



Sipeed Longan Nano - RISC-V GD32VF103CBT6 Development Board

SKU 102991302

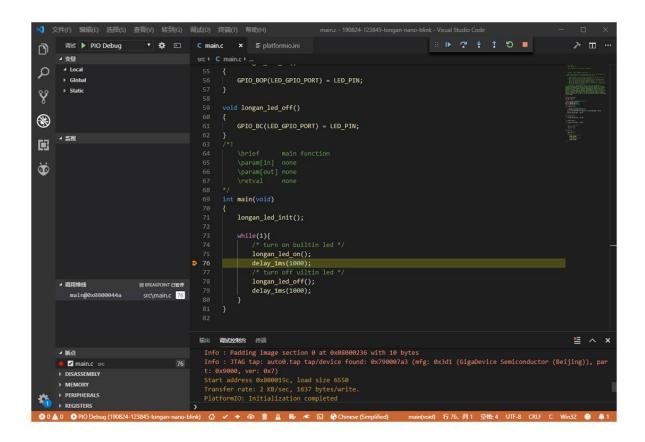
Sipeed Longan Nano is a development board based on GD32VF103CBT6 MCU with RISC-V 32-bit core of GigaDevice. It is convenient for students, engineers and geek enthusiasts to contact the new-generation RISC-V processor. Longan Nano sold by Seeed comes with a 0.96inch 160x80 IPS RGB LCD and an acrylic transparent case.

GD32VF103CBT6 is a Bumblebee core based on Nuclei System Technology. Support RV32IMAC instruction set and ECLIC fast interrupt function. Core power consumption is only 1/3 of that of traditional Cortex-M3.

Longan Nano development board, double-row pin layout design, needle spacing 700 mil, can be inserted directly into breadboard; on-board 8M passive crystal oscillator, 32.768 KHz RTC low-speed crystal oscillator, Mini TF slot, and use Type-C USB interface.

Longan Nano supports multiple download methods: USB DFU download, UART ISP download, JTAG download. In the USB DFU download mode, you only need a USB Type-C cable to download the program to the development board. At the same time, Longan Nano supports the standard JTAG interface, which can be debugged online using the in-store RISC-V debugger or any JTAG-enabled debugger such as J-Link.

Meanwhile, Sipeed has adapted the PlatformIO IDE for the Longan Nano development board, which can be visually developed on multiple platforms such as Windows/Linux: https://github.com/sipeed/platform-gd32v



Features

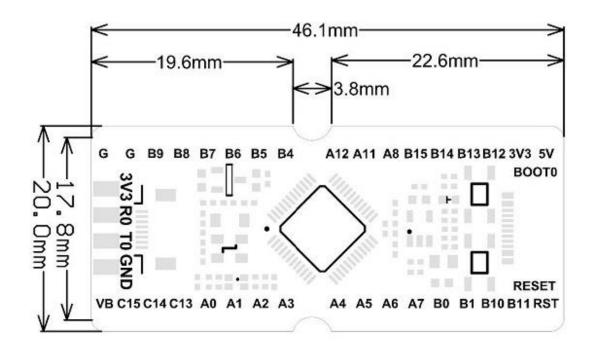
- Chip built-in 128KB Flash, 32KB SRAM
- 4 x general purpose 16-bit timer, 2 x basic 16-bit timer, 1 x advanced 16-bit timer
- Watchdog, RTC, Systick
- 3 x USART, 2 x I2C, 3 x SPI, 2 x I2S, 2 x CAN, 1 x USBFS (OTG)
- 2 x ADC (10 channel), 2 x DAC

specifications

SPECIFICATION		
CPU	GD32VF103CBT6 based on RISC-V 32-bit core	
Kernel power consumption	Only 1/3 of the traditional Cortex-M3	
Chip built-in	128KB Flash, 32KB SRAM	
Peripheral	 4 x general purpose 16-bit timer, 2 x basic 16-bit timer, 1 x advanced 16-bit timer Watchdog, RTC, Systick 3x USART, 2 x I2C, 3 x SPI, 2 x I2S, 2 x CAN, 1 x USBFS (OTG), 2 x ADC (10 channel), 2 x DAC 	
SOFTWARE		
IDE	PlatformIO IDE, Support debugging, Arduino	
Compile Toolchain & Debugger	GCC, OpenOCD	
Operating system	RT-Thread、LiteOS	
HARDWARE		
Storage expansion	Short body TF card slot	
Display expansion	8pin 0.5mm FPC Block Expansion 160x80 RGB IPS LCD (SPI Interface)	
Debug interface	2x4 pin leads to JTAG debug interface	

Connector	Double row 2.54 pitch pin
Crystal	8MHz Passive High Speed Crystal +32.768KHz Low Speed RTC Crystal

Dimension



Part List

Part List	
Sipeed Longan Nano Development Board	x1
0.96inch 160x80 IPS RGB LCD	x1
Acrylic transparent case	x1

ECCN/HTS

ECCN	3A991.a
HSCODE	8543709990
UPC	

Documents

Wiki

Resource Download

GD32VF103_User_Manual_EN_V1.0.pdf GD32VF103_Datasheet_Rev1.0.pdf Bumblebee core datasheet_en.pdf Bumblebee core intro_en.pdf

Bumblebee kernel instruction set documentation Github SDK HDK



