X-HEEP: an open-source eXtendible Heterogeneous Energy-Efficient RISC-V Platform for Embedded-class systems

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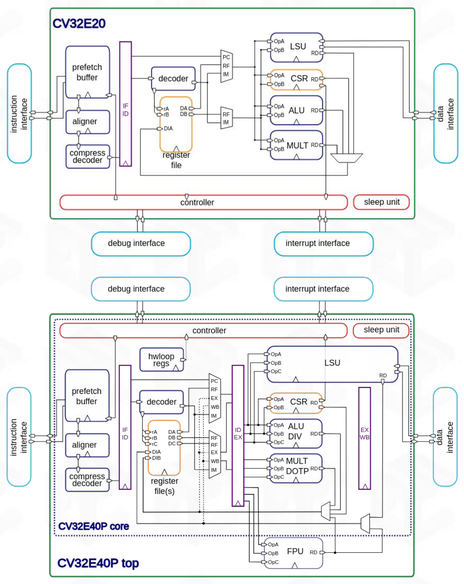
X-HEEP: open-source RISC-V uC for EVERYONE

CONFIGURABLE



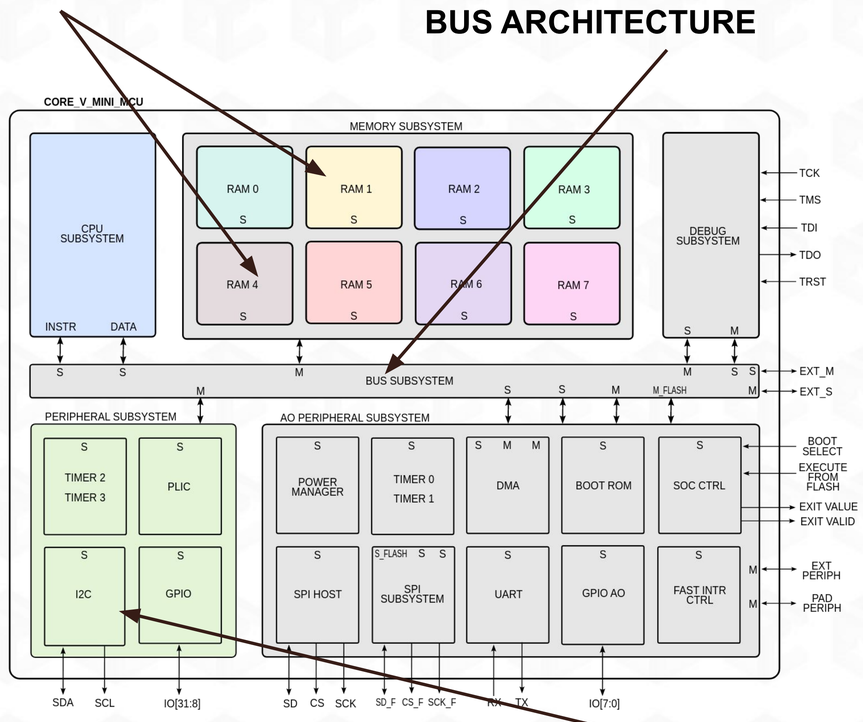
RELIES ON SUCCESSFUL IPs

RELIES ON SUCCESSFUL PACKAGE MANAGER

FUSESOC

AMOUNT OF MEMORY

BUS ARCHITECTURE



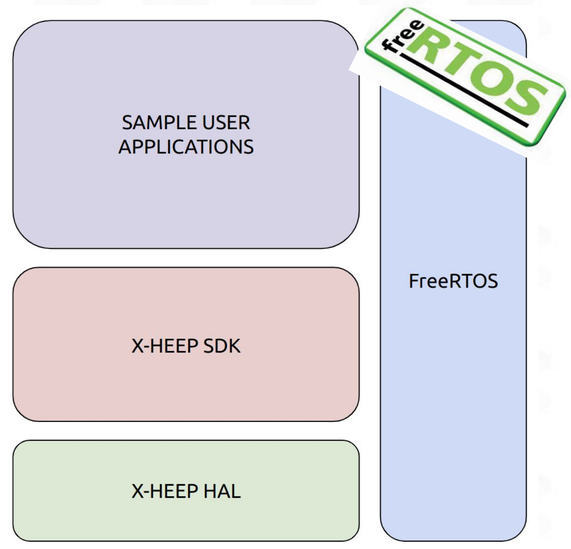
INCLUDE PERIPHERALS

EXTENDABLE

EASY PLUG&PLAY YOUR ACCELERATOR

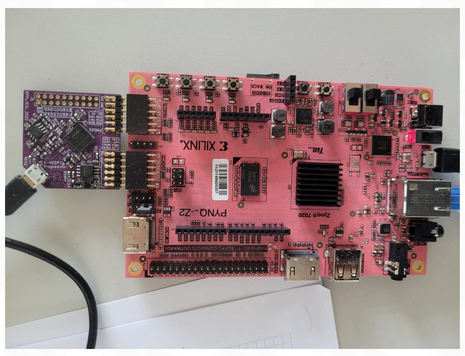
SUPPORT FOR MULTIPLE COMPILERS

COMPLETE FW STACK



SUPPORT MULTIPLE TARGES

ASIC, FPGA



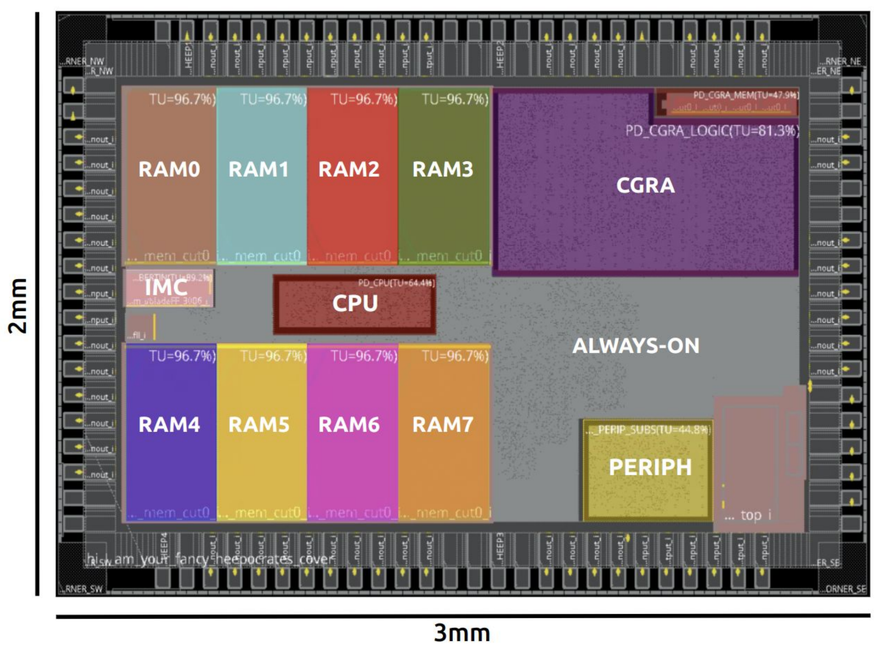
SUPPORT FOR MULTIPLE EDA TOOLs

EASY TO USE

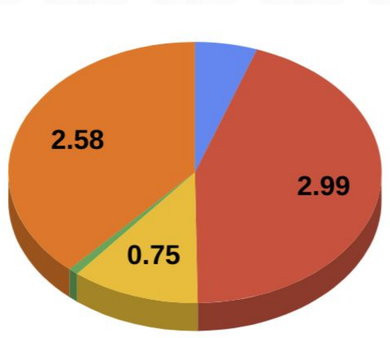
STUDENTS, EDUCATION, IP DEVELOPERS

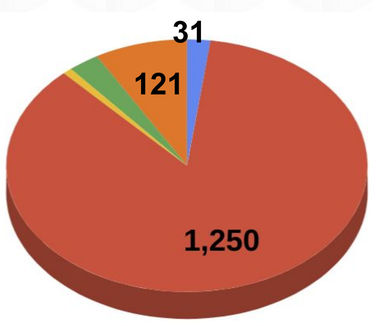
1st TSMC65nm LP IMPLEMENTATION

cve2 CPU, 256kB SRAM, 10 power domains
eXtended with CGRA and IMC blocks



TSMC65 LP LVT	SPEED: 32kHz - 250MHz
POWER @1.2V,100MHz (mW)	AREA (kGE)





CPU - cv32e2/Ibex · 256KB SRAM · DEBUG · BUS · PERIPHERALs