

## P80480HY050X\_T01

### Consuming grade Android LCD Module

P80480HY050X\_T01 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

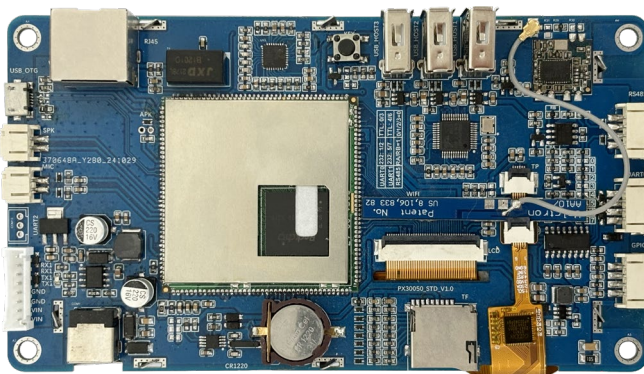
- ✓ Security field
- ✓ Electric power industry
- ✓ Energy and chemical industry
- ✓ Industrial control equipment



### Front View



### Back View



## About PROCLUS

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

Our solutions include UART, Android and 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 800×480

Display Brightness 300nit

UART RS232/TTL\*1、RS232/TTL/RS485\*1

USB2.0\*3

WIFI Support 2.4G frequency band

Ethernet Supports 10m/100m

## Version Info

Ver.	Date	Descriptions
V1.0	2024/12/23	First release
V1.0	2025/1/8	Upgrade RAM 2GB,ROM 32GB

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

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## Detailed Parameters

### Core Performance

CPU	1.5GHz Quad-core A35 ARM
RAM	2GB DDR3
eMMC	32GB
GPU	Mali-G31 GPU
Power Manager	RK809

### Display Performance

Display Color	16.7M (16777216) colors, 24-bit color 8R8G8B
Display Size	108.0 mm(W)×64.8 mm(H), 800*480px
View Area Size	110.4 mm(W)×67.1 mm(H), 800*480px
Resolution	800*480px
Backlight Mode	LED
Luminance	300nit

### 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*RS232/TTL,1*RS232/RS485/TTL	User Interface	8Pin_PH2.0mm socket		

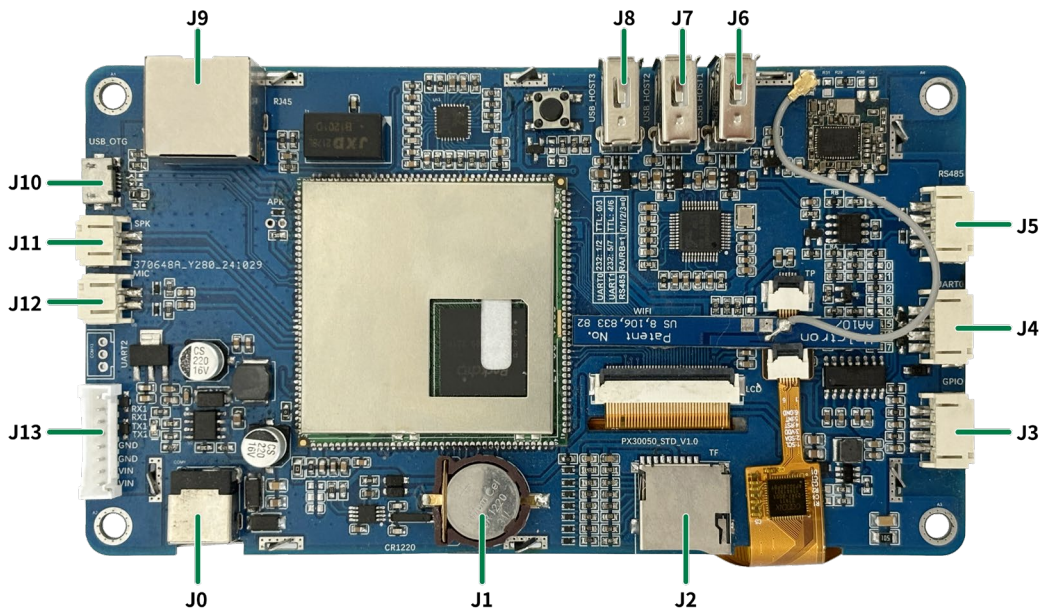
### Interface Parameter

Interface	Parameter	Interface	Parameter
USB	USB DEBUG*1. USB HOST*3	WIFI	Support 802.11b/g/n Wi-Fi 2.4G/5G
Bluetooth	Optional	4G	-
Ethernet	Support 10m/100m Ethernet	Gyroscope	-
NFC	-	Light sensor	-



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## Interface Specification

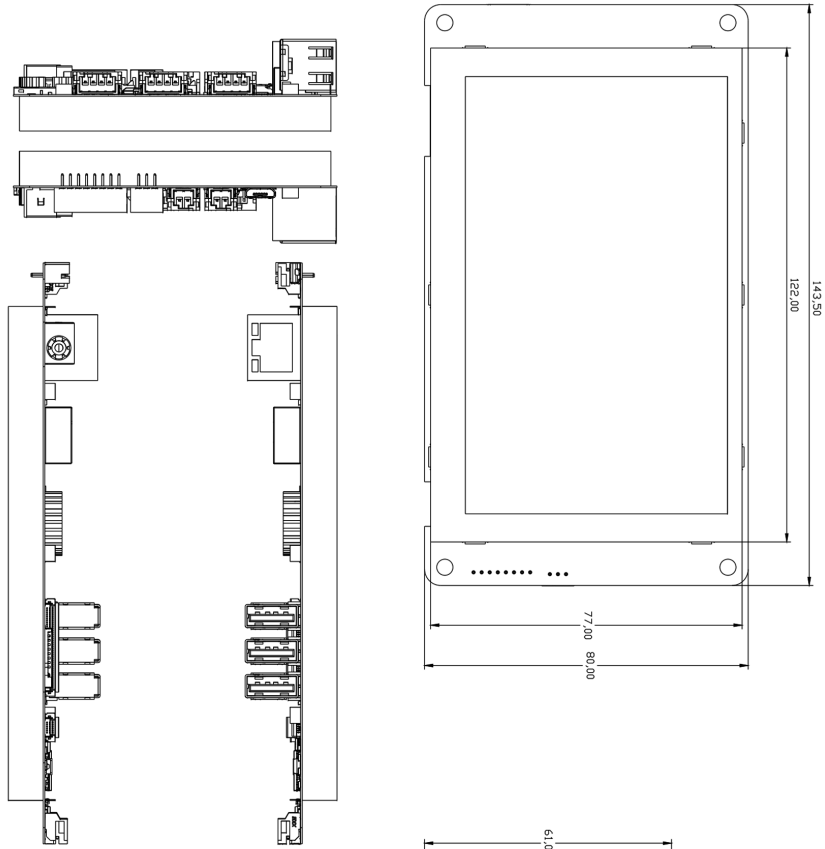


Num.	Interface	Description
J0	Power	12V/2A power supply (maximum voltage ranges from 12V to 24V DC)
J1	RTC	Supply system RTC
J2	TF card	Can do memory expansion
J3	GPIO interface	Pin definition: GND、GPIO1_B6、GPIO1_B7、GPIO1_B5
J4	UART0	Device name: ttyS0. Pin definition: GND、TX、RX、5V
J5	RS485	Device name: ttyS0. Pin definition: GND、B、A、5V /Same as J4
J6	USB_HOST1	Support USB Peripherals
J7	USB_HOST2	Support USB Peripherals
J8	USB_HOST3	Support USB Peripherals
J9	RJ45 interface	Support 10M/100M network
J10	USB_Micro	OTG /App debugging/ Firmware upgrade interface

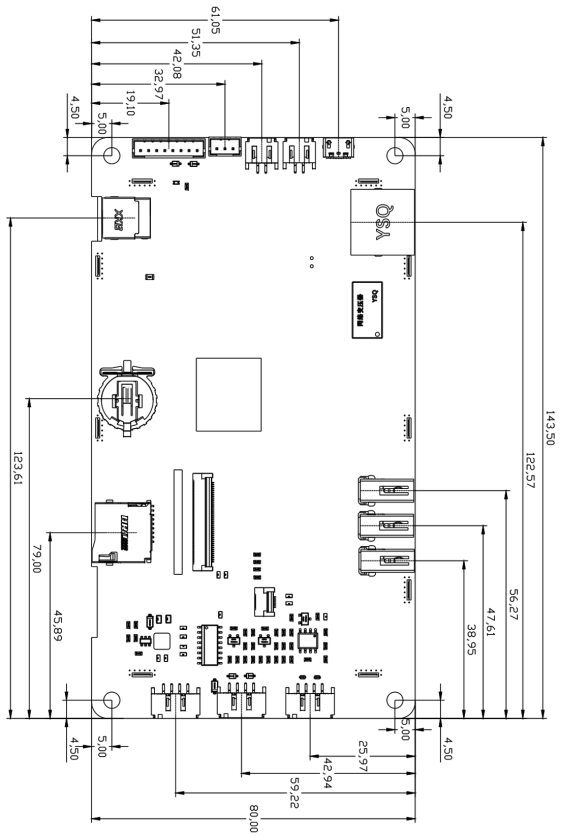
Num.	Interface	Description
J11	SPK	Audio output interface
J12	MIC	Audio input interface
J13	User interface	Pin Definition:RX1、RX1、TX1、TX1、 GND、GND、VIN、VIN


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

# Product size drawing (product without shell)



- 1. Location hole is used as position reference
  - 2. Unmarked Tolerance is  $\pm 0.3\text{mm}$
- Active area is marked in Dash lines



Part No.	P80480HY050X_T01			 <b>PROCLUS</b> PROCLUS TECHNOLOGIES INS.
Datasheet	A4	Drawn by	Proclus	
Proportion	1:1	Verified by		Date
Unit	mm	Confirmed by		Date

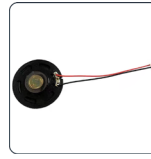
## Support peripheral accessories



### 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: ✅



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## 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.

In addition, all the purchase of our company's products will be recorded, after-sales service personnel will actively and regularly ask 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

## 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

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