Sipeed
Lichee Zero
Specifications
v1.0

Development board features:

• CPU : Allwinner V3S
        ARM Cortex-A7
        Up to 1.2GHz

• Memory:Integrated 64MB DDR2

• Storage: Reserved SOP8 SPI Flash pad, Onboard half slot TF card holder

• Interface: SDIO, UART, SPI, I2C, OTG USB, MIPI CSI, etc.

• Display: Universal 40P RGB LCD FPC Socket
        Support 272x480, 480x800, 1024x600 resolution

Version 1.0
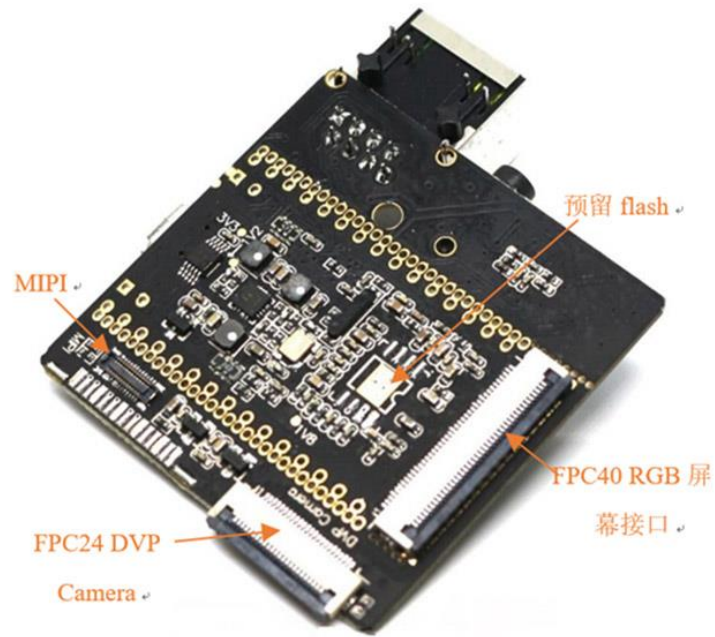
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Functional Overview

CPU	Allwinner V3S, ARM Cortex-A7, up to 1.2GHz
Memory and storage	Integrated 64MB DDR2 Reserved SOP8 SPI Flash pad (customizable patch 8~32MB SPI Nor Flash, 128MB Nand Flash) Onboard half-slot TF card holder, can be started by TF
display	Universal 40P RGB LCD FPC Socket Can be directly inserted into the common 40P 4.3/5/7 inch screen (onboard backlight driver), through the adapter board can be inserted 50P 7/9 inch screen Support common 272x480, 480x800, 1024x600 and other resolutions On-board resistive touch screen chip supporting resistive screen Onboard RGB LED
Communication Interface	SDIO x2, can be used with the SDIO WiFi+BT module SPI x1, I2C x2, UART x3 100M Ether x1 (with EPHY) OTG USB x1 MIPI CSI x1
Other interface	PWM x2 LRADC x1 Speakerx2 + Mic x1
Electrical characteristics	Micro USB 5V power supply; 2.54mm pin 3.3V~5V power supply; 1.27mm stamp hole power supply Output 3.3V and 3.0V (AVCC), optional input RTC voltage 1GHz linux no-load running current 90~100mA, full load running current ~180mA Storage temperature -40~125°C, operating temperature -20~70°C

Software function

Support linux 3.4 bsp kernel, linux 4.16 mainline kernel

Support Qt, python and other common linux applications

Lichee Zero core board pin diagram

Development board module and interface

Communicate communities and resources	
Github	https://github.com/Lichee-Pi
BBS	http://bbs.lichee.pro/t/lichee
Wiki	zero.lichee.pro
E-mail	support@sipeed.com

Size and weight	
Core board size	25.4x45.0mm
Development board size	47.0x47.0mm
Core board weight	5.0±0.1g
Development board weight	14.5±0.5g

Precautions	
start up	Zeros requires the card to start (or solder SPI flash), only plug in the USB without any phenomenon
System debug serial port	UART0, specific position reference pin diagram
USB interface	OTG usb, power and communication
Bottom debugging	It is recommended to use usb to serial port small board to connect "U0T R" and "G 5V"
Operating temperature	-20~85℃
Running current	Running Linux no-load current is about 100mA, full load current is about 150~180mA, and LCD current is about 200~300mA. No card power-on current is about 50~60mA

Target application scenario:

- IoT applications using more complex communication interfaces and protocols
- Machine vision, camera related applications
- The application of human-computer interaction interface that needs more beautiful and complex logic
- Application scenarios that require more operations (as opposed to common MCUs)
- Need to use open source software under Linux for rapid development scenarios
- High-end geek players balance in size, performance and ease of use.
- Entry level player, software engineer, hardware diy using familiar language

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