

# HIGH RELIABILITY 32-BIT RISC-V PROCESSOR CORE

Name	Description	
CC-RV32HR-C	High Reliability 32-bit RISC-V Processor Core	
Category	Type	Status
RISC-V Cores	RISC-V	Under Validation
Deliverables		
<ul style="list-style-type: none"> <li>◆ RTL code</li> <li>◆ User manual</li> <li>◆ Integration manual</li> <li>◆ Software manual</li> </ul>	<ul style="list-style-type: none"> <li>◆ Testbench</li> <li>◆ SDK/IDE</li> <li>◆ Support</li> </ul>	
Features		
<ul style="list-style-type: none"> <li>◆ High Performance 32-bit RISC-V CPU</li> <li>◆ Proprietary 6-stage pipeline</li> <li>◆ RV32GCX instruction set</li> <li>◆ Variable delayed dual-core lockstep operation</li> <li>◆ Split dual-core mode for high-performance operation</li> <li>◆ Up to 1.32 DMIPS/MHz/Core</li> <li>◆ Up to 2.26 CoreMark/MHz/Core</li> <li>◆ Custom instruction set extension</li> </ul>	<ul style="list-style-type: none"> <li>◆ Set-associative caches with data snooping and parity and ECC</li> <li>◆ Power-down mode</li> <li>◆ On-chip debug support</li> <li>◆ Separate or joint Instruction/Data interface</li> <li>◆ JTAG and UART Debug Link</li> <li>◆ Free GNU-Based C/GDB toolchain</li> <li>◆ Cycle accurate simulator</li> <li>◆ Technology independent IP Core</li> <li>◆ Flexible licensing scheme</li> </ul>	

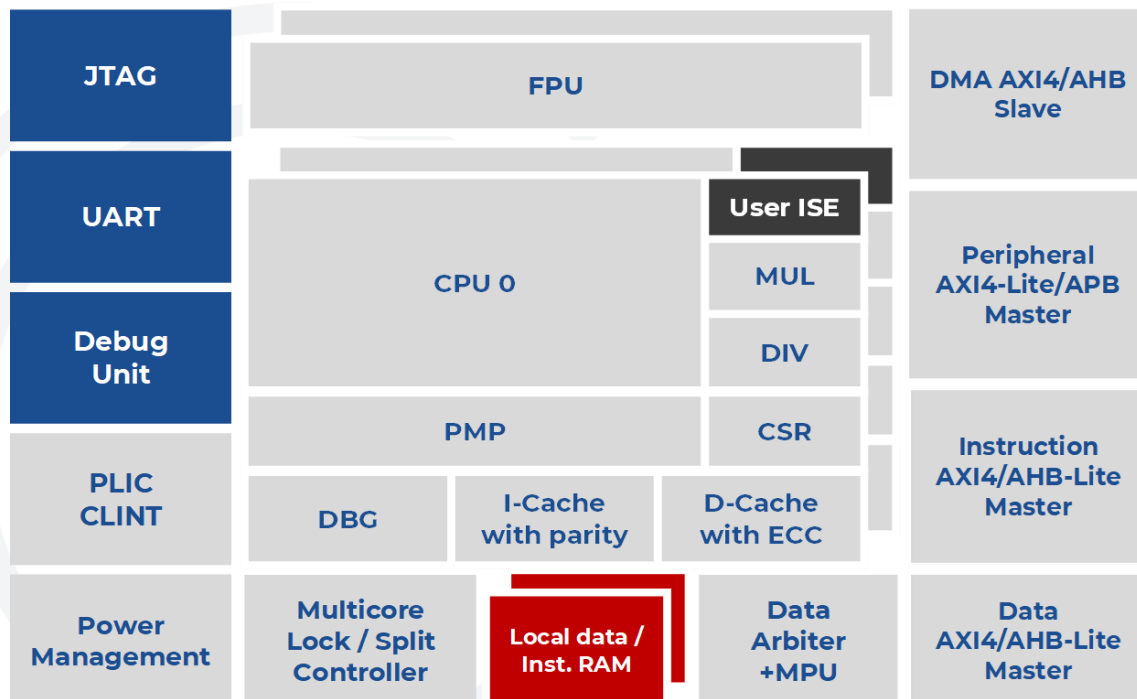


Figure 1. Simplified block diagram.