

# Gennum's Snowbush IP Group Offers Simulation Models for IP at 8Gb/s and Beyond

## Delivers IBIS-AMI Models for PCI Express 3.0, Provides the Industry's First Back-channel Simulation Support in Collaboration with Sigrity

BURLINGTON, Ontario, November 15, 2010 – Gennum Corporation (TSX: GND) today announced that its Snowbush IP group will be the first to support its high-speed PHY IP with simulation models based on the industry-standard IBIS-AMI (I/O Buffer Information Specification-Algorithmic Modeling Interface) specification. Newly developed in collaboration with Sigrity, the models give system designers unprecedented visibility into IP system-level performance enabled by first-time support for back-channel simulation. The IBIS-AMI models are a highly valued deliverable for IP supporting data rates of 8 gigabits per second (Gbps) and higher, and the Gennum Snowbush IP group therefore intends to offer these models on all of its high-speed PHY IP going forward, beginning with its PCI Express 3.0 PHYs.

“At speeds of 8 Gbps and higher, traditional simulation methods aren't providing enough visibility into how high-speed serial links perform within a system,” said Kevin Walsh, Marketing Director for Gennum's Snowbush IP group. “With these new models, customers can evaluate the signal integrity of PHY IP from the chip to the board to the backplane. By providing a higher level of support for our IP, we reduce the need for costly re-spins and reduce the development time of next-generation networking equipment.”

The new models will allow Snowbush PHY IP customers to perform efficient signal integrity analysis of their multi-gigabit serial links with correlated models so that they can look at the impact of transmitter (Tx), receiver (Rx), and channel properties along with those of adjacent signals.

### First to Apply Back-channel Support to the IBIS-AMI Specification

IBIS-AMI is a modeling standard for SerDes transceivers that enables fast, accurate and statistically significant simulation of multi-gigabit serial links. The models provide an interoperable solution that can run a 10 million bit simulation in 10 minutes or less on any commercial simulator.

The IBIS-AMI IP model kit from Snowbush supports the current IBIS-AMI specification and adds first-time support for simulation of back-channel communications, developed with Sigrity's Channel Designer tool.

“Simulation of back-channel behavior is a necessary step in the simulation process for advanced SerDes, and we wanted to collaborate with the leaders in that discipline,” stated Dr. Kumar Keshavan, Sigrity SI Architect. “Together with Snowbush, we have developed a solution that has the ability to mimic a hardware backchannel sequence and predict real-world behavior. We believe this model development and back-channel approach will become widely used in the design community, serving as a new benchmark for high-speed serial link offerings.”

Although currently not part of the IBIS-AMI standard, high-speed serial links, such as PCI Express 3.0 running at 8Gbps and 10GBase-KR running at 10Gbps, support back-channel techniques used to help optimize the transmission of data through the system while maintaining high signal quality. This typically involves the transmission of a training sequence from the transmitter (Tx) to the receiver (Rx). The Rx examines the waveforms of the received signal, and sends guidance back to the Tx regarding adjustments to its equalization (EQ) settings. The Tx makes the requested EQ modifications and re-transmits the training sequence. This process is repeated until the Rx is satisfied with the quality of the incoming signal, at which time the actual data transmission is executed with the optimized EQ settings.

### Availability

Gennum's Snowbush IP Group is shipping its first version of the PCI-Express 3.0 IBIS-AMI model to select customers now. The production version of the model will be available in the first quarter of 2011. Snowbush IP plans to develop similar models for its other PHY offerings above 8Gbps. Since IBIS-AMI is a standard that is supported by many different commercial simulators, the model is expected to run on a variety of different simulators (some simulators will need to be adapted to support back channel communication). For more information on pricing and licensing terms, please contact: [sales@snowbush.com](mailto:sales@snowbush.com).

### About the Gennum Snowbush IP Group

The Gennum Snowbush IP group offers a team of interconnect specialist to design and deliver silicon-proven, high-speed serial interface IP. Comprising one of the industry's most robust, widely-deployed, production-tested and customizable family of IP cores, the Snowbush IP portfolio satisfies the needs of today's most demanding high-speed serial communication protocols and applications. The offering includes complete, integrated, PHY and controller solutions for standards like USB, PCI Express® and Serial ATA (SATA), and single and multi-standard SerDes for applications with data rates from 1 Gb/s to over 10 Gb/s. Gennum's Snowbush IP group is committed to supporting customers with diverse foundry and process requirements, offering IP cores for TSMC, UMC, Common Platform, and Fujitsu processes. For more information visit [www.snowbush.com](http://www.snowbush.com)

Gennum Corporation (TSX: GND) designs innovative semiconductor solutions and intellectual property (IP) cores to serve the rising global demand for high-speed data transmission products in the broadcast, networking, storage and telecommunications markets. Gennum offers proven optical, analog and mixed-signal solutions with uncompromising signal integrity to support standards such as high-definition (HD) video, Fibre Channel, InfiniBand®, Ethernet, SONET and PCI Express®. The company is headquartered in Burlington, Canada, and has global design, research and development and sales offices in Canada, Mexico, Japan, Germany, United States, India and the United Kingdom. [www.gennum.com](http://www.gennum.com)

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