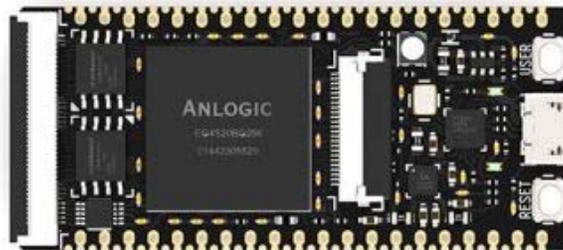


TANG PRiMER FPGA Dev. Board

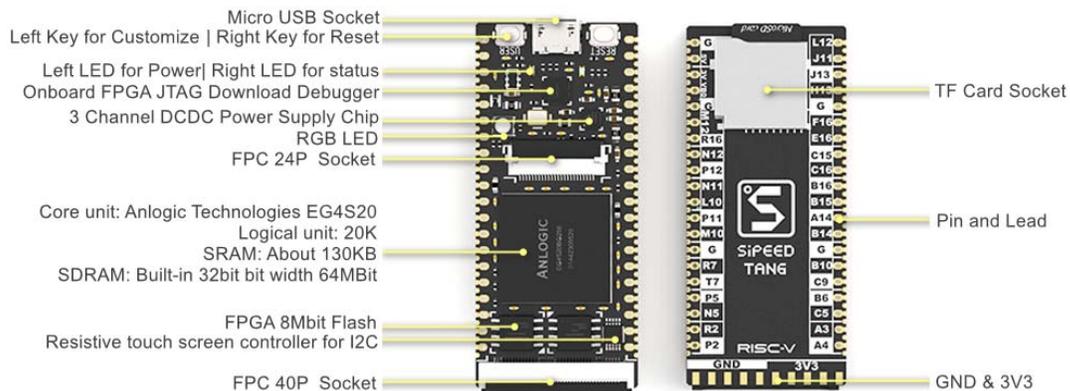


Taste RISC-V | Breadboard Friendly | Cost-effective

Sipeed TANG PRiMER FPGA Development Board

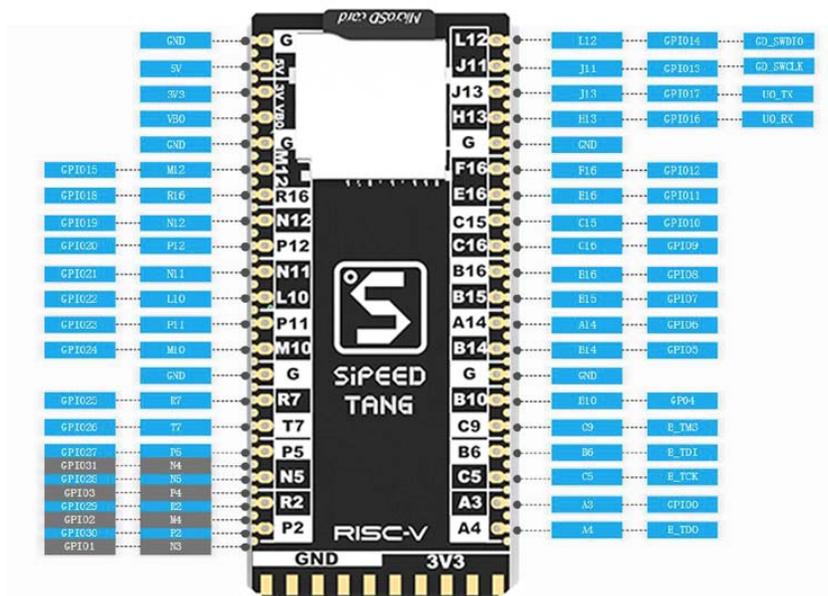
SKU 102110202

Tang features Anlogic EG4S20 FPGA – unrelated to Amlogic – which run a RISC-V softcore, and all is packaged in a small small form factor.



Specifications:

- **Core unit:** Analogic Technologies EG4S20
- **Logical unit:** 20K (LUT4/LUT5 hybrid architecture)
- **SRAM:** About 130KB
- **SDRAM:** Built-in 32bit bit width 64MBit
- **Flash:** FPGA configuration Flash, 8Mbit User Flash, nor/nand optional
- **Download and debug:** Onboard FPGA JTAG Download Debugger, RV debugger can debug hummingbird core
- Interface:
 - FPC40P socket, can be connected to RGB LCD, VGA adapter board
 - FPC24P socket, can be connected to DVP camera, high speed ADC module
 - Resistive touch screen controller for I2C interface, used with RGB LCD
- Pin and lead:
 - The adjacent pins LVDS are drawn in the same length, leading out 8 GCLKs, and all 8 ADCs are taken out.
 - Double row pin spacing 900mil, compatible with breadboard development
 - Half hole leads to an extra 40 IO, and the whole board leads to 130+ IO
- Electrical characteristics:
 - Micro USB 5V power supply; 2.54mm pin
 - 3.3V~5V power supply; 1.27mm stamp hole power supply
 - 3-channel DCDC power supply chip, stable and efficient power supply
 - independent adjustment of Bank0 IO level



Software function

- Integrate, download, debug features with TD IDE
- IDE has a rich IP core
- [Support hummingbird risc-v soft core](#)

Target application scenario

- High-speed communication interface interconnection
- Learning, debugging, research of soft cores such as RISC-V
- Machine vision processing
- Parallel computing acceleration

Size and weight	
Development board size	25.4x56.0mm
Development board weight	6.2±0.1g
Precautions	
RV debugging	When using the RV debugger, if you need to use USB power, try to use a shorter USB cable.
Micro-USB	The USB interface can be used for power supply, and the interface is fragile. Please pay attention to the use.
Download and debug	On-board FPGA JTAG download debugger, debugging hummingbird core requires other debuggers, such as RV, JLink
Operating temperature	-20~85°C
Power consumption and current	No-load current is about 50mA

ECCN/HTS

ECCN	3A991.a
HSCODE	8471504090