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Alpha and Omega Semiconductor Releases 18V Input 1.25MHz EZBuck™ Regulators

*Fixed-frequency Synchronous Buck Regulators with 30ns minimum On-Time
suitable for noise-sensitive applications*

SUNNYVALE, Calif., June. 16, 2020 – [Alpha and Omega Semiconductor Limited](#) (AOS) (Nasdaq: AOSL), a designer, developer and global supplier of a broad range of power semiconductors and power ICs, today introduced AOZ676xDI series of high switching frequency and simple-to-use synchronous buck regulators. [AOZ6762DI](#) and [AOZ6763DI](#) are capable of delivering 2A and 3A, respectively, and up to 15W output power. The new devices offer a low on-resistance power stage and are packaged in a 3mm x 3mm DFN 8-lead package with an exposed thermal pad, allowing cooler power conversion for a variety of consumer and networking equipment such as wireless AP/routers, set-top boxes, cable modems, audio equipment, and LCD TVs.

The power stage comprised of two power MOSFETs optimized for efficient synchronous switching to minimize both switching and conduction losses. The new devices can achieve > 90% efficiency at full load operation. When operating in low output current conditions, the devices run in a proprietary pulse energy mode (PEM) to achieve high efficiency by reducing switching loss. Under this mode, the regulators can still maintain up to 86% efficiency at 10mA load operation. This feature enables system designers to achieve the low standby power required to meet the “One Watt Initiative.”

The high switching frequency of AOZ6762 and AOZ6763 provides some key benefits in a buck regulator

1. Enables the use of smaller external components, such as inductors and capacitors, reducing PCB footprint and component costs.
2. Better transient response while maintaining fixed frequency switching.
3. Reduce the side-band interference in wireless applications.

High switching frequency combined with low minimum controllable on-time makes AOZ6763 and AOZ6762 unique, enabling low output voltages from a 12V bus making the device a suitable power converter for next-generation SoCs, FPGAs, and ASICs using deep sub-micron processes. External compensation makes it easy for the user to trade off transient response and output ripple requirements with various output filters.

“Features such as high fixed-frequency operation and low minimum controllable on-time of 30ns make AOZ6762DI and AOZ6763DI uniquely suited to noise-sensitive applications such as wireless routers and audio applications,” said Kenny Hu, Power IC Marketing Manager at AOS. “The thermally enhanced package combined with high efficiency across the whole load range thanks to the pulse energy, light load mode makes this an extremely versatile device for a wide range of applications.”

Technical Highlights

Features	AOZ6762DI	AOZ6763DI
Maximum Current	2A	3A
Input Range	4.5V to 18V	
Light Load Efficiency at 10mA	86%	
Minimum On-Time	30ns	
Minimum Output Voltage	0.6V	
Package	Thermal Enhanced DFN3x3-8L	
Thermal Rise at 15W Output	57°C	

Pricing and Availability

The AOZ6762DI and the AOZ6763DI are immediately available in production quantities with a lead-time of 12 weeks. The unit price for 1,000 pieces is \$0.42 for the AOZ6762DI and \$0.52 for the AOZ6763DI.

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/GaN](#), [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's portfolio of products targets high-volume applications, including portable computers, flat-panel TVs, LED lighting, smartphones, 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.

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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