

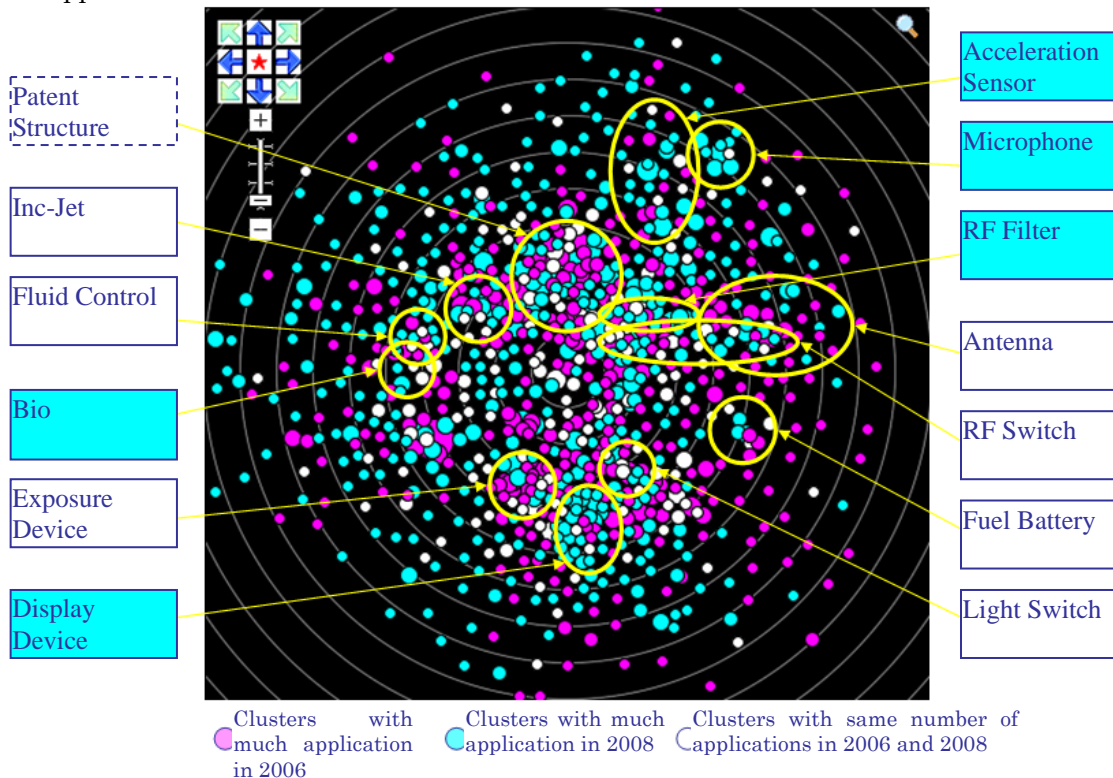
Overview MEMS market which grows rapidly  
-Development Trend Analysis by XLUS®-

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A new application has broadened in 2010 from the sensor MEMS which was conventional major market in the MEMS market currently expected to exceed 1 trillion yen to an optical switch, RF device and fluid control, the display, and also biotechnology and the chemistry field. Here, I will look at the application field of the latest MEMS device, and the main makers of a there from the patent application in 2006 to 2008.



The figure is what was created by patent analysis tool “XLUS” which SO-TI offers. In this chart, similar patent applications are cluster-ized and expressed with one circle. Large cluster includes many patent applications. Moreover, as for the cluster, what has near contents is arranged mutually in the neighborhood. Therefore, a near cluster forms one group area technically, and each accommodates to the applicable field of a MEMS device.

From the chart, the field in which development is active these days can be grasped. If year 2006 and 2008 are compared, the new applicable field which R&D has been activating particularly recently can be read. The field (acceleration sensors, microphone, radio frequency filters, displays

and projector, bio) specifically displayed blue by a diagram is the application expanded recently.

Moreover, it is easy to list up the company which applied many patents in each realm and see their strategy. For example, in the RF device, cell phone makers are listed as expected, and competition is assuming the aspect of the Age of Civil Wars. On the other hand, Seiko Epson is overwhelming others by R&D in case of the projectors business. In the microphone products, YAMAHA rivals Panasonic and Star Micronics Co., Ltd. of specialized manufacturers continue. The businesses IC steppers are unexpected, and while application of ASML of the Netherlands, NIKON, and FujiFilm is active, there is little application of Canon. Is this connected with the share fall of Canon in a photolithography machine market? Although the acceleration sensors products is interesting and there is of course much application of an automobile related maker, most frequent application are Nintendo and the size of the market of Wii is realized anew.

An application can exclaim MEMS as range of key components, and it is thought that the development strategy also influences the future performance of all companies not a little.

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