**NEWS RELEASE**

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Carbon Releases Solution for **AMBA TLM-2.0 Modeling**

*Enables Virtual Mode Reuse in Any SystemC Environment*

ACTON, MASS. — February 17, 2011 — Carbon Design Systems™, the leading supplier of tools for the automatic creation, validation and deployment of system-level models, today unveiled a TLM-2.0 solution for the AMBA® protocol to enable modeling the widely adopted AMBA protocols with SystemC TLM2-0.

Available from [Carbon’s IP Exchange](#) at no charge, the software contains definitions and extensions for AMBA 3 AXI3™, AHB™, AHB-Lite™ and APB™ protocols at the loosely timed, approximately timed and cycle-timed levels of abstraction. Adapters are provided to bridge between abstraction levels and to connect directly to the AMBA Programmer’s View (PV) interface used by ARM’s Fast Models.

“Many designers encounter compatibility problems when attempting to reuse TLM-2.0 models for the AMBA protocol from other companies or even within their own company,” comments Bill Neifert, chief technology officer (CTO) at Carbon Design Systems. “The market has needed an accessible, non-proprietary solution that provides a set of definitions for TLM-2.0 for AMBA to run in any SystemC environment. With this solution, Carbon’s continues to deliver tools to ease the process of virtual platform model reuse for all designers using AMBA protocols, regardless of their EDA vendor.”
“Our integrations of complex System-On-Chip ICs that include the AMBA protocol and other protocols, exploit TLM based SystemC virtual platforms,” says Alain Clouard, manager of System Platforms Group, Home Entertainment and Displays, STMicroelectronics. “We welcome protocol owners, such as ARM, teaming with partners to define SystemC representation of their protocols. Model suppliers adopting a unique and TLM-based cycle-accurate (CA) definition of the AMBA protocol, is making it easier for IP users to integrate, where needed, various CA models for AMBA, such as ‘Carbonized’ IP models, in higher-level simulation platforms such as ST’s TLM_TAC virtual SoC. Enabling the communication of such CA model with higher-level TLM AT or TLM LT models in this virtual SoC, is facilitated by the common base TLM standard.”

About the Package

The TLM-2.0 for the AMBA protocol solution will execute in any SystemC environment and contains no runtime licensing. Using the source, examples and documentation provided in the kit, designers can create models representing AMBA intellectual property (IP) blocks at any level of abstraction.

To ensure compatibility with ARM’s Fast Models, Carbon has teamed with ARM to include the PV definitions for AMBA used by the Fast Models’ TLM-2.0 interface as part of the kit.

“ARM is pleased to support efforts to create virtual models of AMBA protocol IP and have provided our PV SystemC/TLM-2.0 compliant interface to this effort to help ensure seamless interaction with our widely adopted Fast Models,” remarks Tony Smith, product manager, Fast Models at ARM.

Availability
The TLM-2.0 for the AMBA protocol solution is available for immediate
download from Carbon’s IP Exchange web portal located at:
www.carbonipexchange.com. To access the tool, select “Free Downloads” from the IP
Categories menu.

About Carbon Design Systems

Carbon Design Systems connects hardware and software teams with a unified
virtual platform that offers 100% accuracy for architectural analysis and performance
analysis, and hundreds of MIPs performance for pre-silicon firmware and software
development. Solutions are based on open industry standards, including SystemC, IP-
XACT, Verilog, VHDL, OSCI TLM, MDI, SCML, CASI, CADI and CAPI. Carbon’s
customers are systems, semiconductor, and IP companies that focus on wireless,
Networking, and consumer electronics. Carbon is headquartered at 125 Nagog Park,
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