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MaxLinear and Quanta Cloud Technology Unveil Accelerated Software Defined Storage Solution Optimized for AI and HPC Workloads at SC24

- *Solution combines MaxLinear Storage Acceleration SDK and Panther III Storage Accelerator SoC with QCT's Storage Platform for AI-scale storage*

CARLSBAD, Calif.--(BUSINESS WIRE)-- [MaxLinear, Inc.](https://www.maxlinear.com) (Nasdaq: MXL) MaxLinear, a leader in high-performance semiconductors, and [Quanta Cloud Technology](https://www.quantacloud.com) (QCT), a global infrastructure provider for data center solutions, today announced their new Software-Defined Storage (SDS) solution will be unveiled at the 2024 Supercomputing Conference (SC24) in Atlanta. This solution combines MaxLinear's ZFlush™, Panther III accelerated Zettabyte File System (ZFS) with advanced compression, and QCT's robust storage platform, creating a scalable, high-performance storage solution optimized for AI and HPC workloads.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20241113499773/en/>



MaxLinear and Quanta Cloud Technology Unveil Software Defined Storage Solution for AI and HPC Workloads at SC24 (Graphic: Business Wire)

machine learning, HPC, and data analytics, this solution enables rapid access to massive datasets while enhancing both performance and scalability.

The integration of MaxLinear's [Panther III](https://www.maxlinear.com/panther-iii) accelerated data services for Software-Defined Storage (SDS) with QCT's storage platform delivers exceptional storage efficiency, optimized capacity for large-scale distributed storage systems, and high file I/O performance. Designed to address the increasing demands of AI,

Key Highlights of the QCT and MaxLinear solution:

- **QCT's Robust and Advanced Storage Platform:** The flexible and scalable QuantaGrid D54Q-2U Server is optimized to meet the hot-tier storage demands of HPC and AI applications. This platform integrates MaxLinear's storage acceleration technology, delivering superior performance for parallel file systems. QCT is also collaborating with MaxLinear on the next-generation platform QuantaGrid D55Q-2U to provide breakthrough performance.
- **MaxLinear's Software Defined Storage:** A comprehensive software toolkit with flexible hardware offload that optimizes storage system performance, reducing latency and improving throughput by providing data services for block, object, and file storage.
- **Panther III Storage Accelerator SoC:** MaxLinear's next-generation accelerator designed to offload data services such as data compression, data deduplication hash generation, security, and data protection from general-purpose processors, enabling faster data movement and higher system efficiency in AI-driven workloads.
- **AI-scale Storage:** This solution is purpose-built for AI and machine learning applications that demand high throughput, low latency, and reliable data storage solutions at scale.

"The partnership between QCT and MaxLinear provides a comprehensive solution that enhances storage performance, scalability, and reliability," said Stephen Chang, AVP of Quanta Cloud Technology. "Together, these technologies enable enterprises and hyper-scalers to build storage systems with advanced features that offer greater storage capacity and efficient file I/O operations, significantly improving CPU utilization."

"With the rise of AI and other data-intensive applications, enterprises need storage solutions that can keep pace with ever-increasing data volumes," said Vikas Choudhary, Vice President of Ethernet & Storage Accelerators at MaxLinear. "By integrating our Panther III accelerated data services for ZFS with QCT's powerful multi-tier storage platform, we are enabling organizations to accelerate parallel file system performance in distributed storage. This joint solution will help organizations leverage distributed file systems more effectively to meet the growing demands of AI and big data applications."

The partnership between MaxLinear and QCT offers a comprehensive solution that provides enhanced storage performance, scalability, and reliability. Together, these technologies empower enterprises to build flexible, high-performance distributed compute and storage architectures optimized for AI-scale workloads and for the next generation of data-intensive applications.

About QCT's Robust and Advanced Storage Platform

QCT provides a scalable and reliable storage platform to meet the demands of compute-intensive HPC and AI workloads. The next-generation QuantaGrid D55Q-2U, equipped with the latest Intel Xeon Gen 6 processors, optimizes read/write throughput and IOPS. The platform supports up to 24 Gen5 NVMe SSDs or a combination of 12 3.5" HDDs and 12 Gen5 NVMe SSDs, depending on workload requirements. QCT's platform offers flexibility for users who need either low-latency all-flash NVMe solutions or scalable storage for data growth. With this robust and advanced storage platform, QCT empowers enterprises to achieve storage efficiency.

About MaxLinear's Accelerated-Software Defined Storage

MaxLinear's latest innovation, accelerated data services for Software Defined Storage, represents a significant leap forward in storage technology, offering breakthrough performance for data services used in hyperconverged infrastructure, hyperscale storage architecture, distributed file systems and databases. The data services are accelerated by MaxLinear's market leading [Panther III Storage Accelerator SoC](#).

Engineered to meet the escalating demands of data-intensive applications, the Panther III Storage Accelerator SoC delivers an impressive throughput of 200Gbps, with scalability up to an astonishing 3.2Tbps fueling data services for software defined storage. The Panther III Storage Accelerator incorporates cutting-edge technologies such as single-pass data reduction, security, data protection, deduplication (MaxHash™), and real-time validation (RTV), ensuring maximum efficiency and reliability in data processing. With a remarkable 12:1 data reduction ratio achieved through a combination of compression and deduplication techniques, the Panther III Storage Accelerator minimizes storage footprint and maximizes storage capacity utilization. Moreover, the inclusion of industry-standard encryption algorithms such as Suite B Secret & Top-Secret Decryption/Encryption ensures robust data protection against unauthorized access or breaches. With best-in-class data integrity and full real-time validation, the Panther III Storage Accelerator can deliver consistent and reliable storage performance, even under the most demanding workloads.

About MaxLinear, Inc.

MaxLinear, Inc. (Nasdaq: MXL) is a leading provider of radio frequency (RF), analog, digital, and mixed-signal integrated circuits for access and connectivity, wired and wireless infrastructure, and industrial and multimarket applications. MaxLinear is headquartered in Carlsbad, California. For more information, please visit <https://www.maxlinear.com/>.

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About Quanta Cloud Technology (QCT)

Quanta Cloud Technology (QCT) designs, manufactures, integrates, and services cutting-edge offerings for 5G Telco/Edge, AI/HPC, Cloud, and Enterprise infrastructure via its global network. Product lines include hyper-converged and software-defined data center solutions as well as servers, storage, and network switches from 1U to entire racks with a diverse ecosystem of hardware components and software partners to fit a variety of business verticals and workload parameters.

Cautionary Note About Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include, among others, statements by our

Vice President of Ethernet & Storage Accelerators and QCT's AVP, statements concerning or implying future financial performance, anticipated product performance, benefits and functionality of MaxLinear and QCT's SDS solution, benefits of MaxLinear's partnership with QCT and industry trends and growth opportunities affecting MaxLinear, including statements relating to the anticipated growth in the potential market opportunities for MaxLinear and QCT's SDS solution. These forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results to be materially different from any future results expressed or implied by the forward-looking statements and our future financial performance and operating results forecasts generally. Forward-looking statements are based on management's current, preliminary expectations and are subject to various risks and uncertainties. In particular, our future operating results are substantially dependent on our assumptions about market trends and conditions. Additional risks and uncertainties affecting our business, future operating results and financial condition include, without limitation; risks related to our partnerships, including our partnership with QCT; risks relating to our terminated merger with Silicon Motion and related arbitration and class action complaint and the risks related to potential payment of damages; the effect of intense and increasing competition; impacts of global economic conditions; the cyclical nature of the semiconductor industry; a significant variance in our operating results and impact on volatility in our stock price, and our ability to sustain our current level of revenue, which has declined, and/or manage future growth effectively, and the impact of excess inventory in the channel on our customers' expected demand for certain of our products and on our revenue; the geopolitical and economic tensions among the countries in which we conduct business; increased tariffs, export controls or imposition of other trade barriers; our ability to obtain or retain government authorization to export certain of our products or technology; risks related to the loss of, or a significant reduction in orders from major customers; costs of legal proceedings or potential violations of regulations; information technology failures; a decrease in the average selling prices of our products; failure to penetrate new applications and markets; development delays and consolidation trends in our industry; inability to make substantial research and development investments; delays or expenses caused by undetected defects or bugs in our products; substantial quarterly and annual fluctuations in our revenue and operating results; failure to timely develop and introduce new or enhanced products; order and shipment uncertainties; failure to accurately predict our future revenue and appropriately budget expenses; lengthy and expensive customer qualification processes; customer product plan cancellations; failure to maintain compliance with government regulations; failure to attract and retain qualified personnel; any adverse impact of rising interest rates on us, our customers, and our distributors and related demand; risks related to compliance with privacy, data protection and cybersecurity laws and regulations; risks related to conforming our products to industry standards; risks related to business acquisitions and investments; claims of intellectual property infringement; our ability to protect our intellectual property; risks related to security vulnerabilities of our products; use of open source software in our products; and failure to manage our relationships with, or negative impacts from, third parties. In addition to these risks and uncertainties, investors should review the risks and uncertainties contained in MaxLinear's filings with the United States Securities and Exchange Commission, including risks and uncertainties arising from other factors affecting the business, operating results, and financial condition of MaxLinear, including those set forth in MaxLinear's most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, as applicable. All forward-looking statements are qualified in their entirety by this cautionary statement. MaxLinear is providing this information as of the date of this release and does not undertake any obligation to

update any forward-looking statements contained in this release as a result of new information, future events, or otherwise.

Market Information

This press release contains statistical data, estimates and forecasts that are based on independent industry publications or other publicly available information. This information involves many assumptions and limitations, and you are cautioned not to give undue weight to such information. We have not independently verified the accuracy or completeness of the information contained in the industry publications and other publicly available information. Accordingly, we make no representations as to the accuracy or completeness of that information nor do we undertake to update such information after the date of this press release.

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