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Alpha and Omega Semiconductor to Showcase Latest Product Solutions at APEC 2015 in Charlotte, North Carolina

SUNNYVALE, Calif., March 12, 2015 – [Alpha and Omega Semiconductor Limited](#) (AOS) (Nasdaq: AOSL), a designer, developer and global supplier of a broad range of power semiconductors and power ICs, will be showcasing its newest product solutions at the APEC 2015 tradeshow which will be held at the Charlotte Convention Center in Charlotte, NC, March 16-18, 2015. The company will be hosting Booth #719.

AOS will feature a diverse portfolio of solutions which are optimized for higher efficiency, are more robust and most of them in a compact package size, all able to alleviate many of the design challenges that customers encounter.

Enhancing Mobile Battery Protection:

The [AOC2804](#) and [AOC2806](#) are the latest additions to the AlphaDFN™ package portfolio which takes chip scale packaging to the next level. These devices are specifically targeting one and two-cell portable battery pack applications such as those found in the latest smart phones, tablets, media players and wearable devices.

These devices are built upon AOS's proprietary power trench technology, which minimizes R_{SS} (source- to-source resistance) in a common-drain MOSFET configuration. For the same dimensions, these new devices can deliver 20% lower resistance – which makes them ideal for conserving battery life.

40V0.99mOhm MOSFET Ideal for Switching Power Conversion:

The [AON6590](#) is designed to address a wide range of applications including primary-side and secondary-side switching in telecom and industrial DC/DC converters, secondary-side synchronous rectification in DC/DC and AC/DC converters, as well as POL modules for telecom systems.

Compared to previous generations, this new product improves on-resistance by 30% which reduces conduction losses and allows lower case temperatures during heavy load operation. It also offers low output capacitance, reducing turn-off energy loss, thus enabling higher efficiencies in hard-switching applications. In addition to the performance benefits, this device has been designed with a robust UIS capability to handle extreme conditions such as output short-circuits or start-up phases.

1350V IGBT Optimal for Induction Heating Applications:

The [AOK20B135D1](#) has been optimized to deliver high performance in soft-switching home appliance applications such as induction cooking, rice cookers and inverter-based microwave ovens.

Built upon the latest patent pending AlphaIGBT technology platform, it features industry-leading low $V_{CE(SAT)}$ and fast turn-off that reduces the power losses incurred during conduction and switching. The 1350V minimum BV_{CES} rating allows for a larger safety margin to prevent avalanche destruction from voltage transients. Furthermore, EMI is reduced as a result of very smooth turn-off current waveforms.

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EZBuck™ Regulator in a Thermally Enhanced Package:

The [AOZ3103](#) is a high efficiency, simple-to-use synchronous buck regulator, with an operating input voltage range from 4.5V to 18V and the ability to supply 3A of continuous current. The device offers a low on-resistance power stage in a thermally enhanced 3mm x 3mm DFN package, allowing cooler power conversion for a variety of consumer electronics applications such as LCD TVs, set-top-boxes, as well as DVD players and recorders.

Compared to the leading competitor, the AOZ3103's input voltage rating is 2V higher and its feedback tolerance is 0.5% tighter, which allows for greater safety design margin as well as a higher degree of output voltage accuracy. The device also features a Power-On Reset (POR), input under-voltage lockout and output over-voltage protection.

EZPower™ Smart Load Switches:

The [AOZ1363](#) is a high current smart load switch with rapid turn-off fault protection and current monitoring. The device has an operating input voltage range from 5V to 16V and is capable of supplying up to 6A of continuous current. A low on-resistance of 23mOhm in a thermally enhanced 3mm x 3mm DFN package makes this device optimal for space-constrained applications that require circuit protection such as the latest notebook PCs, hot swap supplies and micro servers.

It integrates several smart functions to safely and effectively manage and monitor loads. The device features an internal current limiting circuit, which protects the system from sourcing excessive load currents, in conjunction with a thermal protection function that limits excessive power dissipation. Externally programmable soft-start circuitry controls inrush current from highly capacitive loads during hot-plug events. The device can communicate load information in real time through the current monitoring pin (ISEN) with an accuracy window of 10% at a specified load current of 3A.

The [AOZ1334](#) is a single-channel smart load switch, which features an ultra-low on-resistance of 3.9mOhm in a thermally enhanced 3mm x 3mm DFN package. It offers high efficiency in a compact size, and is an ideal solution for a variety of space-constrained applications such as tablets, notebook computers, set-top-boxes, solid-state drives, networking equipment, LCD TVs, and other consumer electronics applications.

It includes an n-channel MOSFET that can provide 10A of current with a 3.2V to 5.5V bias supply, and operates down to 0.8V. Additionally, it has an integrated 220Ohm load discharge resistor to allow quick discharging of capacitive output loads.

The [AOZ1331](#) is a dual-channel smart load switch, which delivers up to 6A of continuous current per channel. The dual device's low on-resistance of 20mOhm in a thermally enhanced 3mm x 2mm DFN package give it an ideal $R_{DS(ON)}$ -to-footprint ratio to enhance performance in space constrained applications. This device is an ideal solution for the latest notebook PCs, Ultrabooks, tablets, set-top-boxes, solid-state drives, networking equipment, LCD TVs, and other consumer electronics applications.

It has two n-channel MOSFETs with an input operating voltage range of 0.8V to 5.5V, and an input bias voltage range of 2.5V to 5V. Each load switch operation is independently controlled via a low-voltage logic control signal. The device can switch 6A per channel of continuous current with a turn-on slew rate that can be programmed by an optional external capacitor. Additionally, it has an integrated 220Ohm load resistor into each channel to allow for quick discharging of capacitive output loads.

For more information on APEC please visit: www.apec-conf.org

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](#) and [Power IC](#) 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's portfolio of products targets high-volume applications, including portable computers, flat panel TVs, LED lighting, smart phones, battery packs, consumer and industrial motor controls and power supplies for TVs, computers, servers and telecommunications equipment. For more information, please visit www.aosmd.com.

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