



JANUS 200 MICROPROCESSOR CORE

Janus 200 is an advance 32 bit embedded processor core combining the Janus 2cc core with:

- 8KB unified Low Power Cache
- AMBA AHB Interface
- Protection Unit
- 8 Entry Write Buffer

The on-chip unified cache and the write buffer, substantially raise the average execution speed and reduce the average amount of memory bandwidth required by the processor

Applications

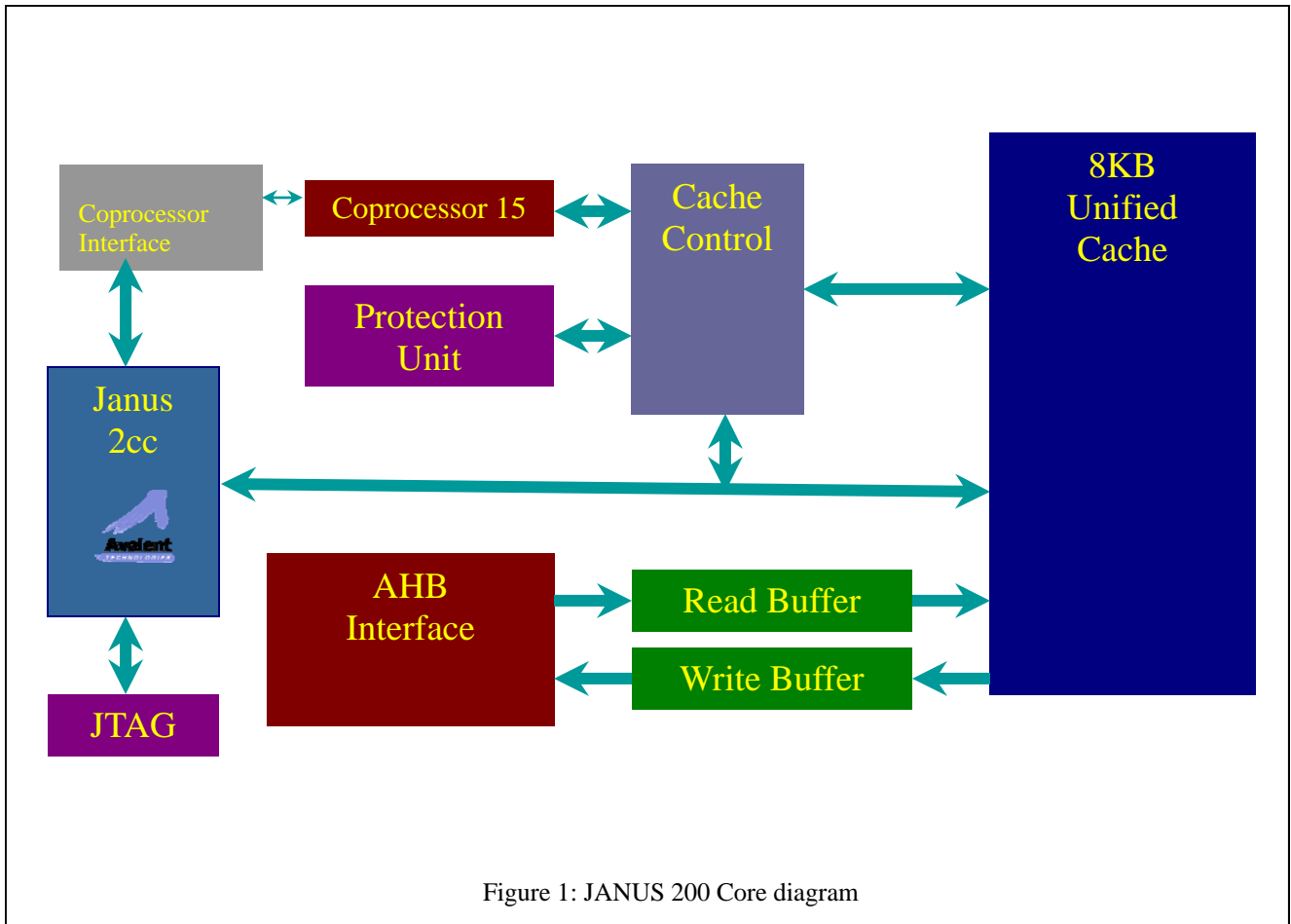
- Embedded applications running RTOS
- Internet Appliances
- Mass storage controllers
- Networking Devices
- Printer controllers
- Embedded control applications
- Modems and soft modems
- Residential gateways and routers
- Automotive control solutions
 - Cruise control
 - ABS
 - Hands-Free interfaces
- 32 bit microcontroller
- MP3 player
- Wireless applications

Performance

- 200 MHz clock frequency
- <0.50 mW/Mhz
- Typical size 2.84mm²
- Technology
 - 0.18um TSMC
 - 0.18um UMC

Features

- 32/16 bit RISC Architecture
- Four-stage pipeline
- 16 Bit Code Compression
- Fast 32x32 MAC instructions
- Optimized Load Latency
- Fast interrupt handler
- 8KB unified power saving cache
 - 4-Way Set Associative
 - Random Replacement Algorithm
 - Cache Locking on per way basis for real time operations
 - Write-through cache policy
- Flexible 4 Entry Protection can be used to define 4 memory region parameters:
 - Cacheable
 - Bufferable
 - Read/Write Permissions
 - Size
 - Base Address
- 8 Entry write buffer to prevent the processor from stalling when writes to external memory are performed
- AMBA AHB Interface
- Memory BIST, and Scan
- Fully static design
- JTAG based debug capability



TOOLS

- Extensive SDK Support
- Include support for SDK from
 - Avalent
 - Sophia
 - YDC
 - Lauterbach
- Janus development board
- SDK target C-model

SUPPORT

- Training
- Design consulting and design support

DELIVERABLES

- GDSII Data in specified technology and foundry
- Encrypted RTL Simulation Model
 - Synopsys VCS
 - Cadence Verilog XL/NC Verilog
 - Mentor Graphicc ModelSim
- Test vectors
- ATPG vectors
- User manual
- Janus development software tool kit
- Janus development board

CONTACTING AVALENT

UNITED STATE OF AMERICA

Avalent Technologies Inc.
405 River Oaks Parkway
San Jose, CA 95148

Tel: +1-408-435-1188

Fax: +1-408-435-1511

Email: info@avalent.com

JAPAN

Avalent Technologies Inc.
Japan

Email: japansales@avalent.com