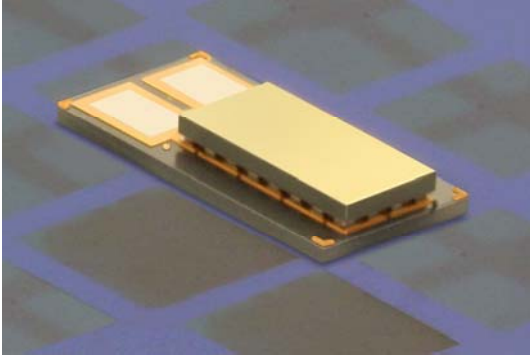


**FOR IMMEDIATE RELEASE**  
**October 15, 2008**



*Nextreme OptoCooler UPF40 Module*

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*Thin-film thermoelectric coolers and power generators to use gold/tin for interconnects...*

## **NEXTREME GETS THE LEAD OUT WITH ROHS COMPLIANCE**

**DURHAM, N.C. (October 15, 2008)** — Nextreme Thermal Solutions, the leader in microscale thermal and power management products for the electronics industry, today announced that future thermoelectric products will be manufactured using RoHS-compliant assembly methods. The company has developed non-lead-based solder processes for use in the manufacturing of its thin-film thermoelectric product line, meeting a major milestone in contributing to a healthier environment.

The Restriction of Hazardous Substances (RoHS) directive restricts the use of hazardous materials, including lead-based solder, in the manufacture of various types of electronic and electrical equipment. The directive was adopted in 2003 by the European Union (EU) in an initiative to address the growing global issue of substances found in consumer electronics waste that pose health risks. Although the EU has led the RoHS initiative, companies like Nextreme who are in the global electronics supply chain have followed suit in making their products RoHS compliant.

"RoHS compliance is becoming critical for companies like ours that operate in a global environment," said Dave Koester, vice president of engineering for Nextreme. "In addition to the health and environmental benefits of going lead-free, it's far more cost-effective to offer a product family that conforms to the world standard."

As the replacement for lead-based solder, Nextreme is using a Gold/Tin (AuSn) alloy. AuSn solder provides excellent joint strength and thermal conductivity. With a melting point of 278°C, AuSn enables the use of standard processes for the integration of Nextreme devices into photonic, microelectronic and optoelectronic device packages, such as laser diodes, semiconductor optical amplifiers and sensors, and to operate at higher temperatures.

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## **Nextreme Gets the Lead Out with RoHS Compliance, Page 2**

"Gold/tin's higher melting point and its acceptance in the optoelectronics market make the use of this alloy advantageous during assembly of our micro-scale thermoelectric products," said Koester. "It's another breakthrough allowing us to offer thin-film thermoelectric devices that conform to standard assembly processes."

Nextreme's thin-film thermoelectric products are manufactured in volume with the Copper Pillar Bump process, an established electronic packaging approach that scales well into large arrays. The Thermal Copper Pillar Bump process integrates thin-film thermoelectric material into the solder bumped interconnects that provide mechanical and electrical connections for today's high performance/high density integrated circuits. The company began production manufacturing of its OptoCooler product line in July 2008.

For more information, contact Nextreme at 3908 Patriot Dr., Suite 140, Durham, NC 27703-8031; call (919)-597-7300; e-mail [info@nextreme.com](mailto:info@nextreme.com); or go to [www.nextreme.com](http://www.nextreme.com).

### **About Nextreme Thermal Solutions™, Inc.**

Nextreme Thermal Solutions designs and manufactures microscale thermal and power management products for the electronics, telecommunications, semiconductor, consumer, and defense/aerospace industries. The company uses breakthrough thin-film thermoelectric material to embed cooling, temperature control and power generation capabilities into the widely accepted copper pillar bumping process used in high-volume electronic packaging. Nextreme's headquarters and manufacturing facility are based near Research Triangle Park, North Carolina.

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For additional information or to request the electronic image, please email [bgaddy@btbmarketing.com](mailto:bgaddy@btbmarketing.com) or call 919-872-8172.