onbon 仰邦科技

BX-818L Android Motherboard

Specification

Version No.: V1.0 Release Date: 2025.4.17

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Brief

Thank you for purchasing our LCD commercial display motherboard. We hope you will enjoy experiencing the excellent performance of this product. The motherboard is designed to meet international and industry standards, but may still cause personal injury and property damage if not operated properly. In order to avoid possible dangers and to benefit as much as possible from your equipment, please follow the relevant instructions in this manual when installing and operating the product.

About the software

You may not alter, decompile, disassemble, decrypt, or reverse engineer the software installed on this product, and any of the above actions are illegal.

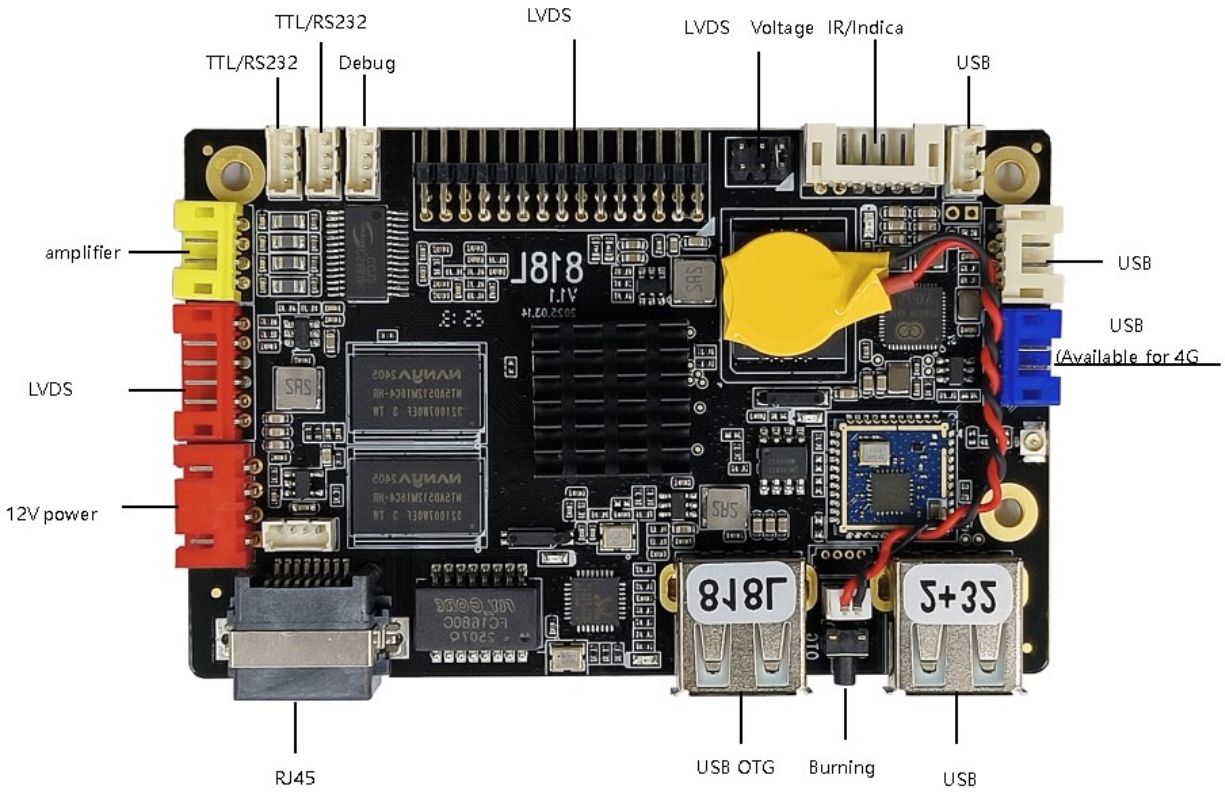
Product Overview

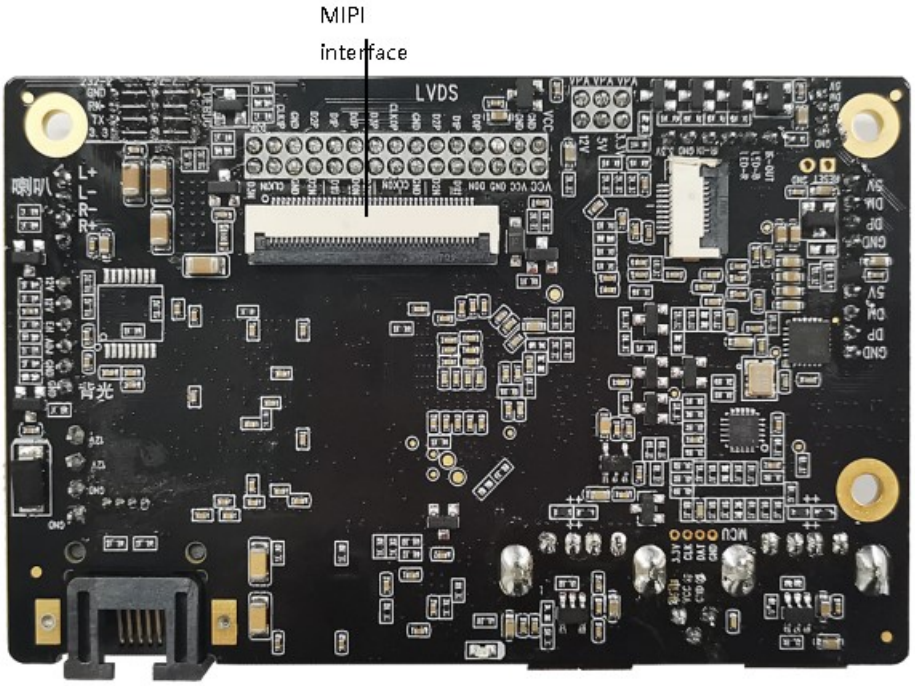
The BX-818L is an Allwinner A133 quad-core chip solution with up to 1.6GHz, Android 10.0 system, and PowerVR GE8300 GPU, which is compatible with a wide range of video formats and decoding capabilities.

The products have rich interfaces, support infrared remote control, Wi-Fi and so on. The products can be widely used in advertising machine, interactive all-in-one machine, security, medical, transportation, finance, industrial control and other intelligent control fields.

Product Appearance

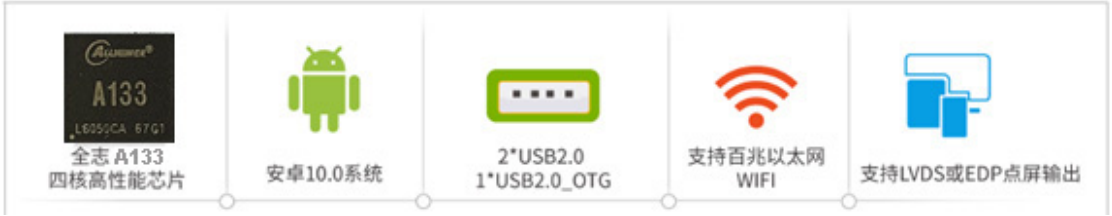
Front interface diagram:





Note: This board picture is for reference only, due to the product in the continuous maintenance, the specific shipment of the motherboard to prevail in kind!

Product Detailed Parameters



Basic Hardware Specifications

Hardware Specifications	
CPU	A133, quad-core up to 1.6GHz, Android 10.0
GPUs	GPU utilizes the PowerVR GE8300.
Storage Configuration	1gb+32gb, 2gb+32gb, 4gb+32gb
reticulation	Supports RJ45 Hundred Gigabit Ethernet and POE power supply; Support 2.4GHz Wi-Fi, support Wi-Fi 802.11b/g/n protocol. Support external USB 4G communication module
Image Rotation	Support 0 degree, 90 degree, 180 degree, 270 degree rotation, optional gravity sensor to realize automatic rotation.
display interface	1 LVDS interface (single/dual, 6-bit/8-bit), support 3.3V/5V/12V power supply 40 PIN 1*MIPI interface On-board backlight control supports 12V backlight power supply
sound frequency	Supports standard left and right channel line outputs
power amplifier	2 outputs (default 8 ohm 5 watt, compatible with 8 ohm 10 watt dual audio amplifier outputs)
touchscreens	Support USB multi-touch infrared touch, multi-touch capacitive touch, multi-touch nano-film touch, multi-touch acoustic touch, multi-touch optical touch and so on.
RTC	Built-in real-time clock function
USB	1-channel USB-2.0 HOST , 1-channel USB2.0 OTG, 1-channel 4G USB port, 2-channel extended USB port
infrared (ray)	Infrared receiver base, support infrared remote control function
LED	Power light, power on green light is always on, power off red light is always on System running light, green light blinking on power on, no light on power off
keystrokes	Burning key*1
serial port (computing)	2-channel UART, optional RS232, 1-channel DEBUG

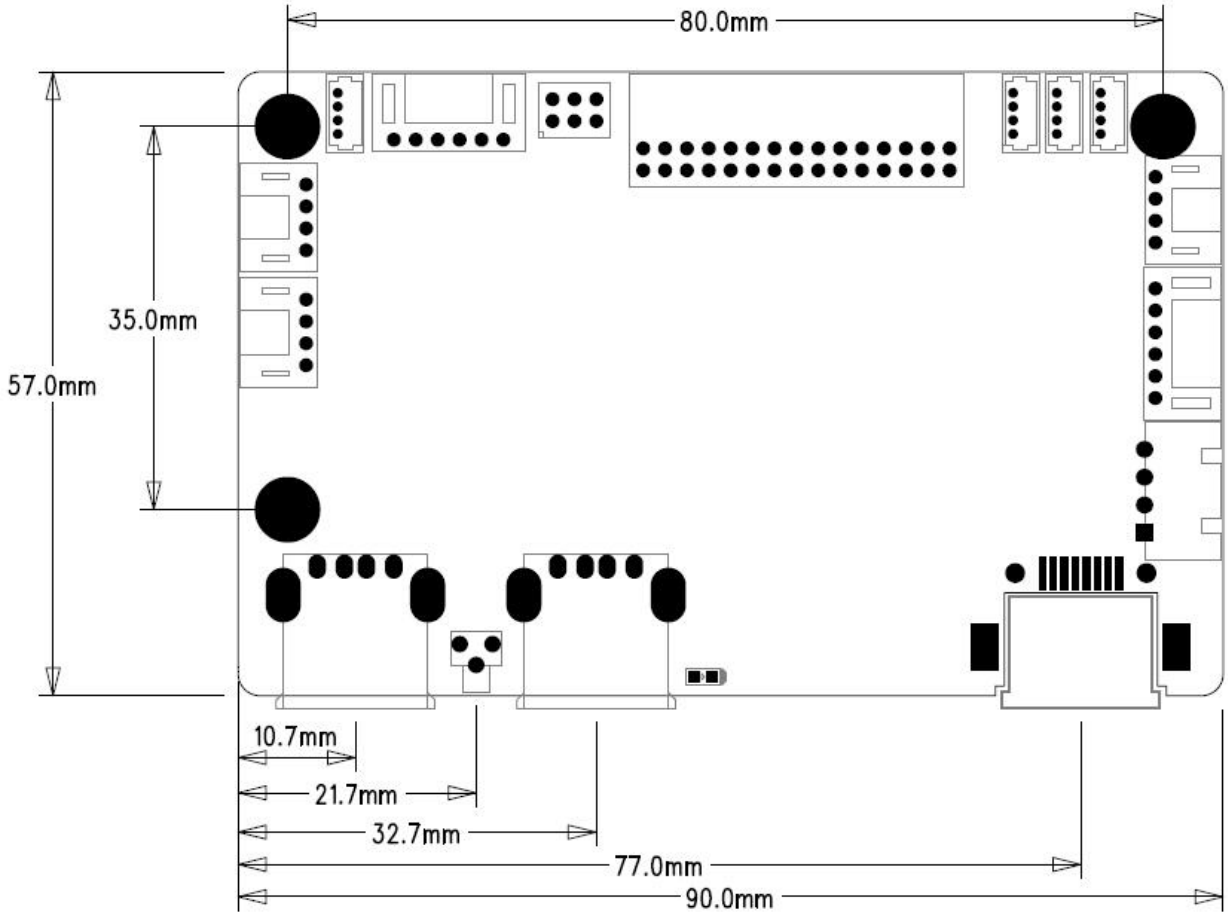
- Wet, salt spray environments and outdoor applications can be added with a triple-proof coating process.

Software Specifications	
operating system	Android 10.0
sound frequency	MP3,WMA,WAV, APE, FLAC, AAC, OGG,M4A,3GPP and other formats
video	Support AVI (H.264, DIVX, DIVX, XVID), rm, rmvb, MKV (H.264, DIVX, DIVX, XVID), WMV, MOV, MP4 (H.264, MPEG, DIVX, XVID), DAT (VCD format), VOB (DVD format), PMP, MPEG, . MPG, FLV (H.263, H.264), ASF, TS, TP, 3GP, MPG and more than 30 formats.
photograph	Supports various image formats such as JPG, BMP, PNG, etc.
multilingualism	Multi-language support

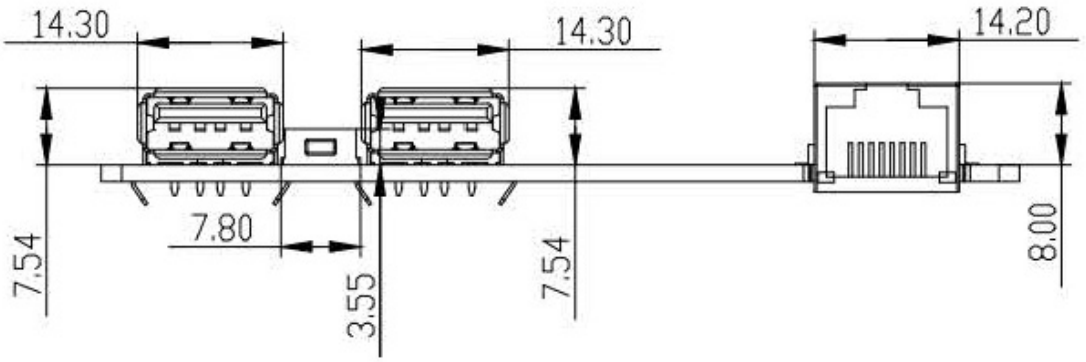
input method	Standard Android keyboard with optional third-party input method
system management	Native Android system, open root privileges, can be customized product development Real-time remote monitoring, system crash self-recovery, 7 * 24 hours unattended Support OTA remote upgrade; support USB flash disk upgrade Support for boot animation definition Supports server/standalone mode switching Wi-Fi hotspot support
system watchdog	Support software watchdog, hardware watchdog

Detailed Dimension Drawing of Motherboard

Front Dimension Drawing:



Side baffle diagram:



Product Use Guiding

Precautions for assembly and using

Please note the following (and not limited to) problem points during assembly and use.

1. Relative humidity ≤85%
2. Storage temperature: -30℃ to +70℃.
3. Operating temperature: -20℃ to +60℃ (-20℃ to +60℃)
4. Pay attention to anti-static treatment during assembly and transportation of the whole machine.
5. When the whole machine is assembled, it can be mounted underneath or on the side, but don't deform or twist the board and don't subject it to heavy pressure.
6. Retain a suitable distance between the wiring positions of each terminal so that installation does not result in squeezing the terminals.
7. The connecting wire between this board and the matching module board should not be too long, otherwise it may affect the image quality.
8. The internal wiring of the whole machine should be reasonable, and the connecting wires should not be traversed directly from the PCB board as far as possible.
9. In order to achieve better EMC effect for the whole machine, it is recommended that the screen cable between the motherboard and the screen use shielded cable.

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