

TANG PRiMER FPGA Dev. Board

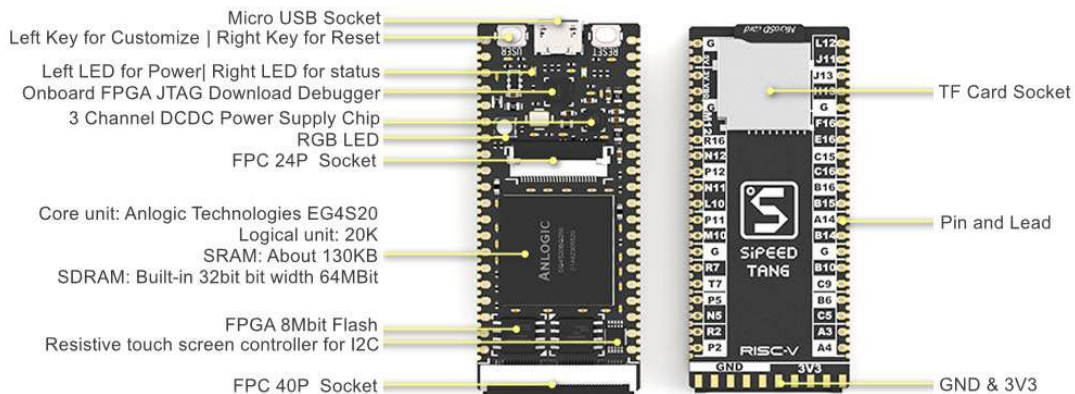


Taste RISC-V | Breadboard Friendly | Cost-effective

Sipeed TANG PRiMER FPGA Development Board

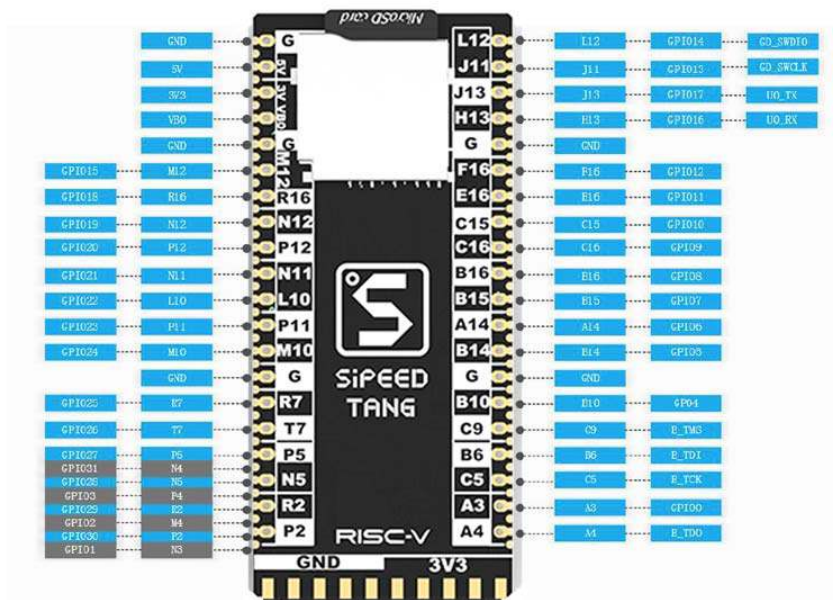
SKU 102110202

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:** Anlogic 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

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|-------------------------------|--|
| 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 |