 6	Operating	2.4GHz/5GHz	
	Frequency Wi-Fi		
	Standard	802.11 a/b/g/n/ac/ax	
	Main Chipset	MT7663BU	
Wi-Fi 5	Operating Frequency	2.4GHz/5GHz	
	Wi-Fi Standard	802.11 a/b/g/n/ac	
Bluetooth	Bluetooth		
Bluetooth		BT 5.3	
Bluetooth		ВТ 5.5	
Bluetooth NFC		D1 3.3	
	ISO/IEC 14443	3 A / ISO/IEC 1 4443 B	
NFC	ISO/IEC 1 4443 MIFARE FeliCo	3 A / ISO/IEC 1 4443 B	



Read/Write speed	106 To 424kbps	
Read/Write latency	<100ms	
Camera		
Pixels	48MP	
FOV Al Camera(active open	DIAGONAL Horizontal Sound localization	114.9° 102.1°
required)	Intelligent framing	
Array Mic		
Array quantity	8-mic	
Pick up Area	12m(Angle: 180°)	
AEC	Support	
AGC	Support	
Speech enhancement	Support	
Output signal	USB output	
Touch		
Sensing Type	Infrared Touch Frame	
Surface Protection	3.2mm Toughened Glass	
Infrared Touch	45 Points(max.)	
Interpolation Resolution	32768×32768	
Touch Accuracy	±1 mm	
Response Time	≤ 8ms	
Output Mode	HID Standard	
Theory Clicks	Unlimited	
Minimum Touch Object	Single touch ≥ 1.6mm  Multiple touch ≥ 2mm	
Connect Type	USB2.0 Full Speed	
Voltage	DC+5V±5%	
Power Consumption	≤ 2W	



Windows 11/10/8/7, Android	Multiple Touch
Windows XP, Linux, Mac OS X, Chrome	Single Touch
Structure	
Product Size(W×D×H)	1967.9mm × 87.1mm × 1159.8mm
Package Size(W×D×H)	21 60mm × 225mm × 1310mm
Housing Material	Aluminum/Metal plate
Housing Color	Black&Dark pewter/Black
VESA	4 × M8 Screw Hole 600mm×400mm
Accessories	
Remote Control	×1
Touch Pen	×2
3m Power Cord	India Standard×1, Europe Standard×1, American Standard×1, Austrilia Standard×1, Japan Standard×1, Saudi Arabia + Britain Standard×1, Brazilian Standard×1
3m USB A-B Cable(Touch Cable)	×1
3m HDMI Cable	×1
Qualified Certificate Lable	>×1
Instruction	×1
Warranty Card	×1
Wall Mount	×1
Smart pen(optional)	×1
Screen projector(optional)	×1
Environment	
Operating temperature	0°C ~ +40°C
Storage temperature	-10°C ~ +60°C
Operating humidity	20% ~ 80% RH Non-Condensing
Storage humidity	10% ~ 80% RH Non-Condensing



Operating altitude	≤ 5000m
The longest service time	18 Hours×7 days

# 3. Touch and writing system

### 3.1 Overview

 High precision of infrared touch frame, resolution by interpolation algorithm can be as high as 32768\*32768.

Supports up to 45 touch points.

### 3.2 Specifications

Sensing Type	Infrared Touch Frame
Surface Protection	3.2mm Toughened Glass
Infrared Touch	45 Points(max.)
Interpolation Resolution	32768×32768
Response Time	≤ 8ms
Touch Accuracy	±1 mm
Output Mode	HID Standard
Theory Clicks	Unlimited
Minimum Touch Object	Single touch ≥ 1.6mm,  Multiple touch ≥ 2mm
Connect Type	USB2.0 Full Speed
Voltage	DC+5V±5%

# 3.3 Systems and software

Support Multiple Touch	Windows 11/10/8/7, Android
Support Single Touch	Windows XP, Mac OS X, Linux, Chrome