

## P48480HY040X\_B01

### Consuming grade Android LCD Module

P48480HY040X\_B01 is an industrial Android serial port LCD based on the Rockchip PX30 processor. The product integrates the excellent features of the Rockchip PX30, and is equipped with a quad-core Cortex-A35 solution with a main frequency of 1.5 GHz and ultra-low power consumption. Integrated Mali-G31 GPU, support 1080P video encoding, H.265 hard decoding. Multi-channel video output, rich interface, support a variety of peripheral expansion.

In terms of hardware, this product is equipped with capacitive touch solution, TFT color LCD screen, optional 1GB/2GB DDR3, 8GB eMMC, with industrial level parametric performance, to bring your product excellent stability experience.

### Application Area

- ✓ Security field
- ✓ Electric power industry
- ✓ Energy and chemical industry
- ✓ Industrial control equipment
- ✓ Smart Home

### Front View



### Back View



## About PROCULUS

As a custom LCM manufacturer that is focusing on all-in-one TFT LCDs, we offer LCM solutions based on your requirements.

HDMI. They simplify GUI development and are cost-effective.

## Product Feature

PX30 1.5GHz Cortex-A35

RAM 2GB

ROM 32GB

Support Android、Linux

Display size 480x480

Display Brightness 300nit

UART TTL/RS485\*1

WIFI Support 2.4G frequency band



## Version Info

Ver.	Date	Descriptions
V1.1	2025/08/08	First release
V1.2	2025/09/04	Change USB to Type-C

For more detailed information about Proculus Technologies LCD module solutions, visit [www.proculustech.com](http://www.proculustech.com)

Proculus Technologies reserves the right to change or update any information contained herein without notice; Change the design, construction, materials, processes or specifications of any product without notice; To interrupt or restrict the production or distribution of any product.

Copyright © Proculus Technologies. All rights reserved

## Detailed Parameters

### Core Performance

CPU	1.5GHz Quad-core A35 ARM
RAM	2GB DDR3
eMMC	32GB
GPU	Mali-G31GPU
Power Manager	RK809

### Display Performance

Display Color	16.7M (16777216) colors, 24-bit color 8R8G8B
Display Size	70.18 mm(W)×71.86 mm(H), 480×480
View Area Size	70.78 mm(W)×72.46mm(H), 480×480
Resolution	480×480
Backlight Mode	LED
Luminance	300nit

### System Version

Android	Support Android 11
Linux	Support Ubuntu16.04 or linux+QT5.12

### Expansion Device

MIC	Audio input interface
Speaker	Audio output interface
Buzzer	Nonsupport
GPIO	Nonsupport
IIC	Nonsupport
TF Card	Nonsupport
HDMI OUT	Nonsupport
USB Camera	Nonsupport

### Voltage Current

Parameter	Condition	Min	Typ	Max	Unit
Working Voltage	—	12	12	24	V
Working Current	—	—	500	—	mA
Power	12V 2A DC (Recommended)				

### Visual Angle Parameter

Visual Angle (CR≥10)	Angle	Angle Parameter	Min	Typ	Max	Unit
	θL	Φ=180° (9 o'clock)	—	70	—	Deg
	θR	Φ=0° (3 o'clock)	—	70	—	
	θT	Φ=90° (12 o'clock)	—	50	—	
	θB	Φ=270° (6 o'clock)	—	70	—	

### Reliability Testing

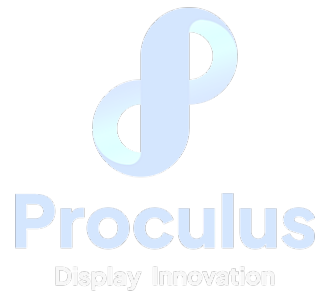
Parameter	Condition	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	70	°C
Storage Temperature	—	-30	25	85	°C
Working Humidity	25°C	10%	60%	90%	RH
Protection Paint	—	—	无	—	—

**Serial Port Parameter**

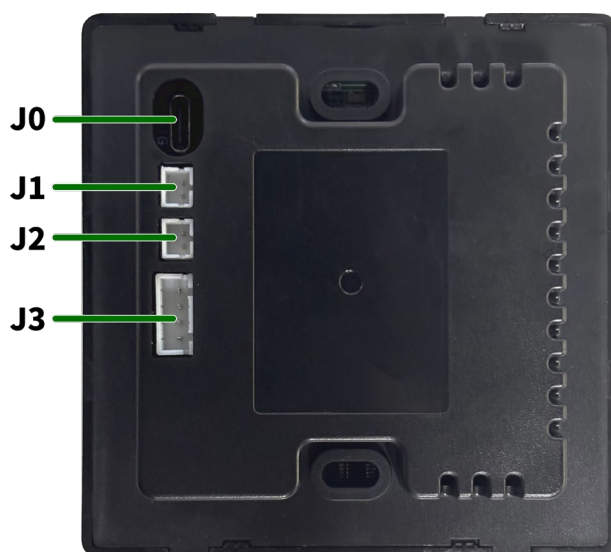
Parameter	Condition	Min	Typ	Max	Unit
Baud Rate	Standard	1200	9600	115200	bps
Serial Mode	1*RS485/TTL	User Interface	4Pin_XH2.54mm socket		

**Interface Parameter**

Interface	Parameter	Interface	Parameter
USB	USB DEBUG*1	WIFI	Support 802.11b/g/n Wi-Fi 2.4G
Bluetooth	Optional	4G	–
Ethernet	–	Gyroscope	–
NFC	–	Light sensor	–



## Interface Specification

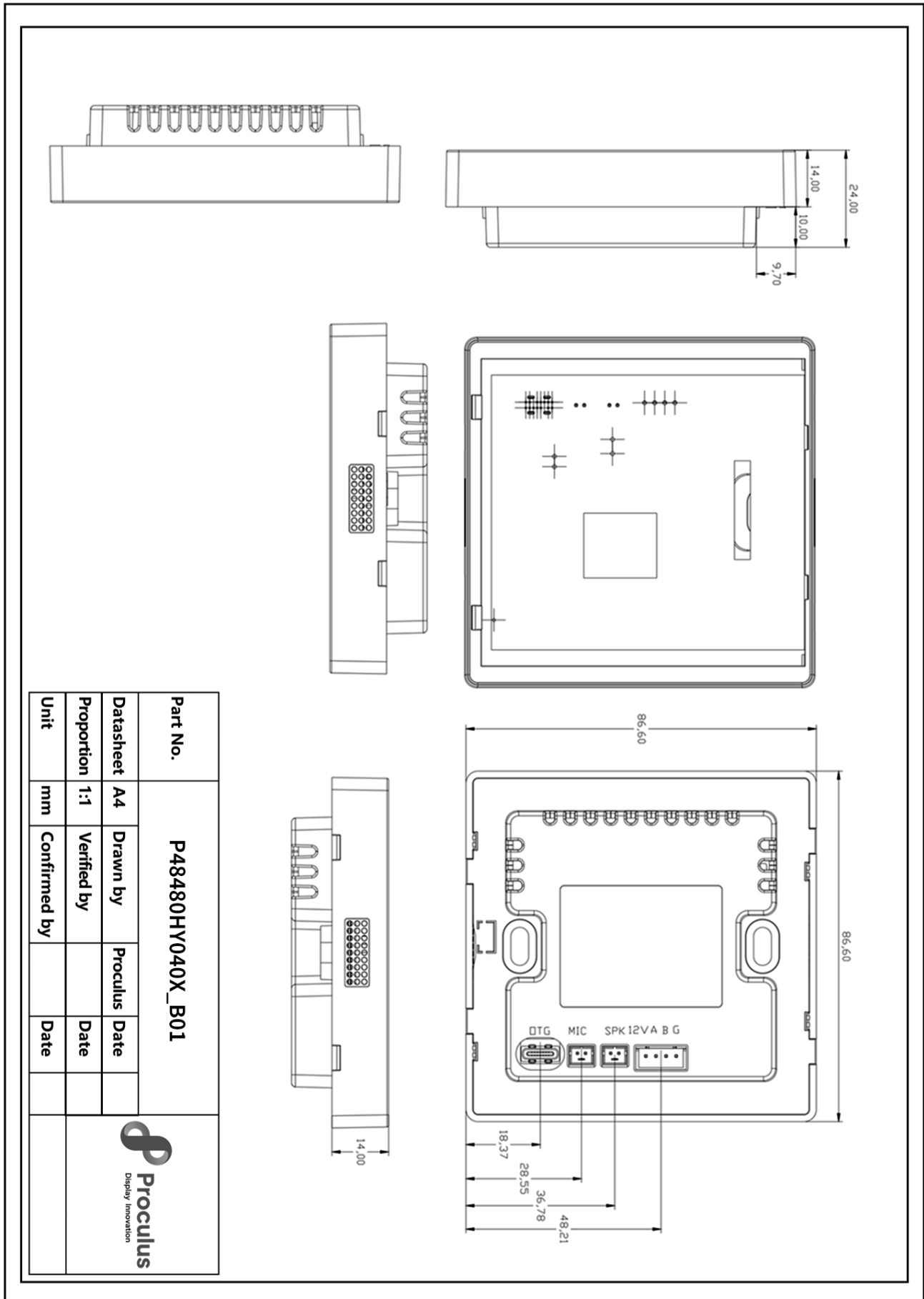


Num.	Interface	Description
J0	Type-C	OTG /App debugging/ Firmware upgrade interface, Supports 5V power supply
J1	MIC	Audio input interface
J2	SPK	Audio output interface
J3	RS485	TTY50, Choose one of 485/TTL,12V power supply interface Pin definition: 12V、A (TX)、 B (RX)、 GND

Display Innovation

Note: The interface sequence is sorted from top to bottom and from left to right.

## Product size drawing



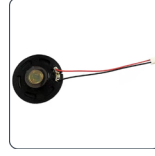
## Support peripheral accessories



### GPS function

Used for GPS positioning, map positioning, real-time location query

Support status: ✖



### Loudspeaker

Used to output audio and play music

Support status: ✔



### 4G function

Support 4g Internet access function, the following modules can be selected:

1-EC20: Signal is more stable, CAT4

2- EC25: CAT4

Support status: ✖



### HDMI Output

Used to output screen display

Supported status: ✖



### Extended storage

Expand storage space and export data for storing important data that can be migrated

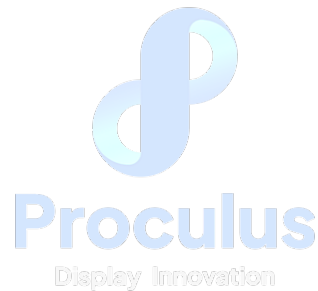
Supported status: ✖



### USB HD camera

Support 720P/1080P HD camera picture

Support status: ✖



## Service

Customers enjoy 1-year free warranty and lifetime maintenance guarantee for the purchase of our products, and users can also extend the warranty period by paying.

1. one year warranty: from the date of purchase enjoy 1 year free maintenance service.
2. lifetime maintenance: beyond the warranty period of the product, we provide paid maintenance services.
3. warranty scope: due to human use factors or force majeure caused by the damage is not within the scope of warranty; The CPU is not covered by warranty.

you about the use of the industrial control board you have purchased, give suggestions on your product maintenance, or reply to possible problems in a timely manner and answer.

The quality determination criteria for products leaving the factory are as follows:

1. Appearance of the LCD screen:

The standards for dust, black spots and white spots on the LCD screen are that there should be no more than 3 spots inside the screen, the size should not exceed 0.35mm, and the scratches should not exceed 5mm.

2. Overall machine function test:

When starting up, there should be no black screen failure, screen flickering, white screen or screen flashing. The USB interface can read and write normally. The OTG interface can burn the system. The serial port function communication is normal. The speaker and microphone interfaces can broadcast and receive sound normally. The buzzer function sounds normally without tearing.

3. Overall appearance of the machine:

No missing PCBA parts, no damaged components. The WIFI antenna needs to be fixed with hot melt adhesive, and the LCD screen needs to be pasted with protective film.

## Technical Support

Within 12 months from the date of purchase, front-line engineers will provide timely support during working days and working hours. The scope of support is as follows:

1. Support users to run Android system and related interface test programs.
2. support the common configuration of Android system
3. support customer Android product hardware support

## Notes

1. Do not plug and remove the core board and peripheral modules with power on
2. Please follow all warnings and guidelines on the product
3. Please keep this product dry. If accidentally splashed or soaked by any liquid, power off immediately and allow to dry fully
4. Pay attention to the ventilation and heat dissipation of the product during use to avoid damage to components caused by excessive temperature
5. Do not use or store this product in a dusty or dirty environment
6. Do not use this product in alternating hot and cold environment to avoid damage to components
7. Do not handle the product roughly. Falling, knocking or violent shaking may damage the line and components
8. Do not use organic solvents or corrosive liquids to clean the product
9. Do not repair or disassemble the company's products by yourself. If the products fail, please contact the company in time for maintenance
10. Unauthorized modification or use of unauthorized accessories may damage the product, and the resulting damage will not be guaranteed
11. If the LCD screen continuously works at the highest brightness, the LCD backlight life cycle will be halved; If a high contrast static display is displayed for more than 30 minutes, it may cause residual images on the LCD screen. You are advised to add a screensaver to avoid this problem

## Disclaimer

Due to a product version upgrade or other reasons, the information in this document, including the URL path for reference, is subject to change without notice.

Information from third parties may be referenced in this document. All quoted information is provided "as is" and Proculus Technologies does not guarantee the accuracy or authenticity of the information.

Proculus Technologies makes no warranties regarding the content of this document, including its merchantability, fitness for a particular purpose, and does not provide any warranties referred to elsewhere in any other technology proposal, specification, or sample.

Proculus Technologies makes no warranties as to whether this document infringes the rights of third parties, and is not responsible for any infringement of intellectual property rights resulting from the use of the information contained in this document. No intellectual property license, express or implied, is granted herein by estoppel or otherwise. All statements, information and recommendations in this document do not constitute any warranty of any kind, express or implied. It is hereby stated that all trade names, trademarks and registered trademarks mentioned in this document are the property of their respective owners.

