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FOR IMMEDIATE RELEASE

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Alpha and Omega Semiconductor Launches 3-Phase Driver IC, Increasing Battery Life of Cordless Power Tools and E-Mobility

AOZ32063MQV features high-side 100 percent duty cycle operation with integrated bootstrap diode, adjustable deadtime, and multiple protections for 3-phase BLDC motor drive designs

SUNNYVALE, Calif., Feb. 20, 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 the release of the AOZ32063MQV gate driver for BLDC motor applications. Available in a compact, 4mm x 4mm QFN-28L package, the highly integrated AOZ32063MQV is a 3-phase driver IC that offers superior driving ability, programmable deadtime, and sleep mode support. These capabilities deliver high motor operation efficiency and low standby power consumption that can help greatly increase the battery life of cordless power tools and e-mobility applications. The AOZ32063MQV is also an optimal driver IC solution for 3-phase Brushless DC (BLDC) motor drives.

The new AOZ32063MQV 3-phase driver IC features multiple advanced protection functions, including input under-voltage protection, short-circuit protection, over-current protection, and thermal shutdown. With a wide input voltage range from 5V to 60V and supporting 0.8A source and 1A sink driving capability, the AOZ32063MQV also has a wide operating (-40°C to +125°C) ambient temperature range and offers high-side 100 percent duty cycle operation support.

“Providing an economical and smaller-size PCB solution, the AOZ32063MQV, 3-phase driver IC, supports 100 percent duty operation and multiple protections in a compact 4 x 4 QFN package to satisfy customer < 60Vin BLDC motor control board design requirements. The AOZ32063MQV is capable of supporting the operation of two parallel MOSFETs delivering fast switching, efficiency, and advanced protection advantages that help to simplify and reduce BOM costs in today’s wide range of higher power BLDC motor application designs,” said Armin Hsu, Sr. Marketing Manager for motor driver products at AOS.

Technical Highlights

- Compact 4x4 QFN-28L package helps component placement and circuit layout
- Wide 5V to 60V input voltage range
- High side Gate Driver with integrated bootstrap diode and trickle-charge Circuit Supports 100% Duty Cycle Operation
- Adjustable dead-time control
- Sleep mode for power saving

- more -

- Multiple protection functions such as input under-voltage protection, short-circuit protection, over-current protection, and thermal shutdown
- Fault indicator output

Pricing and Availability

The AOZ32063MQV is immediately available in production quantities with a lead time of 24 weeks. The unit price in 1,000-piece quantities is $1.55 USD. AOS products are offered in packages with Pb-free plating and are compliant with RoHS standards.

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, 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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