

18V boost regulator from ams supports wide range of display sizes in mobile end products

System developers can easily re-use their power circuit design across multiple product variants with different display sizes

Unterpremstaetten, Austria (3 April, 2013), ams AG (SIX: AMS), a leading worldwide designer and manufacturer of high performance analog ICs for consumer & communications, industrial & medical and automotive applications, today released the AS1345, a miniature step-up DC-DC regulator that maintains high efficiency in power supplies designed for small, medium-sized or large displays in mobile products.

This means that manufacturers of multiple portable end products with different display sizes can re-use their display power circuit design, saving development time and reducing board assembly and tooling costs.

By providing four variants with different peak coil current limits of 100mA, 200mA, 350mA and 500mA, ams has optimized the efficiency of the AS1345 across a wide range of loads. The AS1345's output voltage can also be selected, with fixed-output versions available at 12V, 15V and 17V, and adjustable versions enabling the designer to configure an output between 5V and 18V. All variants share the same footprint and pin-out.

System designers can therefore maintain a common power supply design across a range of displays by selecting the AS1345 variant with the most appropriate output voltage and peak coil current, and changing inductor and capacitor values appropriately. The AS1345 supports OLED displays ranging in size from 130mm² to 3700mm².

With a footprint of just 2mm x 2mm, the AS1345 is ideal for display power circuits of end products, such as mobile phones and e-readers, that require long battery run-time and that impose severe board space constraints. Its high-frequency hysteretic control loop operates with very small external components. It also includes integrated MOSFETs for power and isolation switching.

This new step-up converter operates from an input voltage range of 2.9V to 5.0V, and so is suitable for use with a single lithium-ion battery, as well as with other battery types and configurations. It is capable of supplying a 20mA output current at 18V from a single li-ion battery.

Supporting long battery run-time between charges, the device features a low quiescent current of 25µA (typical). It may be disconnected from the battery in shut-down mode.

Don Travers, Marketing Manager (Power) of ams, said: 'Any step-up regulator for battery-powered displays has to help the designer meet the main requirements of minimizing both power losses and board footprint. What differentiates the AS1345 is that it also helps save design time because IP and board layouts can easily be re-used across product variants with different display sizes.'

Price & Availability

The AS1345 18V step-up regulator is available for sampling now. It is priced at \$0.49 for 1,000 pieces.

Technical Support

An evaluation kit for the DC-DC Step-up Converter AS1345 is available online from ams. For further information on the AS1345 or to request samples, please visit www.ams.com/DC-DC-Converter/AS1345.

About ams

ams develops and manufactures high performance analog semiconductors that solve its customers' most challenging problems with innovative solutions. ams' products are aimed at applications which require extreme precision, accuracy, dynamic range, sensitivity, and ultra-low power consumption. ams' product range includes sensors, sensor interfaces, power management ICs and wireless ICs for customers in the consumer, industrial, medical, mobile communications and automotive markets.

With headquarters in Austria, ams employs over 1,300 people globally and serves more than 7,800 customers worldwide. ams is the new name of austriamicrosystems, following the 2011 acquisition of optical sensor company TAOS Inc. ams is listed on the SIX Swiss stock exchange (ticker symbol: AMS). More information about ams can be found at www.ams.com.

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