

## Press Release - for immediate release

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### **New CMOS-like InGaAs Image Sensors from Sony makes SWIR technology marketable**

- Sony SenSWIR technology captures both visible & SWIR light with one single sensor
- Unique sensor design eliminates SWIR issues in pixel size, image quality, functionality and pricing

**Chatou/France, 28 May 2020.** ATD Electronique as a major distributor of Sony image sensors announces that Sony has developed a cutting edge sensor technology combining visible wavelength and SWIR. This brand-new approach addresses and solves major obstacles that until now prevented the commercial breakthrough of the current available SWIR-sensor technology in industrial applications. This summer, ATD Electronique expects to receive first evaluation samples as well as an evaluation kit. The latter one can be borrowed temporarily by ATD customers for testing purposes.

### ***New technology addresses major SWIR drawbacks***

Existing SWIR image sensors are heavily behind from CMOS image sensors in their electro-optical performance. The high number of defect pixels requires intensive image quality correction. They also need outer memory and pre-memorizing for dark current compensation. Other issues are the large pixel size between 10~20 $\mu$ m; their restriction to 0.9~1.7 $\mu$ m wave length and a still high price level. In its endeavor to

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Founded in 1990, ATD Electronique, belonging to Macnica Inc, offers innovative components dedicated to imaging applications for the European market. Its product portfolio includes: image sensors (CCD, CMOS, InGaAs, Thermal etc.), optics, interface circuits, IPs, imaging processors, cables and OLED microdisplays. It also covers development tools and design services enabling fast and efficient realization of new high-performance camera systems for markets such as machine vision, medical, life sciences, surveillance, automotive....

**ATD Electronique S.A.S**  
2 - 6, rue Emile Pathé- Espace Lumière,  
Batiment 2, 78400 CHATOU - FRANCE  
Ph: + 33 1 30 15 69 70  
Fax: + 33 1 86 39 00 22  
[sales@atdelectronique.com](mailto:sales@atdelectronique.com)

**Press Contact:**  
Vision Communications - Andreas Breyer  
Mob: +49 151 12428585  
[breyer@vision-communications.eu](mailto:breyer@vision-communications.eu)

For more information visit ATD on the web at [www.atdelectronique.com](http://www.atdelectronique.com).

make SWIR technology competitive Sony addressed these major issues which until now disturbed market penetration of this technology. Sony was able to dramatically reduce pixel size to 5µm enabling lower costs and higher resolution. Another major improvement in the new Sony SWIR solution is the guaranteed waveband from 0.4~1.7µm that enables capturing both visible and SWIR light in one single sensor and eliminates the need to install a second camera for visible light. The new Sony SWIR sensors IMX990 for SXGA and IMX991 for VGA implement OPB ready and the outer memory results in a much lower real-time dark level. Sony also dramatically improved image quality compared to existing SWIR sensors by eliminating defects, shading and stripes through easy non-uniformity correction in a CMOS like flat layout. In terms of functionality the new Sony SWIR sensors are designed similarly to the digital Pregius sensor line and offer rich built in functions.

### ***Cooled and uncooled sensor packaging at competitive pricing***

Both sensors will be available in the two packaging types ceramic LGA (uncooled) and ceramic PGA with built-in thermoelectric cooling. Last but not least, high prices were another reason that until now hindered SWIR sensors to be commercially successful in machine vision applications. According to Sony the two new SWIR sensor types IMX990 and IMX991 will meet the market conditions for SWIR sensors at competitive prices. In line with Sony's Compliance rules they will not be sold to "Armed Forces" applications.

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**ATD Electronique S.A.S**  
2 - 6, rue Emile Pathé- Espace Lumière,  
Batiment 2, 78400 CHATOU - FRANCE  
Ph: + 33 1 30 15 69 70  
Fax: + 33 1 86 39 00 22  
[sales@atdelectronique.com](mailto:sales@atdelectronique.com)

**Press Contact:**  
Vision Communications - Andreas Breyer  
Mob: +49 151 12428585  
[breyer@vision-communications.eu](mailto:breyer@vision-communications.eu)

For more information visit ATD on the web at [www.atdelectronique.com](http://www.atdelectronique.com).