

FOR IMMEDIATE RELEASE

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Alpha and Omega Semiconductor Introduces Compact, 30V, 3A Buck Regulator Module

Wide Vin range, 3A Buck Module with integrated passives suitable for industrial applications

SUNNYVALE, Calif., June 28, 2022 – [Alpha and Omega Semiconductor Limited](#) (AOS) (Nasdaq: AOSL) a designer, developer, and global supplier of a broad range of power semiconductors, power ICs, and digital power products today announced the release of the [AOZ29303QI](#), a simple-to-use highly integrated buck module. The product is available in a 9mm x 6mm QFN 48-lead exposed pad package with a 3.7mm height. AOZ29303QI can deliver an output current of 3A with input voltage up to 30V and output voltage up to 5.5V. The new device offers a simple, compact solution suited to a wide variety of applications such as industrial, factory automation, networking, and general-purpose point of load.

The buck module comprises a controller IC, power MOSFET, rectifier diode, bootstrap capacitor, and an inductor. It can achieve up to 93% peak efficiency. When operating in low output current conditions, the device will run in a proprietary pulse energy mode (PEM) to achieve high efficiency by reducing switching loss. Under this mode, the regulators can still maintain 85% efficiency in 10mA light load operation making it an ideal choice for “always on” applications.

A suite of operation protections is available for this integrated module: cycle-by-cycle Over-Current Protection (OCP), output Over-Voltage Protection (OVP), output Short-Circuit Protection (SCP), and Over-Temperature Protection (OTP). External components required to realize a complete solution are minimal and offer the user flexibility to choose soft-start time, operating frequency, external compensation, and output voltage setting.

“AOS’ first module is based on our AOZ128x family of regulators that has been adopted in a range of industrial applications such as factory automation, automated meter reading for its ease of use and wide operating range,” said Peter Cheng, Power IC Senior Marketing Director at AOS. “By offering a module option, AOS’ intention is to offer system designers an even simpler implementation, speeding time to market and improving solution size.

Technical Highlights

- Operating Input Range: 4.5V to 30V
- Output Programmable Range: 0.8V to 5.5V
- 32V Absolute Maximum rating
- Maximum Output Current: 3A
- Protection Features: Over-Current Protection, Under-Voltage Lock-Out, Over-Voltage Protection, Output Short-Circuit Protection, and Over-Temperature Protection
- Programmable Soft-Start, Adjustable Switching Frequency
- Package: 9mm x 6mm QFN-48L

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Pricing and Availability

The AOZ29303QI is immediately available in production quantities with a lead time of 12 weeks. The unit price in 1,000-unit quantities is \$4.48.

About AOS

Alpha and Omega Semiconductor Limited, or [AOS](http://www.aosmd.com), is a designer, developer, and global supplier of a broad range of power semiconductors, including a wide portfolio of [Power MOSFET](#), [IGBT](#), [IPM](#), [TVS](#), [HVIC](#), [SiC](#), [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 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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