

## P10600HY070A\_T01

### High-Performance Android LCD Module

HY10600A070\_T01 is an industrial Android serial port LCD screen based on the Rockchip RK3399 processor. Rockchip is a high-performance, low-power, feature-rich domestic application processor for AIOT and industrial markets. Can be used for computing, personal mobile Internet devices and other smart device applications

In terms of hardware, this product is equipped with capacitive touch solution, TFT color LCD screen, optional 2GB/4GB DDR3, 8GB /16/32/64GB eMMC. Under the support of Android 11 system, the standard is equipped with a 2-way output audio interface and a COMx3/USBx3 interface, etc., to bring your product an excellent stable experience with industrial level parametric performance.

### Application Area

- ✓ Wisdom medical
- ✓ Smart transport
- ✓ AI
- ✓ Smart Device
- ✓ Energy & Chemical

### 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

- RK3399 1.8GHz
- RAM 2GB
- ROM 8GB
- Support Android、Linux
- Display size 1024×600
- Display Brightness 350nit
- UART RS232\*3、RS485\*1
- USB3.0 OTG\*1、USB2.0 \*2
- WIFI Support 2.4G/5G frequency band
- Bluetooth 4.0
- Ethernet Supports 10m/100m/1000m
- 4G support (optional)
- Supports the GPIO function

## Version Info

Ver.	Date	Descriptions
V2.2	2024/06/07	Update Datasheet

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	Dual-core A72+ Quad-core A53
RAM	2GB DDR4
eMMC	Default 8GB, Support 16/32/64GB
GPU	ARM Mali-T860 MP4
Power Manager	RK808-d

### Display Performance

Display Color	16.7M (16777216) colors, 24-bit color 8R8G8B
Display Size	154.21 mm(W)×85.92 mm(H), 1024×600
View Area Size	155.96 mm(W)×88.87mm(H), 1024×600
Resolution	1024×600
Backlight Mode	LED
Luminance	350

### Voltage Current

Parameter	Condition	Min	Typ	Max	Unit
Working Voltage	-	6	12	24	V
Working Current	-	-	400	-	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	80	-	Deg
	θR	Φ=0° (3 o'clock)	70	80	-	
	θT	Φ=90° (12 o'clock)	50	60	-	
	θB	Φ=270° (6 o'clock)	60	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	-	-

### System Version

Android	Support Android 7-Andoird14
Linux	Support Debian/Ubuntu

### Expansion Device

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

### Serial Port Parameter

Parameter	Condition	Min	Typ	Max	Unit
Baud Rate	Standard	1200	9600	115200	bps
Serial Mode	3*RS232/TTL,1*RS485/TTL	User Interface	8PIN 2.0mm		

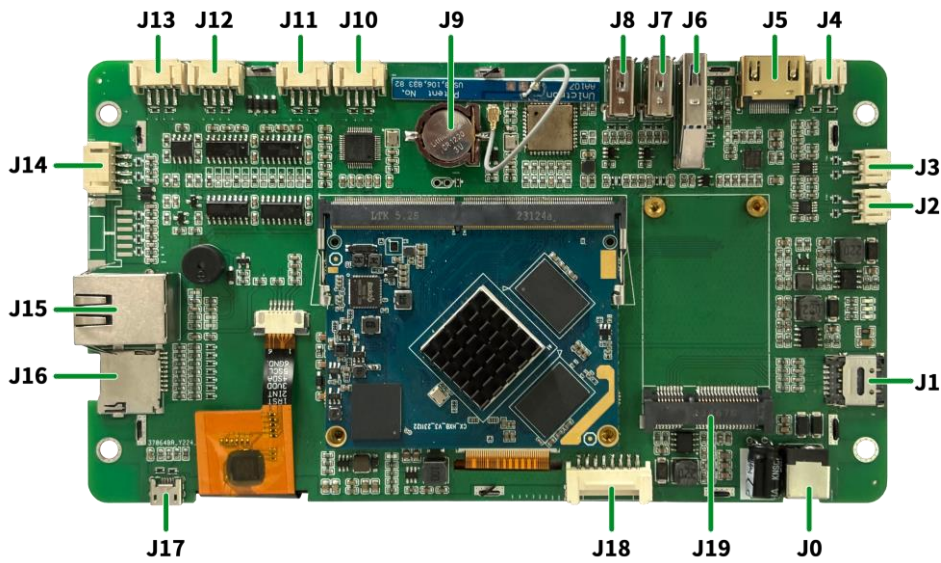
### Interface Parameter

Interface	Parameter	Interface	Parameter
USB	USB 3.0 OTG*1. USB 2.0 HOST*2.	WIFI	Support 802.11b/g/n Wi-Fi 2.4G/5G
Bluetooth	Bluetooth 4.0	4G	4G /GPS (Optional)
Ethernet	Support 10m/100m/1000m Ethernet	Gyroscope	-
NFC	-	Light sensor	-



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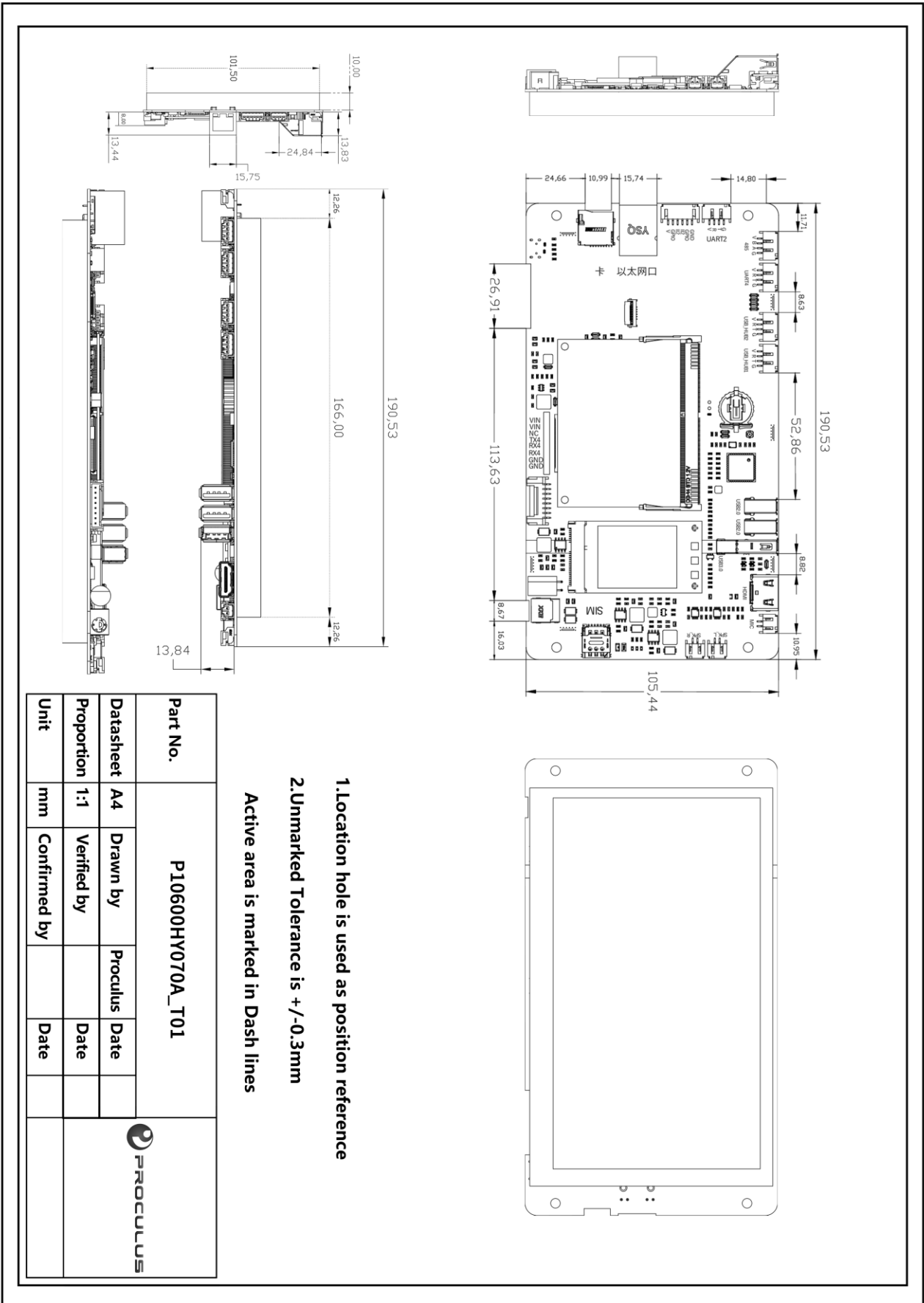
## Interface Specification



Num.	Interface	Description
J0	Power	12V/2A power supply
J1	SIM Card	NANO SIM card, Reserved
J2	Speaker 1	Audio output interface -
J3	Speaker 2	Audio output interface -
J4	MIC	Audio input interface
J5	HDMI	HDMI output interface
J6	USB Interface 1	USB3.0 Support USB Peripherals
J7	USB Interface 2	USB2.0 Support USB Peripherals
J8	USB Interface 3	USB2.0 Support USB Peripherals
J9	RTC	Supply system RTC
J10	UART6	Device name: ttyUSB6 Pin definition: V, TX,RX, GND
J11	UART7	Device name: ttyUSB7 Pin definition: V, TX,RX, GND
J12	UART4	Device name: ttyS4 Pin definition: V, TX,RX, GND
J13	RS485	Device name: ttyS4, Same as J12 Pin definition: V, B,A, GND
J14	UART2	System Debug,not open temporarily
J15	RJ45 interface	Support 10M/100M/1000M network

Num.	Interface	Description
J16	TF card	Can do memory expansion
J17	USB_Micro	OTG /App debugging Firmware upgrade interface
J18	User interface	Pin Definition: VIN, VIN, NC, TX4, RX4, RX4, GND, GND
J19	MINI PCIE 4G	4G LTE Module/GPS (Optional)

## Product size drawing (product without shell)



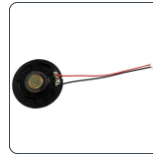
## Support peripheral accessories



### 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

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