Phison Expands aiDAPTIV+ GPU Memory Extension Capabilities for Additional Platforms to Enable LLM Training and Improve Inferencing On-Premises

aiDAPTIV+ capabilities now support large parameter models on
AI laptop PC and edge computing devices

SAN JOSE - NVIDIA GTC – March 18, 2025 - Phison Electronics (8299TT), a leading innovator in NAND flash technologies today announced an array of expanded capabilities on aiDAPTIV+, the affordable AI training and inferencing solution for on-premises environments. aiDAPTIV+ will be integrated into a ML-series Maingear laptop, the first AI laptop PC capable of LLMOps, utilizing NVIDIA GPUs and available for concept demonstration and registration this week at NVIDIA GTC 2025. Customers will be able to fine-tune Large Language Models (LLMs) up to 8 billion parameters using their own data. Phison also expanded aiDAPTIV+ capabilities to run on edge computing devices powered by the NVIDIA Jetson platform, for enhanced generative AI inference at the edge and robotics deployments. With today's announcement, new and current aiDAPTIV+ users can look forward to the new aiDAPTIVLink 3.0 middleware, which will provide faster Time to First Token (TTFT) recall and extend the token length for greater context, improving inferencing performance and accuracy. These expansions will unlock access for users ranging from university students and AI industry professionals learning to train LLMs, or

researchers uncovering deeper insights within their own data using a PC, all the way to manufacturing engineers automating factory floor enhancements via edge devices.

With the proliferation of AI and edge processing use cases, demand has spiked for future AI developer talent. Developers require hands-on access to LLM training solutions to learn to build for tomorrow's applications, while decision-makers in highly regulated government, research, healthcare and industrial organizations seek on-premises, secure devices they can leverage to train on their own data. Beyond this, focus has also shifted toward improving LLM inferencing response and accuracy, with many organizations demanding best-in-market solutions at a predictable cost. aiDAPTIV+ is a budget-friendly, GPU memory extension capability allowing users to train an LLM with their data within an on-premises "closed-loop" secure network, while providing a simple user interface to interact with and ask questions about the data.

"aiDAPTIV+ is now equivalent to having an expert on your own data in your backpack at all times," said Michael Wu, GM and President at Phison US. "Not only do you get to train and do inferencing on your own fine-tuned or RAG-enabled LLMs, but then you reap the rewards of insights. That can lead to your next application, whether that's a groundbreaking pharmaceutical, a smarter financial forecasting model or a methodology to expedite factory output at the device level."

"Building on the momentum of last year's AI training workstation featuring aiDAPTIV+ at GTC, we've expanded our collaboration with Phison to take AI performance even further by introducing a proof-of-concept laptop that enables both powerful edge AI inference and on-device model training from anywhere," said Wallace Santos, CEO of Maingear. "This brings the capabilities of on-prem AI to a compact, mobile platform, giving businesses, educators, and students a cost-effective tool to develop AI models without the complexity of traditional data center infrastructure."

New and expanded capabilities with aiDAPTIV+ include:

- **ML-Series AI laptop PC from Maingear with aiDAPTIV+ Integration for LLMOps**
  This strategic partnership brings the industry's first consumer notebook PC that supports LLM training and enhanced inferencing up to 8B parameter models. The Maingear AI laptop PC concept will be demonstrated using aiDAPTIVCache SSDs, aiDAPTIVLink middleware and a Pro Suite GUI-based all-in-one feature set for LLMOps including ingest, fine-tuning, RAG, monitoring, validation and inference. Customers can now register with Maingear to be notified about ordering and delivery availability.
- **aiDAPTIVLink Middleware 3.0**
  The latest update provides enhanced inference by delivering faster recall response

TTFT and greater context by extending the token length for more accurate answers. This longer token length support allows the user to leverage more complex, detailed prompts to ask the LLM, available April 2025.

- **AI Inferencing for IoT with aiDAPTIV+**
  aiDAPTIV+ now supports edge computing and robotics use cases with Phison's validation of NVIDIA Jetson-based devices. aiDAPTIV+ strengthens inference and LoRA-based LLM training capabilities on these devices using the aiDAPTIVCache SSD, available in April 2025. This unlocks new processing capabilities in a variety of use cases including autonomous vehicles, healthcare diagnostics, industrial automation, retail analytics, environmental monitoring, telecommunications and smart surveillance and agriculture.
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To learn more, visit Phison at NVIDIA GTC, booth 2224, to see demonstrations for the Maingear AI laptop PC and aiDAPTIV+ AI inferencing capabilities for edge computing. For additional information on aiDAPTIV+, check out the website.

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PHISON Quick Facts

- Over 25 years experiences in NAND controller IC design and module integration.
- Over 4,000 employees globally, and more than 70% are engineers
- More than 2,000 NAND-related patents globally.
- Target long-term revenue of NT$100 billion through the 5+5 growth strategy
- The global market share of SSD controllers exceeds 20%
- The global market share of automotive-grade controllers exceeds 40%
- Phison, along with NAND makers such as KIOXIA, Micron, Western Digital, Samsung, SK Hynix, and others, are long-term partners.

- Over 70% of Phison’s revenue contribution comes from "non-consumer" NAND storage applications, including servers, automotive systems, embedded systems, industrial applications, gaming consoles, and generative AI, allowing Phison to maintain relatively stable revenue and profitability despite fluctuations in the NAND industry.
- Phison's mastery of the entire NAND industry ecosystem, including its relationships with upstream NAND makers, supply chain partners for NAND controllers and storage modules, and downstream NAND storage application customers, represents invaluable and irreplaceable value that Phison brings to its global clients and partners. It is also a key advantage that enables Phison to stand firm in the NAND industry.

About PHISON

Phison Electronics Corp. (TPEX:8299) is a global leader in NAND Flash controller IC and storage solutions. We provide a variety of services from controller design, system integration, IP licensing to total turnkey solutions, covering applications across SSD (PCIe/SATA/PATA), eMMC, UFS, SD and USB interfaces, reaching out to consumer, industrial and enterprise markets. As an active member of industry associations, Phison is on the Board of Directors for SDA, ONFI, UFSA and a contributor for JEDEC, PCI-SIG, MIPI, NVMe and IEEE-SA.

To know more about Phison, please visit Phison Website or Phison Q&A for details.

Forward-looking Statements

Information included in this press release that are not historical in nature are "forward-looking statements". Phison cautions readers that forward-looking statements are based on Phison’s reasonable knowledge and current expectations, and are subject to various risks and uncertainties. Actual results may differ materially from those contained in such forward-looking statements for a variety of reasons including without limitation, risks associated with demand and supply change, manufacturing and supply capacity, design-win, time to market, market competition, industrial cyclicality, customer’s financial condition, exchange rate fluctuation, legal actions, amendments of the laws and regulations, global economy change, natural disasters, and other unexpected events which may disrupt Phison’s business and operations. Accordingly,

readers should not place reliance on any forward-looking statements. Except as required by law, Phison undertakes no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.

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