

**NEWS RELEASE**

PR1409E

**ALPS Develops FPDJ9 Series Optical Size 1/10 Inch VGA<sup>\*1</sup> Wide-Angle Camera Module***Achieving the Industry's First 90° Field Angle*

Duesseldorf, Germany, July 27, 2009 – ALPS ELECTRIC EUROPE GmbH has completed the development of the FPDJ9 series, which has achieved the industry's first wide-angle (90° field angle) optical size<sup>\*2</sup> 1/10 inch VGA camera module for use in mobile phones and handheld game machines. Sample shipments of the module will commence from August 2009.

The use of mobile phone-mounted cameras to take photos and videos of scenery, people and other objects as mementos has become popular in recent years. Moreover, such photography extends beyond simple scenery shots; an increasing number of people use their mobile phone sub cameras to take self-portraits, sometimes including others in such photographs. However, because of the 60° field angle of most conventional cameras, the number of people and amount of scenery that can fit within such a shot is limited, leading to instances in which the picture taker's image does not fit well into the photograph or the faces of companions are cut off, even if the picture taker extends his/her arm and hand to the very limit. This has spurred demand for mobile phone cameras capable of taking photographs with an even wider field of view. Despite this, wide-angle cameras have until now required LSI and other technologies to correct wide-angle lens distortion and have thus been limited to special applications, such as vehicle-mounted and security cameras.

The FPDJ9 series has the industry's thinnest<sup>\*3</sup> main component size (width: 5.0mm, depth: 5.0mm, height: 2.74mm), while possessing the industry's first 1/10 inch VGA camera module capable of taking wide-angle photographs (90° field angle).

Possessing wide-angle (90° field angle) photographic capabilities, the FPDJ9 series simultaneously achieves a thin (2.74mm) and high-quality (F2.8) design owing to the use of an ALPS ELECTRIC lens based on the Company's proprietary lens simulation and optical design as well as a unique barrel-lens structure that attaches the lens directly to the housing. Consequently, this compact and thin wide-angle camera can be easily mounted on mobile phones due to its ability to produce images that need no correction.

Owing to the realization of a compact, thin and wide-angle camera module, the FPDJ9 series can also be installed in laptop computers and other devices, making it possible to use this product in conference network cameras and cameras that photograph documents. Not merely for photography, this series is expected to find applications in image recognition sensors that extend over a broad range.

## Features

Development of the FPDJ9 Series Optical Size 1/10 Inch VGA Wide-Angle Camera Module, the First in the Industry Capable of Taking Wide-Angle Photographs (90° Field Angle)

1. Attainment of 90° wide-angle photographs that do not require image correction.
2. At 2.74mm, the industry's thinnest camera module with a main component that is capable of taking wide-angle photographs.

## Principal Applications

Devices including mobile phones, laptop computers, game machines, image recognition sensors for various equipment

\*1: VGA: Abbreviation for Video Graphics Array, with 640 x 480 dot display resolution.

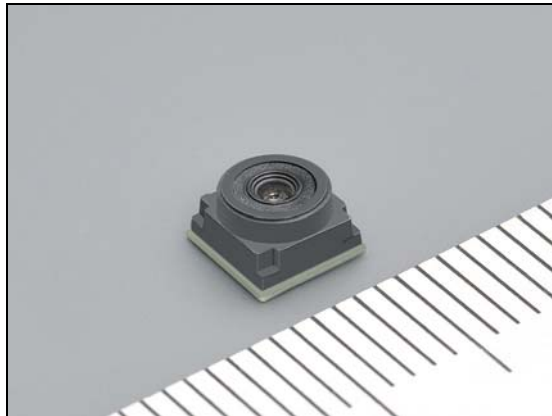
\*2: Optical size: A display method customarily used to set the diagonal length of the image pickup tube used in the video camera with that of the camera module's image pickup device. 1/10opt inch is equivalent to approximately 1.8mm.

\*3: Based on research conducted by Alps Electric as of July 2009.

## Specifications

Product name	FPDJ9 Series		
Display resolution	1/10VGA (640 x 480 dots)		
Dimensions (W x D x H)	5.0mm x 5.0mm x 2.74mm		
Lens structure	2-lenses		
F value	2.8		
Field angle	Horizontal	78.5°	
	Vertical	63.7°	
	Diagonal	90.0°	
Image distortion	Less than 1%		
Frame rate	30fps maximum		
Connection method	Flexible PCB/Socket		
Interface	Parallel		

For more information on the new the product please visit  
[http://www.alps.com/products/e/npv\\_product/090723\\_FPDJ9/FPDJ9\\_E.PDF](http://www.alps.com/products/e/npv_product/090723_FPDJ9/FPDJ9_E.PDF)



**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 9 countries as well as 57 sales bases in 14 countries. Consolidated net sales in the year ended March 31, 2009 amounted to YEN 539 billion.

**ALPS ELECTRIC EUROPE GmbH**, a subsidiary of ALPS Electric Co., Ltd., was established in 1979. Since 1989 the European Head Office has been located in Düsseldorf, where a team of specialists works in Sales, Marketing, and Product Engineering. The activities of our branch offices in Munich, Paris and Milton Keynes, Stockholm, Gothenburg, our sales office in Milan and our European distribution work are coordinated from Düsseldorf.

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