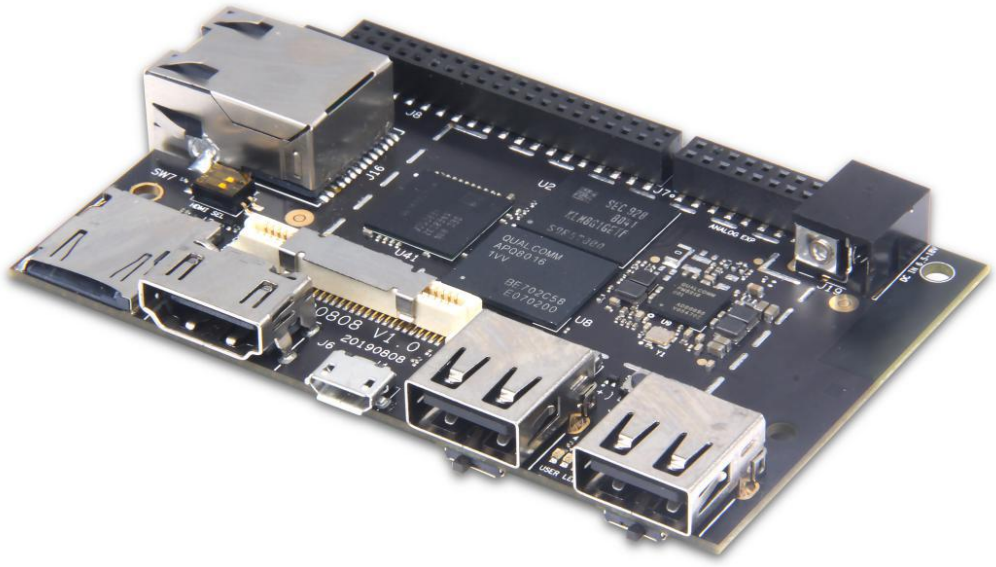
Developer Board 4 V3

Product specific guide



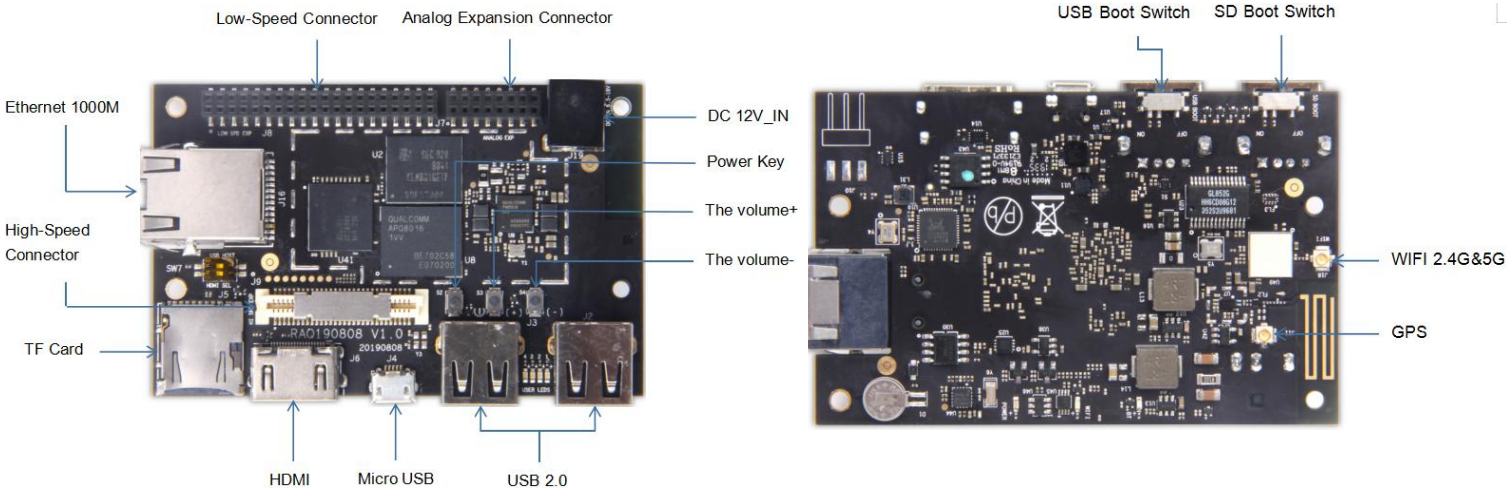
The product specification guidelines are designed to guide the correct use of the product. The content is concise and targeted to all basic and professional users. You can use this document to guide how to use other documents. It includes product application scenarios, product specifications, product interfaces, and usage steps. It is convenient for users to better understand the product functions through this document application scenario. Let's get start!

What's Developer Board 4 V3

The Developer Board 4 Version3 (hereinafter referred to as DB4 V3) is a 96Boards compliant community board based on Qualcomm® Snapdragon Quad-core ARM Cortex-A53 64-bit application processors with 512kB L2 cache,1GB or 2GB LPDDR3 533MHz,8GB or 16GB eMMC 5.0,support WiFi & LAN, USB, SD/TF card external storage.The mezzaning board defines a 60Pin high-speed connector, a 40pin low-speed connector and a 16pin analog connector.

Geniatech DB4 V3 is easily compatible with and extends various functional modules. It is widely used in various embedded fields and Internet of things. These include robots, cameras, set-top boxes, medical devices, vending machines, building automation, industrial controls, digital signage and entertainment games.

The following is DB4 V3 board of each interface, button function identification：



Interface function		
Connector Number	Feature	Quantity
High-Speed Connector	I2C	2
	MIPI CSI	2
	MIPI DSI	1
	USB 2.0	1
Low-Speed Connector	UART	1
	SPI	1
	I2S	1

	I2C	2
	GPIO	12
	DC power	1
Analog Expansion Connector	Header set	1
	Speaker	1
	FM antenna	1

Component Description	
SOC	Qualcomm® Snapdragon™ 410E (APQ 8016E)
CPU	ARM Cortex-A53 microprocessor cores up to 1.2 GHz 64-bit processor Cortex M3: Modem power manager (MPM)
GPU	Qualcomm® Adreno™ 306 GPU(up to 400 MHz 3D graphics accelerator) support for advanced APIs, including OpenGL ES 3.0, OpenCL, DirectX, and content security
RAM	1GB or 2GB LPDDR3 533MHz
Storage	8GB or 16GB eMMC 5.0 SD 3.0 (UHS-I)
Hardware Characteristics	
Wireless	802.11 a/b/g/n/ac 2.4/5GHz
Ethernet port	RJ45 10/100/1000Mbps Ethernet
USB Interface	One USB 2.0 micro B (device mode only) Two USB 2.0 (host mode only)
Camera	Integrated ISP with support for image sensors up to 13MP 4-lane CSI0 2-lane CSI1
Display Interface	4-lane MIPI_DSI
Expansion connector	1x Mezznine boards 40 pin Low-Speed connector • UART, SPI, I2S, I2C x2, GPIO x12, DC power 1x Mezznine boards 60 pin -Speed connector High • 4L-MIPI DSI, USB, I2C x2, 2L+4L-MIPI CSI Footprint for one optional 16-pin Analog expansion connector • Headset, Speaker, FM antenna
User Interface	Power/Reset Volume Up/down 7 LED indicators • 4 - user controllable

	• 3 - for Power, WLAN, BT
System Software	Android 5.1 Linux based on Debian Windows 10 IoT core
Other Specifications	
Size	Power: +6.5V to +18V Dimensions: 54mm by 85mm meeting 96Boards™ Consumer Edition standard dimensions specifications. Operating Temp: -25° C to +70° C RoHS and Reach compliant
Power	12V,2A

（More details about the product hardware can be found in the Geniatech company product hardware user manual）

Points to note when using the development board:

- Pins and needles：

One 40-pin Low Speed (LS) expansion connector One 60-pin High Speed (HS) expansion connector Footprint for one optional 16-pin analog expansion connector for stereo headset,line-out, speaker and analog line-in. Pin details can be found in the Developer Board 4 V3 Hardware User Guide documentation.***Please make sure that the PIN of the board is corresponding before use.***

- I/O Interface：

Ethernet port, USB 2.0,micro USB,GPS,HDMI,TF Card .In addition to the board's own interface,to meet customer needs,60-pin High Speed (HS) expansion connector and40-pin Low Speed (LS) expansion connector can develop different interfaces according to different requirements .

- Expansion interface：

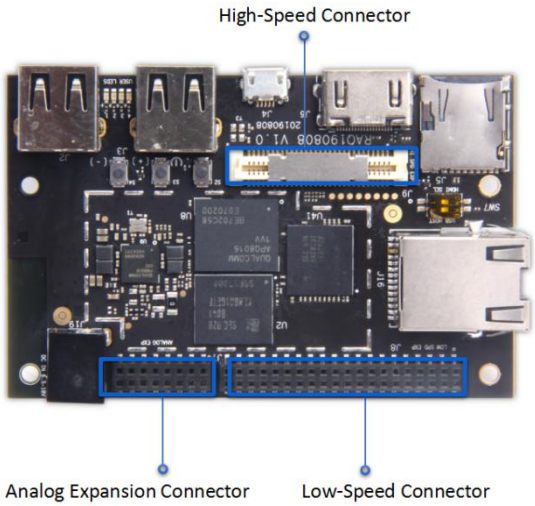
SPI x1; UART x1,I2C x4; SDIO x1 ; I2S x1, GPIO x12,etc.

- Adaptive voltage：

12V,2A

- BOOT and RESET

USB BOOT、SD BOOT、HDMI SEL、USB Host



How to use

Step 1: prepare accessories and software installation tools

When you get the product, the first step is to prepare the power adapter and the cable needed to install the software (see *the software user manual*).

Step 2: software installation. For the specific installation process, please move to the software user manual for operation (according to the software user guide, this product has Windows 10 IOT/Android/Linux Debian system).

Step 3: connect the corresponding interface as required. Please refer to *the hardware user manual* to ensure that the pins correspond is one to one.

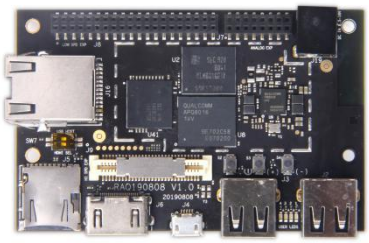
What's in side

Necessary equipment

+One DB4 V3 board

+The adapter

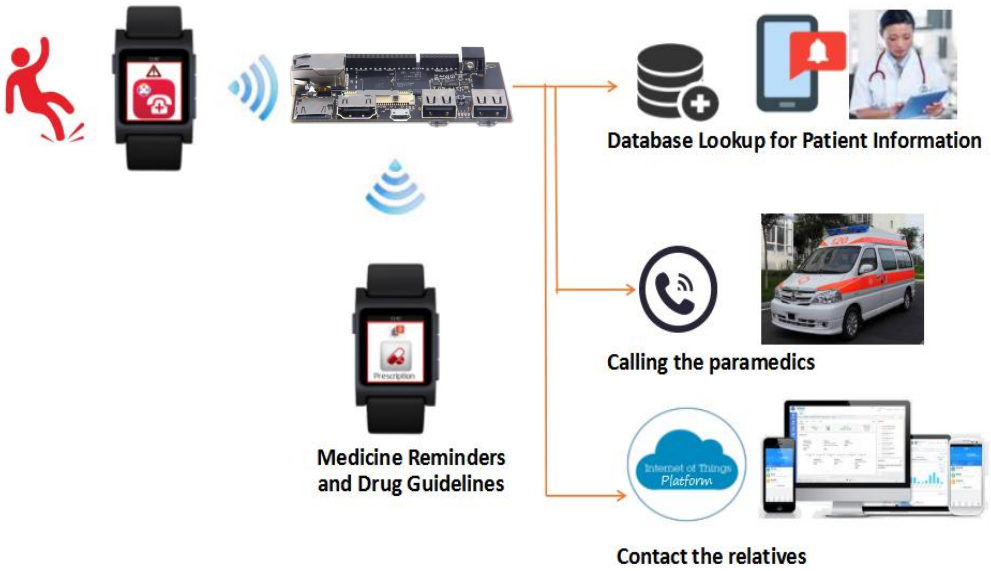
After slot connection, connect the power supply of 12V,2A ,and you can use it.



Application scenarios

IoT Healthcare - Use Real Time Information to make better decisions

Smart home - Use Real Time Information



Thank you for your time，enjoy it！If you have any technical questions, please contact us at :https://www.geniatech.com/