



SG2042 LINUX UPSTREAM 进展介绍

PLCT Lab OpenDay 2023

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SG2042 介绍

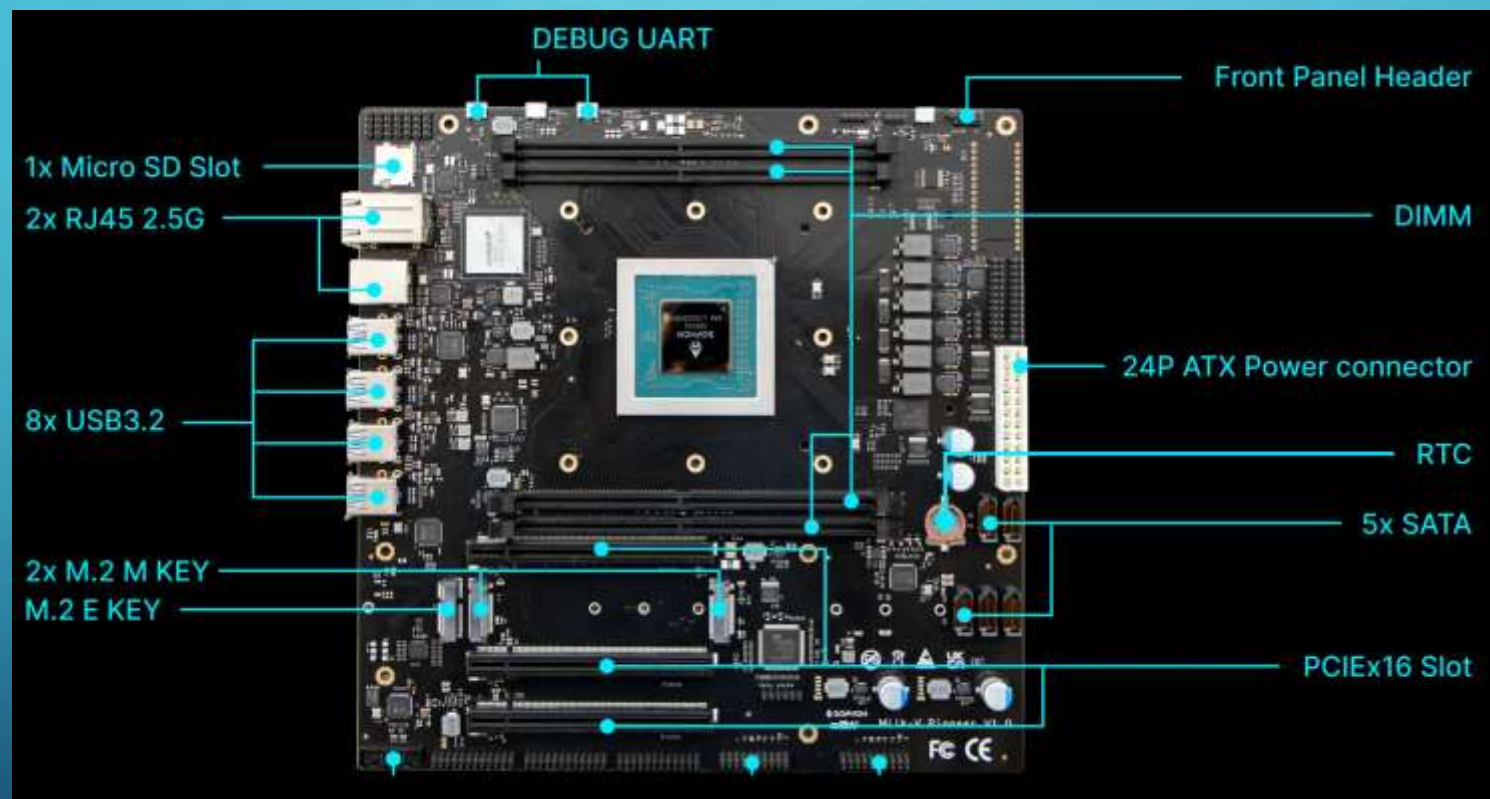
行业首款服务器级 RISC-V CPU/SoC

- ✓ RISC-V cpu core (T-Head C920) , IMAFDC + RVV 0.7
- ✓ 16 clusters on chip x 4 cores per cluster = 64 cores
- ✓ 2.0GHz CPU frequency
- ✓ 64KiB L1 I-Cache and 64KiB L1 D-Cache per core
- ✓ 1MiB unified L2 cache per cluster
- ✓ 64MiB system level L3 cache
- ✓ PCIe/Ethernet/MMC/SDIO/SPI/I2C/UART/.....



更多信息: <https://en.sophgo.com/product/introduce/sg2042.html>

MILK-V PIONEER 介绍 (1)



更多信息: <https://milkv.io/pioneer>

MILK-V PIONEER 介绍 (2)



This CPU is FREE! - Milk-V Pioneer with RISC-V: <https://www.youtube.com/watch?v=vaMxTsm53UU>

更多信息: <https://milkv.io/pioneer>

LINUX UPSTREAM 进展介绍 (1)

Component	Status	Patch Submitted Date	Link	In mainline since version x
Minimal system (UART console with fixed frequency)	Accepted	Oct. 7, 2023	V5: https://patchwork.kernel.org/project/linux-riscv/cover/cover.1696663037.git.unicorn_wang@outlook.com/	6.7
Clock subsystem + Reset + Pin-ctrl	Under Review	Dec. 8, 2023	V6: https://patchwork.kernel.org/project/linux-clk/cover/cover.1701997033.git.unicorn_wang@outlook.com/	N/A
SoC/Peripherals drivers (MMC/MTD/PWM/I2C /Network/PCIe/...)	Not Started	N/A	N/A	N/A

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Clock subsystem + Reset + Pin-ctrl	Under Review	Dec. 8, 2023	<p>Linux Patches Updated For 64-Core RISC-V Milk-V Pioneer mATX Board:</p> <p>https://www.phoronix.com/news/Milk-V-Pioneer-Linux-Patches</p>	
SoC/Peripherals drivers (MMC/MTD/PWM/I2C /Network/PCIe/...)	Not Started	N/A		

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SoC/Peripherals drivers (MMC/MTD/PWM/I2C /Network/PCIe/...)	Not Started	N/A	N/A	N/A

LINUX UPSTREAM 进展介绍 (2)

SOPHGO DEVICETREES

M: Chao Wei <chao.wei@sophgo.com>

M: Chen Wang <unicorn_wang@outlook.com>

S: Maintained

F: arch/riscv/boot/dts/sophgo/

F: Documentation/devicetree/bindings/riscv/sophgo.yaml

<https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/tree/MAINTAINERS?h=v6.7-rc5#n20188>

LINUX UPSTREAM 进展介绍 (3)

- Sophgo Linux Repo: <https://github.com/sophgo/linux-riscv>
- My Linux Repo.: <https://github.com/unicornx/linux-riscv>
- SG2042 TRM: <https://github.com/sophgo/sophgo-doc/tree/main/SG2042/TRM>

LINUX UPSTREAM 进展介绍 (4)

感谢

- Linux 社区其他关注 Sophgo 产品 upstream 的小伙伴：
 - dlan@gentoo.org
 - guoren@kernel.org
 - inochiama@outlook.com
 - jszhang@kernel.org
 - qiujingbao.dlmu@gmail.com
 -
- Sophgo SG2042 项目组/开发组的小伙伴。

谢谢！