



**IRVINE SENSORS**  
CORPORATION

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**IRVINE SENSORS QUALIFIES NEW STACKING PROCESS**  
**Converts Industry-Standard TSOPs to Stacked BGA Packages**

**FOR IMMEDIATE RELEASE**

COSTA MESA, CALIFORNIA – April 19, 2006 -- Irvine Sensors Corporation (Nasdaq: IRSN, Boston Stock Exchange: ISC) announced today that it has qualified a proprietary process for converting semiconductor chips originally packaged in Thin Small Outline Packages (“TSOPs”) into stacked assemblies with Ball Grid Array (“BGA”) attachments.

Joe Carleone, Chief Product Officer of Irvine Sensors, said, “We have qualified the first of our NeoChip™ family of products. NeoChip technology permits the complete 3D integration of heterogeneous assemblies of known good die that originate in a conventional package, such as a TSOP, which after 3D integration becomes an even denser ball grid array package. These packages are only slightly larger than the largest chip in the stack. The NeoChip process qualification used standard DDR-1 DRAM memory chips from Micron Technology, Inc. These chips were packaged and burned in prior to entering the NeoChip process, eliminating the concern with the infant mortality issues that have plagued the nascent 3D electronics elsewhere. This process was made all the more challenging because of the techniques used to achieve heterogeneity. NeoChip stacks exploit Irvine Sensors patented “tee” connects, which we believe will virtually eliminate high inductances and capacitances experienced by conventional 3D electronics. This first NeoChip product is composed of memory chips and can include a memory controller and other closely related chips. Future products, already at the prototype stage, are expected to involve entire electronics systems, including a version that replicates a personal computer.”

For additional information or quotations on Irvine Sensors’ stacked chip products, inquiries should be directed to Keith Gann, General Manager, 3D Electronics, at [kgann@irvine-sensors.com](mailto:kgann@irvine-sensors.com).

Irvine Sensors Corporation, headquartered in Costa Mesa, California, is primarily engaged in the development and sale of miniaturized infrared and electro-optical cameras, image processors and stacked chip assemblies, the sale of optical systems and components through its Optex Systems, Inc. subsidiary and research and development related to high density electronics, miniaturized sensors, optical interconnection technology, high speed network security, image processing and low-power analog and mixed-signal integrated circuits for diverse systems applications.

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**Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995:**

This news release may contain forward-looking statements based on our current expectations, estimates and projections about our industry, management's beliefs, and certain assumptions made by us. Words such as "anticipates," "expects," "projects", "intends," "plans," "believes," "seeks," "estimates," "may," "will" and variations of these words or similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to the potential capabilities of our NeoChip technologies and future products incorporating such technologies, and our expectations as to the likely industry demand for BGA products. Such statements speak only as of the date hereof and are subject to change. We undertake no obligation to revise or update publicly any forward-looking statements for any reason. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, our actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors.

Important factors that may cause such a difference include, but are not limited to, the market acceptance of BGA technologies; our ability to extend and complete the qualification of our process to chips offered by other manufacturers and to broaden our NeoChip product line; our ability to resolve any technical challenges we may encounter in such qualifications or development of future products; our ability to obtain adequate sources of supply for chips needed by potential customers; our ability to meet production volume, schedule and price requirements of potential customers; the potential unforeseen impact of product offerings from competitors; our ability to maintain or obtain adequate capital resources; and general economic and political conditions and specific conditions in the markets we address, particularly as it might effect the status of our contract manufacturing sources. Further information on Irvine Sensors Corporation, including additional risk factors that may affect our forward looking statements, is contained in our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K and our other SEC filings that are available through the SEC's website ([www.sec.gov](http://www.sec.gov)).