



XA080XRN01W

8 inch industrial Android intelligent touch
display terminal

Product specification (R818 series)



Taobao



WeChat

Records

Time	Edition	Notes
2025-08-14	V1.0	Initial version

1. Product Introduction

The XA080XRN01W series is an industrial-grade Android smart touch display terminal independently developed by XRD based on the ARM A53 architecture. Comprising a baseboard, LCD display, and touchscreen, it features a Quanzhi R818 quad-core processor and Android 10.0 OS with self-installed APK support. The system boasts a new Lise display technology that allows user-adjustable color temperature settings, 4K video playback, 1080P video calls, and 2-megapixel dual-camera setup. With extensive interface resources, users can communicate with external devices via RS232, RS485, CAN serial ports, while also connecting to WiFi/Ethernet networks for web browsing, music playback, video streaming, and remote updates.

2. Product advantages

- ☑ Android 10.0 operating system, can install Android universal APP, support independent design APK program installation
- ☑ Licolor display system, automatically adjust the color tone
- ☑ Supports 4K video playback
- ☑ Supports 1080P language calls, 2 million dual shots
- ☑ Supports WIFI/Ethernet and other networking modes, enabling remote data transmission, upgrade and update
- ☑ Supports multi-channel RS232, RS485, CAN and other different serial port communication to realize the exchange of communication with external devices
- ☑ Supports voice playback and video playback
- ☑ Completely new gesture control, more intelligent human-computer interaction experience
- ☑ Industrial embedded installation design, applicable to a variety of industries
- ☑ Passed CE/ROHS and other testing and certification, the product is stable and reliable

3. Product diagram



Figure 1, front view

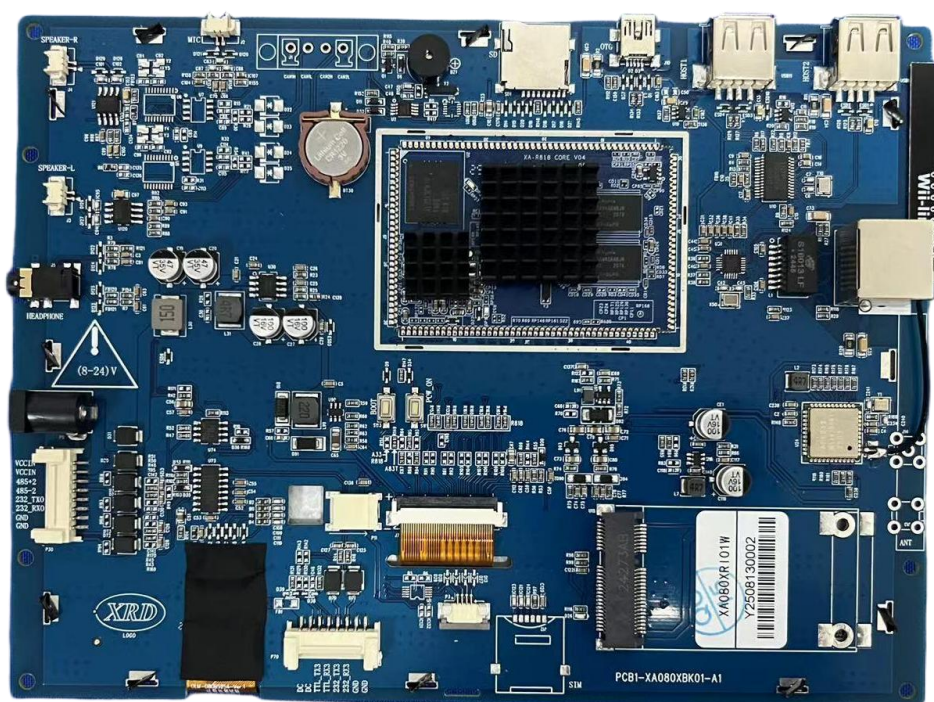


Figure 2, back view

4. Industrial application fields

- ☒Industrial control industry
- ☒New energy
- ☒Beauty equipment
- ☒Security equipment
- ☒Environmental protection equipmen
- ☒Electric power industry
- ☒Medical equipment
- ☒Instrumentation
- ☒Fire fighting equipment
- ☒machine vision

5. Hardware parameters

5.1 Display performance parameters

parameter	data	explain
Screen size type	Eight inches	Screen ratio 4: 3
Resolution ratio	1024 by 768 pixels	16.7 million true color display
Pigment	16.7 million colors	-
Display size (A.A.)	162 (width) * 121.5 (height) mm	-
Outline dimension	199.4 (width)* 148.79 (height) mm	-
Backlight brightness	250 nit	The brightness can be adjusted by PWM
Backlight life (hours)	30000Hrs	LED be in a poor light
Perspective (CR> 10)	Broad perspective	Panel type: IPS

5.2 Electrical parameters

parameter	data	explain
CPU processor	R818	4 cores A53 1.6GHz
Operating system	V10.0	android
Running memory	2GB	2*1GB, DDR4 Remarks (2GB: 2 DDR4)
EMMC	32GB	EMMC5.1
Multi-touch	Five points	-
TP surface hardness	7	Moh's hardness
TP light transmittance	> 85	-
Working voltage	12V (typical value)	Minimum 8V, maximum 24V
Working current	12V 550mA	Intermediate brightness; recommended 12V 2A DC regulated power supply
Power interface	DC005; or terminal 1(HY2.0-8P buckle)	-

5.3 Appearance specification parameters

parameter	data	explain
Gorge line	The default serial port is RS485	Serial port 2, port number: ttyS2
	The default second serial port is RS232	Port 3, port number: ttyS3
	The default third serial port is RS232	Port 0, port number: ttyS0
	1 L TTL/CMOS	Multiplexed with RS232 serial port 3 (UART3_TX, UART3_RX)
	Maximum baud rate 115200	
USB	2 HOST and 1 OTG	If connected to a USB camera, it can support 2 megapixels
MIC	1 microphone	Capacitive electret microphone head
HEADPHONE	Route 1	3.5MM headphones
SPEAKER	One road left, one road right,	4 Euro 3W*2
TF block	Route 1	Maximum 64G
Ethernet	Route 1	10/100M adaptive network interface
WIFI	Route 1	IEEE 802.11b/g/n, 2.4G WIFI; *Optional*
Bluetooth	Route 1	V5.2 for BR/RDR/BLE; *Optional*
PDA	Route 1	V4.0
Key	Two	1 POWON, 1 BOOT (boot button)

5.4 Reliability parameters

type	project	Specifications and parameters
Enviromental parameter	Storage temperature	-20 ~ 70°C
	working temperature	-10 ~ 60°C
	relative humidity	10~90% RH
Reliability parameters	EMC	Class B , EN55032
	ESD	Level 2

6. Hardware diagram

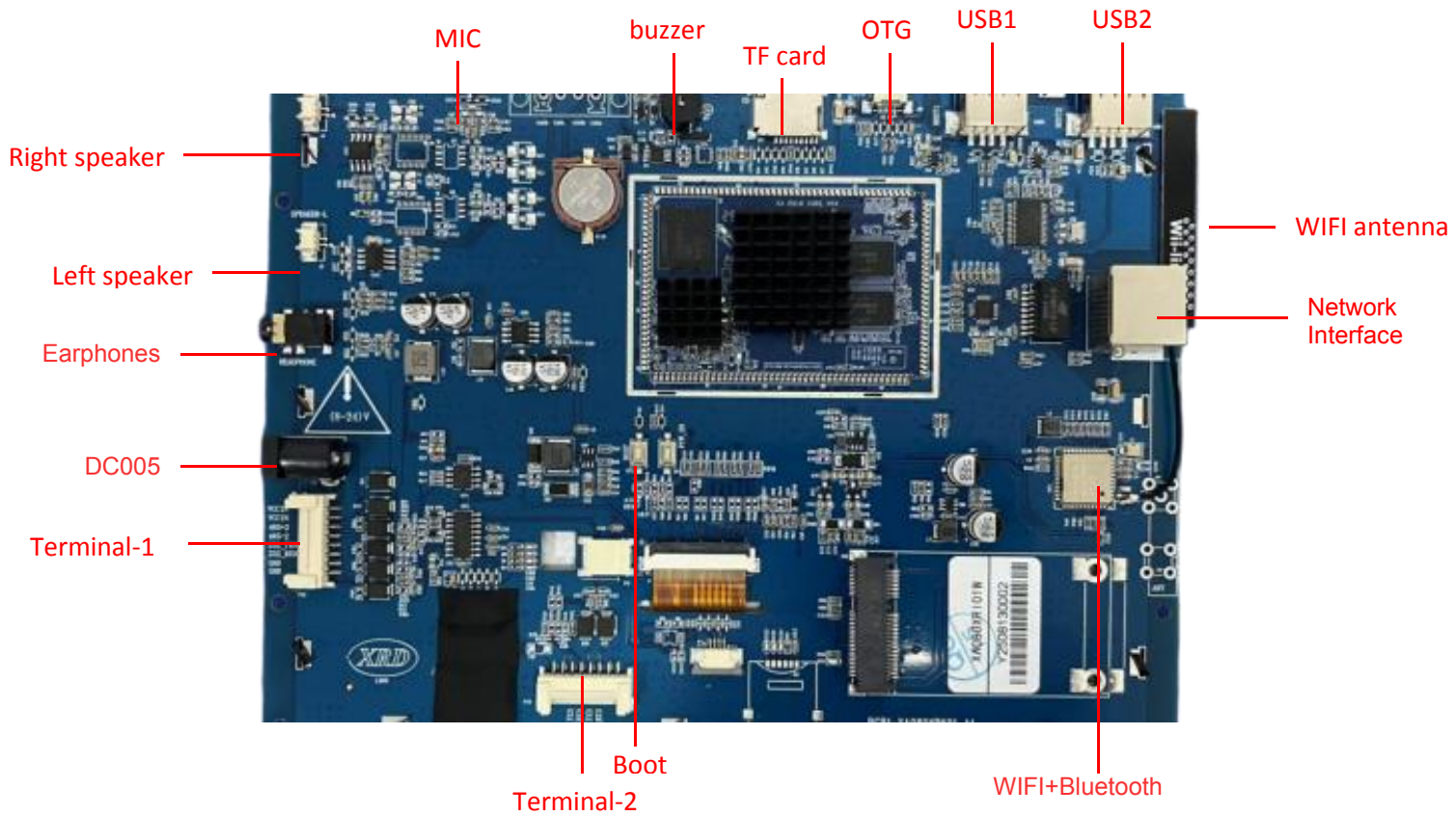


Figure 3. Interface resource diagram

[Terminal Description]

6.1 Power supply and serial port communication section

terminal	Terminal screen printing	definition	explain	remarks
Port 1 HY2.0-8P (belt buckle)	VCCIN	DC12V	The power input is positive	
	VCCIN	DC12V		
	RS485+	485A-RX2	Software identification port: tty2	The default serial port 2 outputs at RS485 level
	RS485-	485B-TX2		
	232-TX0	Send via RS232	Software identification port: tty0	The default serial port 0 is output at RS232 level
	232-RX0	RS232 receiver		
	GND	the earth	Power input ground	
	GND	the earth	Power input ground	

terminal	Terminal screen printing	definition	explain	remarks
Port 2 HY2.0-8P (belt buckle)	NC	NC	No empty feet	
	NC	NC		
	UART3_TX	TTL transmit by radio	Software identification port: tty3	By default, the TTL level is output and multiplexed with RS232 serial port 3
	UART3_RX	TTL receive		
	232_TX3	Send via RS232	Software identification port: tty3	The default serial port 3 is output at RS232 level, which can be changed through BOM TTL electrical level
	232_RX3	RS232 receiver		
	GND	the earth		
	GND	the earth		

6.2 Audio component

terminal	Terminal screen printing	definition	explain	remarks
Trumpet on the left	L	The left speaker is positive	4 Euro 3W speakers	SH1.25MM-2P Terminal
	L	The left speaker is positive		
The speaker is on the right	R	The right speaker is loud	4 Euro 3W speakers	SH1.25MM-2P Terminal
	R	The right speaker is loud		

6.3 Burn key

terminal	Terminal screen printing	definition	explain
Burn key	BOOT	-	After installing the Phoenix tool on the computer and installing the driver using the 360 Mobile Assistant, hold down the BOOT button, connect the power supply and turn it on. Release the button after 3 seconds. Insert the MINI USB burning cable to burn the firmware;

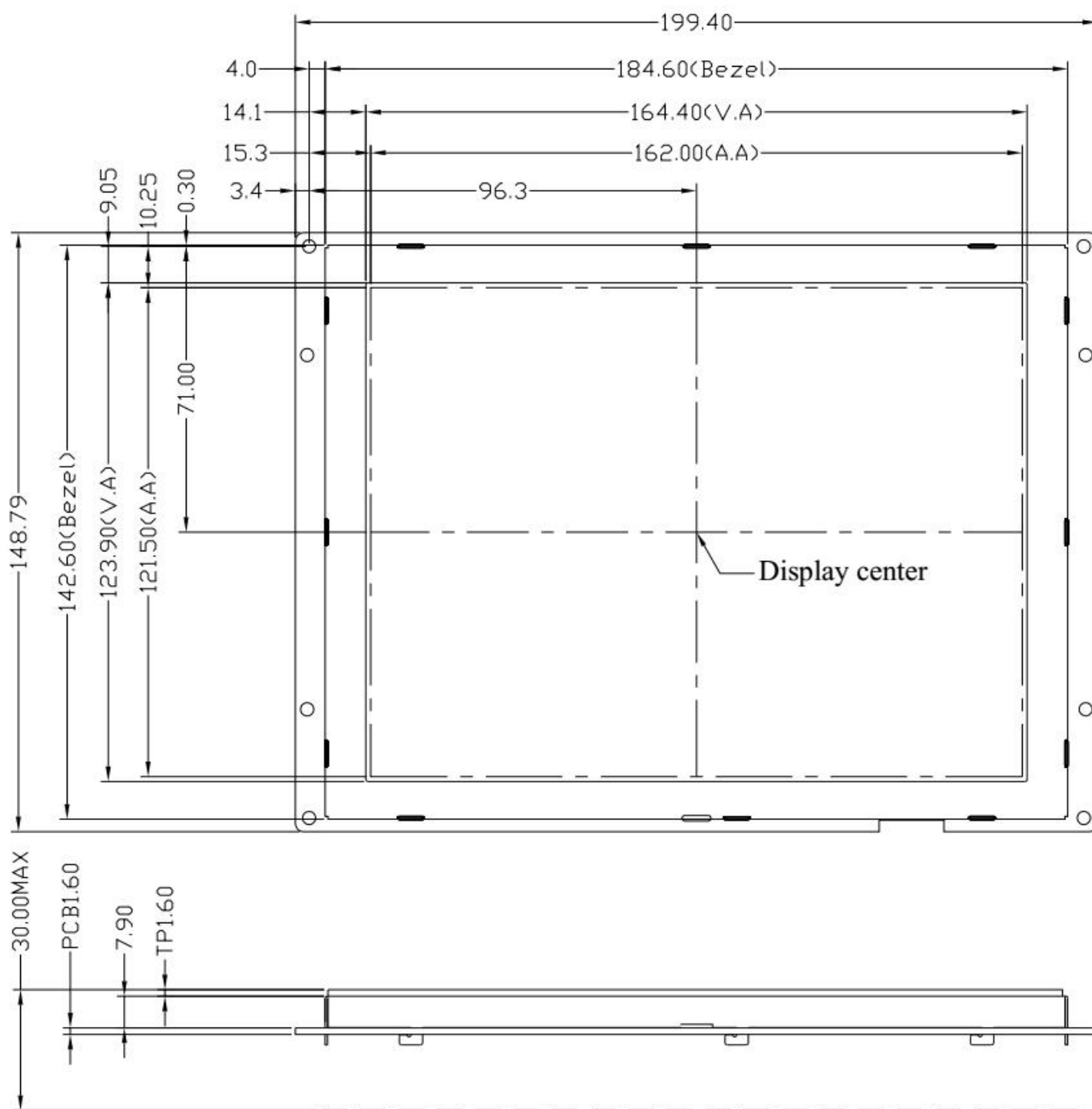
6.4 MIC interface

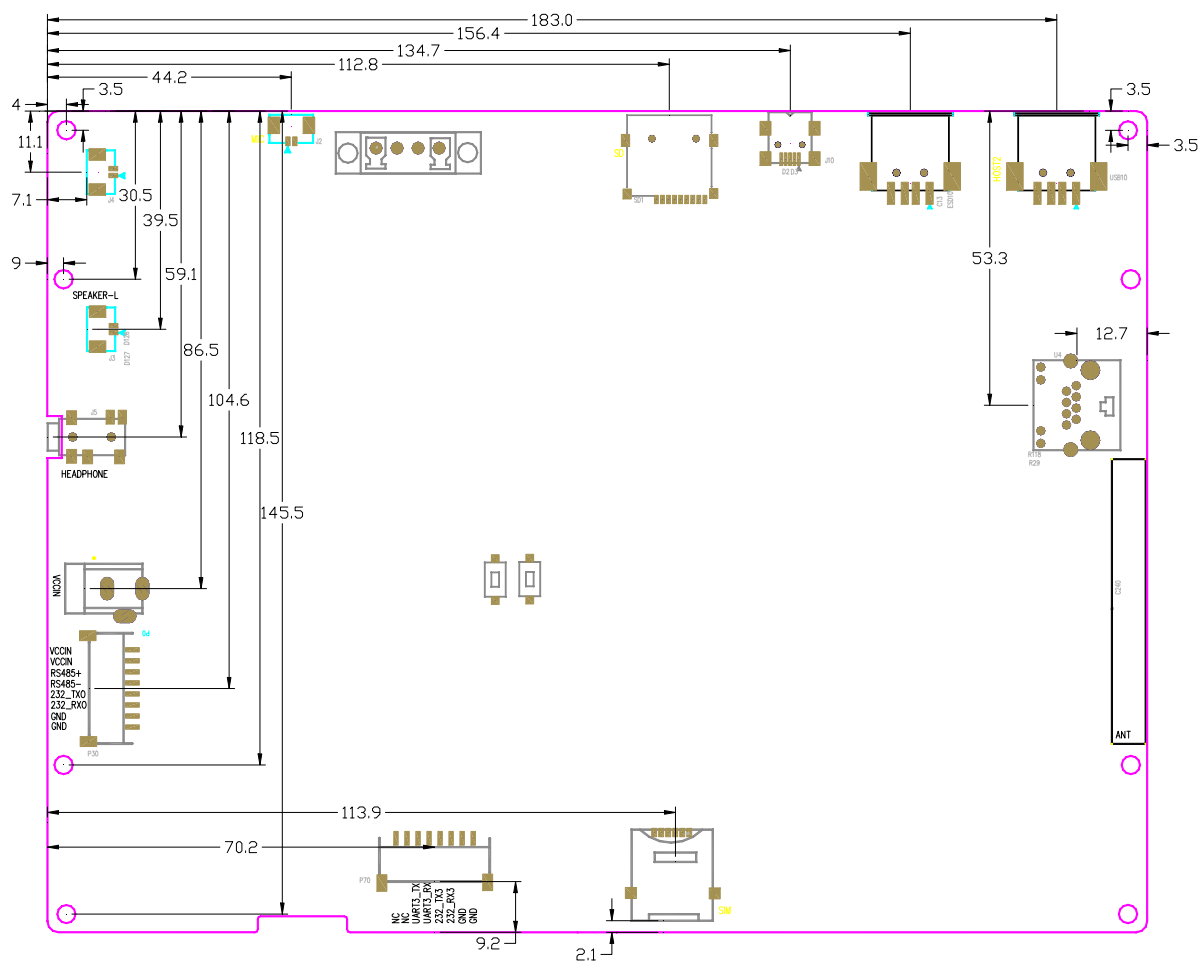
terminal	Terminal screen printing	definition	explain	remarks
Microphone interface	MIC	-	Capacitive electret microphone	SH1.25MM-2P Terminal

6.5 USB port

terminal	Terminal screen printing	definition	explain	remarks
USB mouth	HOST0	USB-A	USB2.0 interface	-
	HOST1	USB-A	USB2.0 interface	-

7. Product size diagram





8. FCC Warning Statement:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.

9. Technical services

Assist Linux intelligent display terminal debugging;

Assist in troubleshooting abnormal problems caused by operating according to the user manual;

Assist in product fault determination;

Assist in product development;

Provide long-term after-sales service.

10. Value-added services

Hardware customization

Application development

Joint development of projects

technically training

11. More help

XRDgeneral machine: 0755-26018666

XRD hotline: 400-069-8808

XRD official website: www.xrd-lcd.com

Taobao: <https://shop517336586.taobao.com/?spm=a1z10.1-c-s.0.0.1c4de5/>



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