

Portable and Scalable Supercomputing

Meeting the Needs of
HPEC with PIM

Poster Session B.14: 9/21/05

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Application Specific Multi-Core Solutions

- Founded in 1989
- World Class Customer Base
- A History of Growth and Profitability
- Major Investor: The Carlyle Group



20 processors on a single SOC
flying in F-16 aircraft today!



Meeting Today's Needs

- A Growing need for Cost Effective Autonomous Intensive Compute Capacity Close to the Sensor
- Customers have Critical Requirements
 - Performance, Size, Weight & Power Requirements
 - Security (Anti-Tamper)
 - Reliability & Fault Tolerance

HPEC User Community

A Scalable, Deeply Coupled (PIM) Processor In Memory Architecture

- Backward compatible
- Low power, small form factor
- Ultra-low component count
- Integrated Security (protected on-chip execution)
- Trusted, on-shore, end-to-end process
- Concentrated General- Purpose Compute Power

Multi-Core PIM Can Address the Challenge

- Security:
 - On chip storage and execution along with additional security features minimizes external tamper susceptibility
- Cost Effective & SWAP :
 - Innovative Host/Task Processor Architecture Minimizes Modification of Target Application
 - Compatible to Existing Systems
 - Ultra Low Part Count Vastly Increases Reliability while Reducing Power Consumption
- Performance :
 - Unprecedented Memory and Processor-to-Processor Bandwidth

