

# **NEWS RELEASE**

PR1014E

# ALPS Green Devices Develops and Commences Mass Production of "GLCLK Series" and "GLCLM Series" Liqualloy™ Chip Type Power Inductors

Contributing to operation of mobile device displays over longer periods

Munich, Germany, October 13, 2014 – ALPS Green Devices has developed the "GLCLK Series" and "GLCLM Series" Liqualloy™ Power Inductors, ideal for power supply circuits of displays for smartphones and other compact mobile devices, such as tablets and digital cameras. Mass production is already underway. The products will be exhibited at CEATEC JAPAN 2014, to be held from October 7 at Makuhari Messe, Chiba.

Compact mobile devices are expected to consume more and more electricity as their displays become larger and their CPUs faster. This is creating demand for electronic components that are more energy-efficient, to support operation over long periods, and which fit into limited space. In particular, inductors and other electronic components making up the power supply circuits for devices need to have low power loss and accommodate size and thickness reductions.

Responding to these needs, ALPS Green Devices has developed and commenced mass production of the GLCLK Series and GLCLM Series Liqualloy<sup>TM</sup> Power Inductors using Liqualloy<sup>TM<sup>\*</sup></sup>, which demonstrates excellent characteristics in minimizing losses associated with power conversion, as the core material.

The GLCLK Series and GLCLM Series were created using original powder compacting and molding technology and after altering the composition of the Liqualloy<sup>™</sup> material used for earlier ALPS Green Devices products. This enabled around three times better





frequency characteristics than earlier products and supports the use of switched mode power supplies with higher frequencies. The products also achieve a core loss reduction of around 70% compared to earlier products (when measured at 3MHz) and therefore perform highly efficiently in power supply circuits with high ripple current ratios, particularly those used in display power supplies.

As chip type components, electrodes of the GLCLK Series and GLCLM Series are located on the base, which is useful for achieving low height. Because there are no electrodes located on the top of the power inductors, noise suppression components or other parts can be installed in close proximity to them. This improves flexibility in end product design.

By adding the GLCLK Series and GLCLM Series to its power inductor lineup alongside the GLMC, GLMD and GLMH Series, ALPS Green Devices is looking to meet the diverse needs of the market.

\* Liqualloy<sup>™</sup>, the inductors' core material, is an original magnetic amorphous alloy developed by ALPS. It is drawing interest as a new magnetic material to use in place of the most common core material, ferrite, and the second most common, iron powder.

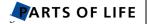
## Features

Contributes to operation of compact mobile devices over longer periods and further downsizing

- 1. Low loss during power conversion, realized using Liqualloy<sup>™</sup>, a new magnetic material developed by ALPS
- 2. Suitable for circuits with high switching frequencies and high ripple current ratios, thereby contributing to smaller, more efficient power supplies
- 3. Locating the electrodes on the base helps improve end product design flexibility

## **Principal Applications**

DC-DC converter circuits for compact mobile devices such as smartphones, tablets and solid-state drives (SSD)





# Specifications Model

Dimensions (W x D x H) Inductance DC resistance **GLCLK Series** 2.5mm x 2.0mm x 1.0mm 0.47 - 4.7μH 31 - 230 mΩ

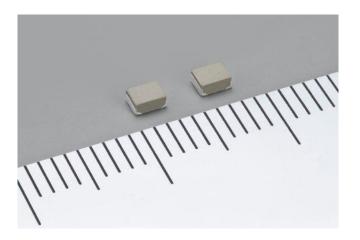
## Model

Dimensions (W x D x H) Inductance DC resistance

## **GLCLM Series**

2.5mm x 2.0mm x 1.2mm 0.47 - 4.7μH 26 - 185 mΩ

For more information on the new the product please visit <a href="http://www.alps.com/products/e/npv\_product/141002\_GLCL/GLCL\_E.PDF">http://www.alps.com/products/e/npv\_product/141002\_GLCL/GLCL\_E.PDF</a>



### ALPS Electric Co., Ltd.

ALPS Electric (Tokyo: 6770) is a leading global manufacturer of high-quality electronic components for mobile devices, home electronics, vehicles and industrial equipment. With the philosophy of "Perfecting the Art of Electronics" ALPS Electric supplies over 40,000 different components to about 2,000 companies all over the world. For more information, visit <u>www.ALPS.com</u>.

#### About ALPS Green Devices Co., Ltd.

ALPS Green Devices was formed as a business alliance between ALPS Electric and the Innovation Network Corporation of Japan to develop and manufacture compact, highly efficient power conversion and power control devices that enable the creation of a low carbon society. For more information, visit <u>www.ALPSgd.com/eng/</u>





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