



Tempe Program

Bus & Board 2003

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The History of VME @ Tundra

- Tundra is the leader in VME system interconnect
 - Shipping VME bridge solutions for the past decade
 - Strong supporter of the VME Renaissance



VME Renaissance – Tempe

- Tempe is a PCI/PCI-X to VME Bridge
 - Supports development of next generation VME Single Board Computers and I/O Peripherals
- Motorola announced Tempe at Bus & Board in 2002
- Motorola committed to make Tempe available to the whole embedded market



Motorola & Tundra Partnership

- Agreement signed in August 2002 to collaborate on Tempe Program
- Motorola responsibilities
 - Development of production quality Tempe silicon
- Tundra responsibilities
 - Tempe Early Access Program
 - Verification support to Motorola
 - Pre silicon emulation
 - Post silicon verification
 - Management of marketing, manufacturing, sales and support of Tempe



Tempe Functionality Overview

- VME Interface
 - Support for legacy protocols
 - Protects existing VMEbus card investments
 - Support for higher bandwidth 2eSST protocol
- Local Bus Interface
 - Supports the latest processor & processor host bridges
 - PCI mode: 33 to 66 MHz
 - PCI-X mode: 50 to 133 MHz
- Dual DMA Channels



Tempe Positioning

- Tempe addresses the key requirements for the design of next generation VME boards
 - Useable bus bandwidth has increased significantly
 - PCI/PCI-X up to 1 GByte/s
 - VME up to 320 MBytes/s
 - Efficient PBGA package
 - Low power dissipation



Tempe Development Status

- Verification occurring in simulation & with FPGA emulation
- Release to Manufacture in the 1st Half of CY2003





Tempe Early Access Program

- The Early Access Program allows for controlled introduction of Tempe during CY2003
 - Focused on a *limited* set of participants
 - Desire to obtain broad application representation
- Benefits of participation
 - Access to high performance silicon
 - Time to market advantage
 - Focused technical support



Summary

- Tempe release to manufacture is in the 1st Half of CY2003
- Tundra is working with Tempe Early Access Program participants in CY2003
- General availability of Tempe will be in CY2004