

P10600HY070D_T01

High-Performance Android LCD Module

HY10600D070_T01 is a product that integrates the RK3562 IoT chip from Rockchip. It features a high-performance quad-core ARM Cortex-A53 CPU, ARM Mali G52 GPU, 13 M ISP HDR, and 1T NPU computing power. With its powerful performance, it meets the customers' demands for automation in industrial applications and high computing power and multimedia functions in consumer applications.

Rockchip RK3562 has high-performance external memory interface (LP4/ LP4x) capable of sustaining demanding memory bandwidths, also provides a complete set of peripheral interface to support very flexible applications.

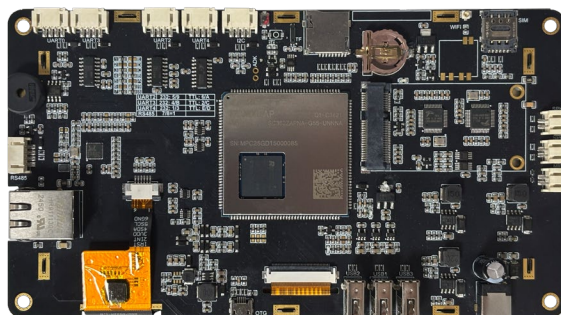
Application Area

- ✓ Wisdom medical
- ✓ Smart transport
- ✓ Security
- ✓ Power sector
- ✓ Energy & Chemical

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

RK3562 ARM Cortex-A53 CPU @ 1.8 GHz

RAM 2GB

ROM 32GB

Support Android、Linux

Display size 1024×600

Display Brightness 500nit

UART RS232/TTL*4、RS485/TTL*1

USB OTG*1、USB2.0 *3

WIFI Support 2.4G/5G frequency band

Bluetooth (optional)

Ethernet 10m/100m/1000m

4G support (optional)

Version Info

Ver.	Date	Descriptions
V1.0	2025/09/28	First release

For more detailed information about Proculus Technologies LCD module solutions, visit www.proculustech.com

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Detailed Parameters

Core Performance

CPU	1.8GHz Quad-core A53 ARM
RAM	1GB DDR4 / 2GB DDR4 / 4GB DDR4
eMMC	8GB / 32GB / 64GB
GPU	Mali-G52
Computility	1 TOPS NPU

System Version

Android	Support Android 13
Linux	Support Linux+QT5.12

Expansion Device

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

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	500

Voltage Current

Parameter	Condition	Min	Typ	Max	Unit
Working Voltage	—	12	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

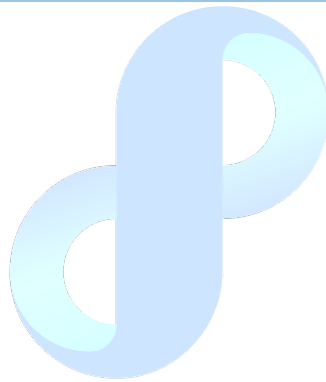
Parameter	Condition	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	70	°C
Storage Temperature	—	-30	25	85	°C
Working Humidity	25°C	10%	60%	90%	RH
Protection Paint	—	—	无	—	—

Serial Port Parameter

Parameter	Condition	Min	Typ	Max	Unit
Baud Rate	Standard	1200	9600	115200	bps
Serial Mode	4*RS232/TTL,1*RS485/TTL	User Interface	-		

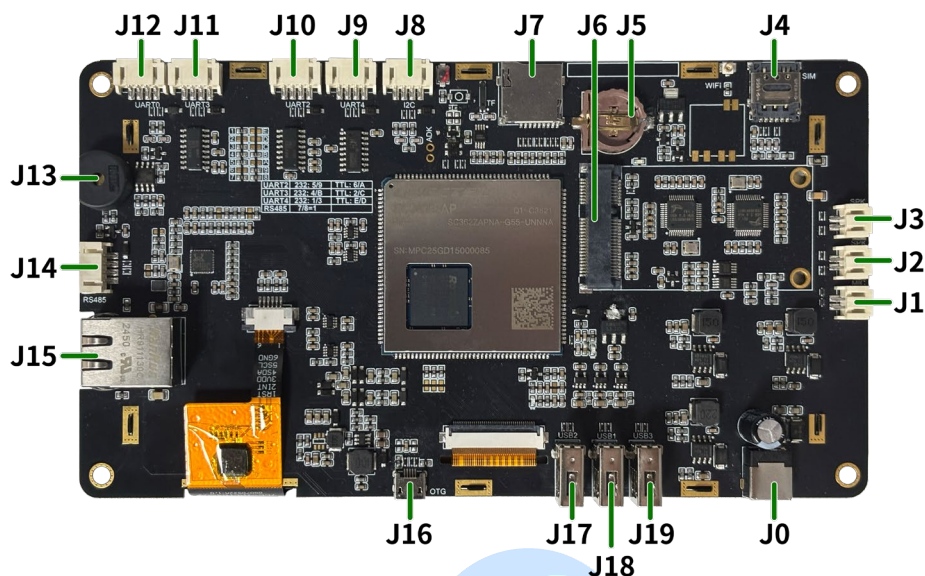
Interface Parameter

Interface	Parameter	Interface	Parameter
USB	USB OTG*1. USB 2.0 HOST*3.	WIFI	Support 802.11b/g/n Wi-Fi 2.4G/5G
Bluetooth	Optional	4G	4G /GPS (Optional)
Ethernet	10m/100m/1000m Ethernet	Gyroscope	-
NFC	-	Light sensor	-



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Interface Specification



Num.	Interface	Description
J0	Power	12V/2A power supply
J1	MIC	Audio input interface
J2	SPK_L	Left channel audio output interface
J3	SPK_R	Right channel audio output interface
J4	SIM card	Nano-SIM supported (Optional)
J5	RTC	Supply system RTC
J6	MINI PCIE 4G	4G LTE Module/GPS (Optional)
J7	TF card	Memory expansion
J8	IIC interface	Pin definition: V, SDA, SCL, GND
J9	UART4	Device name: ttyS4 Pin definition: 5V, RXD, TXD, GND
J10	UART2	Device name: ttyS2 Pin definition: 5V, RXD, TXD, GND
J11	UART3	Device name: ttyS3 Pin definition: 5V, RXD, TXD, GND
J12	UART0	Device name: ttyS0 Pin definition: 5V, RXD, TXD, GND
J13	Buzzer	Buzzer
J14	RS485	Device name: ttyS7 Pin definition: 5V, A, B, GND
J15	Ethernet	Support 10M/100M/1000M network

Num.	Interface	Description
J16	USB_Micro	OTG /App debugging/ Firmware upgrade interface
J17	USB_HOST1	Support USB Peripherals
J18	USB_HOST2	Support USB Peripherals
J19	USB_HOST3	Support USB Peripherals


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

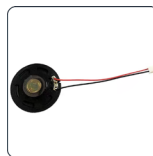
Support peripheral accessories



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

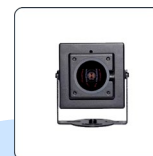
Supported status: 



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.

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

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