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FOR IMMEDIATE RELEASE

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Alpha and Omega Semiconductor Announces Application-Specific EZBuck™ Regulator Designed to Power Intel Arrow Lake Platform

With 45A Peak Current Capability, the AOZ23567QI Buck Converter Provides a Highly Integrated, Compact Solution for Intel Arrow Lake CPU VCCPRIM_VNNAON Rails

SUNNYVALE, Calif., Oct. 09, 2024 – Alpha and Omega Semiconductor Limited (AOS) (Nasdaq: AOSL), a designer, developer, and global supplier of a broad range of discrete power devices, wide band gap power devices, power management ICs, and modules, today announced its new application-specific EZBuck™ Regulator. The highly integrated, compact, and high-power-density AOZ23567QI Constant On-Time Buck Converter offers an upgraded solution that is designed to support VCCPRIM_VNNAON rails in the Intel Arrow Lake platform.

Intel's Arrow Lake S Line platform requires VCCPRIM_VNNAON rails with high currents. These high-current rails are typically supported by power implementations that require either a controller with external discrete power FETs or a converter with a large package. AOS' AOZ23567QI Constant On-Time Buck Converter delivers a highly integrated, high-power-density solution that includes all necessary power silicon in a thermally enhanced QFN 5 x 5 package. The device is capable of providing 22A continuous and 45A peak current capability.

Specifically designed to meet the specifications of the Intel Arrow Lake S Line platforms, the AOZ23567QI features a nominal fixed voltage of 0.77V, which is supplied in system states of S0 through S5. Intel also requires power regulation capable of remote sensing to maintain accurate tolerance and account for ground bounce. AOS' AOZ23567QI has passed all the validation requirements through stringent tests to ensure compliance with Intel specifications. In addition, Intel has approved the AOZ23567QI as a key component on their PCL (Platform Component List) for VCCPRIM_VNNAON power architectures.

Helping to increase reliability, the AOZ23567QI also features a PGOOD output, an integrated bootstrap diode, and an integrated soft start. Protection features include cycle-by-cycle current limit, Short-circuit Protection (SCP), Overvoltage Protection (OVP), and thermal shutdown. In addition, the EZBuck™ Regulator's LIM pin allows system designers to adjust current limit levels, enabling them to balance the power choke to the output, the output's current capability, and the component size.

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Key Features

- Supports Intel Arrow Lake platform remote sensing with a nominal 0.77V output voltage
- Wide input voltage range: 4.5V to 28V
- High Current Capability: 22A continuous and 45A Peak current capability to support Intel Iccmax events
- Low RDS(ON) internal NFETs: 5mOhm HS FET, 1.8mOhm LS FET
- Adjustable current limit setting
- Thermally-enhanced 5 x 5 QFN package

“The AOZ23567QI offers designers a feature-rich, high-current solution for VCCPRIM_VNNAON rails, providing optimal power support for the Intel Arrow Lake platforms. PCB real estate is at a premium in today’s ever-shrinking mobile laptop form factors. Utilizing AOS’ advanced EZBuck™ technology, the AOZ23567QI delivers a highly integrated yet very compact buck converter that efficiently and effectively solves the system designer’s continual space-constrained challenges,” said Wayne Lee, Sr. Marketing Manager, EZBuck™ Product Line at AOS.

Pricing and Availability

The AOZ23567QI is immediately available in production quantities with a lead time of 12 weeks. The unit price for 1,000-piece quantities is $2.70.

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 band gap power devices, power management ICs, and modules, including a wide portfolio of Power MOSFET, SiC, 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 portable computers, flat-panel TVs, LED lighting, smartphones, battery packs, consumer and industrial motor controls, automotive electronics, and power supplies for TVs, computers, servers, and telecommunications 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.

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