Alpha and Omega Semiconductor, Inc. 475 Oakmead Parkway
Sunnyvale, California 94085 USA
408.830.9742

FOR IMMEDIATE RELEASE

Media Contact: Mina Galvan
Tel: 408.830-9742
Email: mina.galvan@aosmd.com

Alpha and Omega Semiconductor Unveils Total Power Solution for Next-Gen Intel Panther Lake and Wildcat Lake Platforms

New Digital Multiphase Controllers and Smart Power Stages deliver industry-leading low quiescent power, extending mobile battery life by up to an hour

SUNNYVALE, Calif., May 18, 2026 – Alpha and Omega Semiconductor Limited (AOS) (Nasdaq: AOSL) a designer, developer, and global supplier of a broad range of discrete power devices, wide bandgap power devices, power management ICs, and modules, today announced a new family of digital multiphase controllers: the AOZ71049QI, AOZ71149QI and AOZ71146QI. Specifically engineered for Intel IMVP9.3 Vcore power delivery, these 4-rail controllers—when paired with AOS's benchmark DrMOS and Smart Power Stage (SPS) technology—provide a complete power solution for the latest Intel Panther Lake and Wildcat Lake mobile processor architectures.

The Hybrid Advantage: Digital Tuning, Analog Efficiency

The AOZ71049QI series utilizes the proprietary AOS Advanced Transient Modulation (A^2TM). This technology bridges the gap between digital flexibility and analog efficiency, combining variable-frequency hysteretic peak-current mode control with advanced phase-current sensing. This results in ultra-fast transient response and optimal current balance across both transient and DC loads. A key differentiator is the exceptionally low quiescent power consumption across all Intel IMVP 9.3 power states. By reducing power waste, the solution maximizes battery longevity in next-generation laptops and notebooks.

Simplified Design and Superior Thermals

To streamline the development cycle, configurations can be programmed directly into the controller's Multi-Time Programmable Memory (MTP) via a user-friendly GUI. This eliminates the need for manual solder rework during the tuning phase and reduces the overall bill of materials (BOM).

The solution reaches peak performance when paired with the AOZ52986QI Smart Power Stage (SPS). Featuring a compact 3x4 QFN package and a symmetrical pinout, the AOZ52986QI simplifies PCB layout while reducing parasitic inductance by 5%.

"The biggest hurdle for SoC power in mobile applications is balancing performance with power consumption," said Wayne Lee, Power IC Product Marketing Director at AOS. "Our AOZ71049 series provides a novel control scheme that meets Intel's most stringent requirements while delivering the lowest quiescent power in the industry. For the end user, this translates to 30 to 60 minutes of additional battery life compared to competing solutions."

-more-

ALPHA & OMEGA SEMICONDUCTOR

Technical Highlights

AOZ71049QI / AOZ71149QI / AOZ71146QI Multiphase Controllers

- **Flexible Configurations:** Up to 4+2+1+2 phase outputs to support Core (IA), Graphics (GT), Auxiliary (SA), and LPCORE domains.
- **Ultra-Low Quiescent Current:** Only 5.9mA at PS0 for 3+2+1+1 configurations.
- **Intelligent Management:** Autonomous phase shedding and auto-DCM to optimize power loss.
- **Universal Compatibility:** Supports multi-sourced industry-standard DrMOS or driver+MOSFET power stages.
- **Acoustic Noise Suppression:** Built-in features to ensure silent operation under varying loads.

AOZ52986QI Smart Power Stage (SPS)

- **Rugged Performance:** 2.7V to 22V supply range with 30V HS MOSFET for enhanced system reliability.
- **High Current Density:** Supports 45A continuous output (up to 80A peak).
- **Precision Monitoring:** Integrated current (3.5% accuracy) and temperature (2% accuracy) monitoring.
- **Space Efficient:** Optimized for switching frequencies up to 1.5MHz, enabling smaller external components.

Pricing and Availability

The AOZ71049QI, AOZ71146QI, and AOZ71149QI are available in production quantities with a lead-time of 12-16 weeks. The unit price in 1,000-piece quantities is $2.7 for the AOZ71049QI, $2.66 for the AOZ71146QI, and $2.75 for the AOZ71149QI. The AOZ52986QI is immediately available in production quantities, with a lead time of 16-18 weeks. The unit price in 1,000-piece quantities is $1.5.

About AOS

Alpha and Omega Semiconductor Limited, or AOS, is a designer, developer, and global supplier of a broad range of discrete power devices, wide bandgap power devices, power management ICs, and modules, including a wide portfolio of Power MOSFET, SiC, GaN, IGBT, IPM, TVS, HV Gate Drivers, Power IC, and Digital Power products. AOS has developed extensive intellectual property and technical knowledge that encompasses the latest advancements in the power semiconductor industry, which enables us to introduce innovative products to address the increasingly complex power requirements of advanced electronics. AOS differentiates itself by integrating its Discrete and IC semiconductor process technology, product design, and advanced packaging know-how to develop high-performance power management solutions. AOS' portfolio of products targets high-volume applications, including personal computers, graphics cards, data centers, AI servers, smartphones, consumer and industrial motor controls, TVs, lighting, automotive electronics, and power supply units for various equipment. For more information, please visit www.aosmd.com.

Forward-Looking Statements

This press release contains forward-looking statements that are based on current expectations, estimates, forecasts, and projections of future performance based on management's judgment, beliefs, current trends, and anticipated product performance. These forward-looking statements include without limitation, references to the efficiency and capability of new products and the potential to expand into new markets. Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from those contained in the forward-looking statements. These factors include, but are not limited to, the actual product performance in volume production, the quality and reliability of the product, our ability to achieve design wins, the general business and economic conditions, the state of the semiconductor industry, and other risks as described in the Company's annual report and other filings with the U.S. Securities and Exchange Commission. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, level of activity, performance, or achievements. You should not place undue reliance on these forward-looking statements. All information provided in this press release is as of today's date unless otherwise stated, and AOS undertakes no duty to update such information except as required under applicable law.

# # #