PRESS RELEASE

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TechSearch International Analyzes Potential for 3D Sensing Modules

Structured light and time of flight (ToF) are the dominant types of 3D sensing used for augmented reality, motion detection, gesture control, automotive/industrial 3D mapping, and proximity applications. These 3D sensing technologies are now appearing in smartphones. Apple's iPhone X and its Face ID technology was not the first smartphone with a 3D sensing system, but it was the first to have significant commercial success.

The iPhone X uses structured light sensing for the Face ID facial recognition. Qualcomm and Himax have jointly developed similar structured light sensing technology that several major smartphone manufacturers are expected to use in the near future. Huawei is said to be working on technology that uses ToF sensing for facial mapping.

3D sensing systems consist of several different components and modules, including camera modules, dot projectors, flood illuminators, and proximity sensors. Chips found within these include CMOS image sensors, VCSELs and VCSEL arrays, SPAD detector ICs, driver ICs, and mixed-signal control ICs. Highly advanced optics, packaging, and module integration technologies, including wafer level optic (WLO) lenses, diffractive optical elements (DOE), chip stacking, and wafer level packages, are used to build these complex systems.

The latest Advanced Packaging Update features an examination of the modules used in 3D sensing systems, including teardown images and X-rays, plus extra details on VCSEL technologies and devices. Information about the supply chain and market growth potential is provided. This Advanced Packaging Update is a 72-page report with full references and an accompanying set of 42 PowerPoint slides. The report also examines the latest fan-out WLP developments, trends in integrated photonics packaging, and an analysis of OSAT financials.

TechSearch International, Inc., founded in 1987, is a market research leader specializing in technology trends in microelectronics packaging and assembly. Multi- and single-client services encompass technology licensing, strategic planning, and market and technology analysis. TechSearch International professionals have an extensive network of more than 18,000 contacts in North America, Asia, and Europe. For more information, contact TechSearch at tel: 512-372-8887 or see www.techsearchinc.com. Follow us on twitter @Jan_TechSearch

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