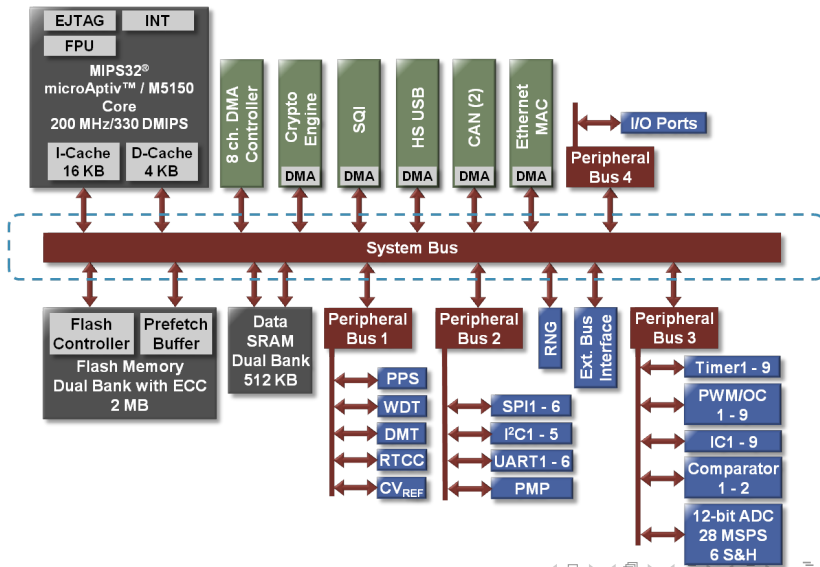


# 20CYS112 - Computer Buses and Processor

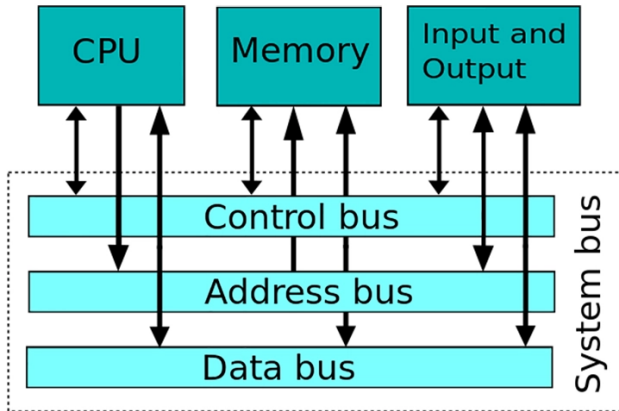
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Computer Bus is a communication channel (shared transmission media) between major components where only one transmission is possible

- **Data Bus:** Transfer binary data between the CPU, memory and IO
- **Address Bus:** Unidirectional transmission of address to memory and IO
- **Control Bus:** Transfer Control and timing signals



RISC	CISC
Reduced Instruction Set Computer	Complex Instruction Set Computer
Instruction set has few commands to load, evaluate and store	Single Instruction to load, evaluate and store
Fixed Size Instructions	Variable Size Instructions
Only Reg to Reg Operations	Perform Reg to Reg, Reg to Mem and Mem to Mem
Larger Code Size	Smaller Code Size
Software Focussed	Hardware Focussed
One Cycle Execution Time	More than one cycle Execution
Requires many transistors to create memory registers	Requires fewer registers to store complex instructions
Examples: SUN's SPARC, Power PC, RISC-V	Examples: AMD, Intel x86, VAX