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

FOR IMMEDIATE RELEASE

Media Contact: Mina Galvan
Tel: 408.789.3233
Email: mina.galvan@aosmd.com

Alpha and Omega Semiconductor Introduces Innovatively Designed, Space-Saving Half-Bridge MOSFET for DC-DC Applications

By reducing the footprint size to enable a more efficient high-power design, the AONG36322 XSPairFET™ provides a leading solution for space-constrained DC-DC Buck applications

SUNNYVALE, Calif., May 23, 2024 – 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 introduced its AONG36322 XSPairFET designed for space-constrained DC-DC applications. The new AONG36322 features two 30V MOSFETs in a half-bridge configuration where the high-side and the low-side MOSFETs are in an asymmetric DFN3.5x5 XSPairFET package. This innovative design allows the AONG36322 to replace an existing DFN5x6 asymmetric half-bridge MOSFET with an approximate 60 percent space-saving solution, thereby reducing the PCB footprint to further streamline the DC-DC architecture, resulting in a more efficient design. These benefits make the AONG36322 ideal for a new generation of smaller DC-DC buck converters in more compact applications such as point-of-load (POL) computing, USB hubs, and power banks.

The AONG36322 is an extension to the AOS XSPairFET lineup, designed with the latest bottom-source packaging technology. Its integrated high-side and low-side MOSFETs feature 4.5 mOhms and 1.3 mOhms maximum on-resistance, respectively, where the low-side MOSFET source is connected directly to the exposed pad on the PCB to enhance thermal dissipation. A definite advantage of the state-of-the-art AONG36322 package design is that it delivers lower parasitic inductance, significantly reducing switch node ringing.

“We designed the AONG36322 in the DFN3.5x5 package to help our customers meet their ongoing board space limitations. Our breakthrough AOS XSPairFET design also gives them the benefit of improved power density and efficiency to overcome the challenge developers face in meeting ever-increasing POL Buck application performance goals,” said Peter H. Wilson, Marketing Sr. Director of MOSFET product line at AOS.

Technical Highlights

Part Number	Package		V_{DS} (V)	V_{GS} (±V)	$R_{DS(ON)}$ (mΩ max) at V_{GS}=		Ciss (pF)	Coss (pF)	Crss (pF)	Qg (nC)
					10V	4.5V				
AONG36322	DFN 3.5x5	High Side (Q1)	30	20	4.5	8.0	1150	380	555	7.5
		Low Side (Q2)	30	12	1.3	1.75	4180	880	125	30

-more-

Pricing and Availability

The AONG36322 is immediately available in production quantities with a lead time of 16 weeks. The unit price in 1,000-piece quantities is $0.915.

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.

# # #