NEWS RELEASE

PR 0704-035E

ALPS develops SCDC Series Connectors for RS-MMC™

Achieving the Industry's Smallest Volume at 2.31ml
Using ALPS' High-Frequency Circuit Technology

Duesseldorf, Germany, July 20, 2004 – ALPS Electric has announced the development of the SCDC Series of connectors for the RS-MMC™ (Reduced Size Multimedia Card), a promising storage medium for mobile devices, which are growing smaller in size at a rapid pace.

Mobile telephones, digital cameras, and other mobile devices continue to grow smaller and slimmer, and smaller storage media for these devices are also being developed. The Multimedia Card Association (MMCA), which standardized the Multimedia Card (MMC™), announced the standards for the RS-MMC™ flash memory card in November 2002. The external dimensions are 24.0mm × 18.0mm × 1.4mm, with a weight of 0.8 grams. Although half the size of the MMC™, the RS-MMC™ has a maximum capacity of 128Mega Byte and is most popular in Europe. The SCDC Series of connectors is designed for use with the RS-MMC™.

ALPS employed its expertise in high-precision micro-pressing technology, accumulated in the design and manufacturing of its earlier storage media connectors, as well as the Company's original mechanical design technologies, to develop a connector that simultaneously offers one of the smallest mounting areas and one of the longest media ejection distances (4.0mm) in the industry. Three models are available: standard mount with media detection switch, standard mount without media detection switch, and reverse mount with media detection switch. The long media ejection distance makes it easy for the user to handle the storage media, while the small mounting area and different models give set makers increased freedom in product design.

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Using high-precision mold-machining technology, ALPS has designed the unit with two storage media contacts, which reduces the chances that the storage media will lose contact with the connector if the product is dropped or suffers other impact. This endows the connector with the impact resistance needed in mobile devices.

The incorporation of a media detection switch, which detects the presence of storage media, ensures the proper operation of storage media and contributes to the protection of the data on the storage media. The use of a sliding self-cleaning mechanism makes for high reliability.

Media insertion and ejection is the push-push type. Media are inserted by pushing them into the slot, and ejected by pushing once again.

Features
One of the industry's smallest mounting areas and longest media ejection distances (4.0mm)

- This RS-MMC™ connector offers one of the smallest mounting areas and one of the longest media ejection distances (4.0mm) in the industry.
- The availability of three models (standard mount with media detection switch, standard mount without media detection switch, and reverse mount with media detection switch) contributes to greater freedom in product design.
- High impact resistance is achieved through the use of high-precision mold-machining technology to make twin storage media contact terminals.
- Reflow solder is used.

Principal Applications
Mobile telephones, digital still cameras, digital video cameras, PDAs, and other mobile devices.

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Specifications

Product name	SCDC1A	SCDC1B	SCDC2A
Dimensions (W x D x H)	28.9mm x 18.1mm x 2.15mm	29.2mm x 17.35mm x 2.15mm	28.9mm x 18.4mm x 2.4mm
Media detection switch	Yes	No	Yes
Mounting system	Standard mount		Reverse mount
Applicable media	RS-MMC™		
Mounting method	Surface mounting type		
Media ejection method	Push-push type		
Operating temperature range	-25°C - +60°C		
Voltage resistance	500V AC/1 min.		
Insulation resistance (initial)	Over 1,000mΩ		
Contact resistance (initial)	Connector contact point: Less than 100mΩ,detection switch contact point: Less than 500mΩ		
Lifespan	10,000 cycles		

Note: MMC is a registered trademark of Infineon Technology AG, and is licensed to the MMCA.

This News Release and a Press Photo are electronically available under http://alps.presseagentur.com

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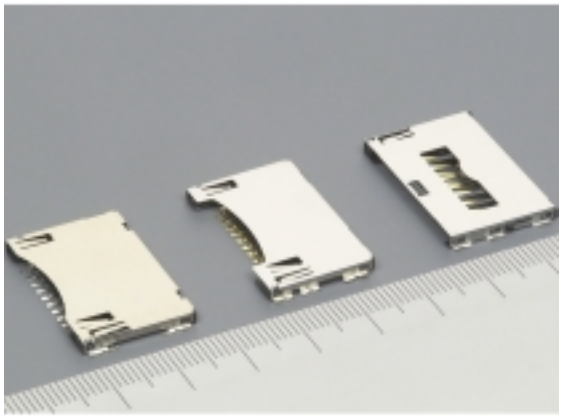

ALPS Electric Co., Ltd.
Since its establishment in 1948 ALPS has grown as a comprehensive manufacturer of electronic components. At present ALPS is creating innovative high-value-added products in its main business segments – Components, Magnetic Devices, Communications, Peripheral Products, and Automotive Electronics – which are contributing to the advance of a digital society. ALPS is a global company that carries out its operations with 23 production bases in 8 countries as well as 60 sales bases in 13 countries. Consolidated net sales in the year ended March 31, 2003 amounted to YEN 602 billion.

ALPS Electric Europa GmbH, a subsidiary of ALPS Electric Co., Ltd., was established in 1979. Since 1989 the European Head Office is located in Düsseldorf. A team of specialists is working here in Sales, Marketing, and Product Engineering. From Düsseldorf the activities of our branch offices in Munich, Paris, Milton Keynes and the European distribution are co-ordinated. ALPS Nordic AB, a 100 percent subsidiary of ALPS Electric Europa GmbH, located in Sweden, is servicing the Scandinavian market.

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