

Press release IDW 2012 December, 4th – 7th 2012, Kyoto/Japan

Interactive OLED data eyeglasses with full-color microdisplay

Fraunhofer COMEDD presents the interactive OLED data eyeglasses for the first time in Asia

Dresden, November 26th, 2012: The world of the "augmented reality" becomes more and more common. This is even widened by the use of tiny OLED-on-silicon microchips, which are display and camera at the same time. Fraunhofer COMEDD developed these microchips successfully, which can be integrated now into data eyeglasses with an appropriate optical construction. Thus it is possible that information are displayed, to observe one's surroundings and to have one's hands free for further activities since the information can be controlled by eye-tracking. A computer mouse is no longer necessary. The use of these eyeglasses enables for example craftsmen to get their construction plans displayed without interrupting their work; paramedics can take care of their patients and monitor the most important body functions at the same time or hobby gardener can gain the best cultivation tips directly from the internet during gardening. A wonderful world!

The scientists of Fraunhofer COMEDD, which were able to integrate OLED microdisplay and image sensor elements in a single microchip for the first time ever, are pleased about the enormous international response and the orders resulting from it. The possible fields of application are numerous and versatile. The scientists are able to develop the optimal display for each request.

Dr. Rigo Herold, project engineer and developer of the interactive OLED data eyeglasses, is excited: "In order to get acquainted with our technology, we offer a design and evaluation kit of the data eyeglasses, which provides the opportunity to program and test first examples of use. At the moment the eyeglasses can be offered with a bright red shining OLED display. We are currently working on the possibility to provide the information in full-color so that people can experience whole film sequences."

In December 2012 the data eyeglasses will be presented at the IDW 2012 (International Display Workshop 2012 in Japan) in Asia, which will probably attract a large audience again.

About Fraunhofer COMEDD:

Fraunhofer COMEDD was founded as an independent research institution of the Fraunhofer-Gesellschaft in order to transfer the results of research and development in the field of organic materials and systems to production. The institution combines research and development works for the production, integration and technology of organic electronic devices. The focus of Fraunhofer COMEDD lies in customer- and application orientated research, development and pilot fabrication of novel module concepts and fabrication methods for these organic materials. Fraunhofer COMEDD is an European-wide leading production-related research and development center for organic semiconductors focusing on organic light-emitting diodes and vacuum technology.

The Fraunhofer COMEDD clean room consists of the following equipment:

- a pilot line for the fabrication of OLED on 370 x 470 mm² substrates,
- two pilot lines for 200 mm wafer for the OLED integration on silicon substrates as well as
- a research line for the roll-to-roll fabrication on flexible substrates.

Fraunhofer COMEDD offers a wide range of research, development and pilot production possibilities, especially for OLED lighting, organic solar cells and OLED microdisplays.

More information are available:

Fraunhofer COMEDD Tel.: +49 (0) 351/8823-238 Ines Schedwill Fax: +49 (0) 351/8823-394

Head of Marketing e-mail: lnes.Schedwill@comedd.fraunhofer.de

Maria-Reiche-Str. 2 Internet: <u>www.comedd.fraunhofer.de</u>

01109 Dresden - Germany



Bi-directional OLED microdisplay