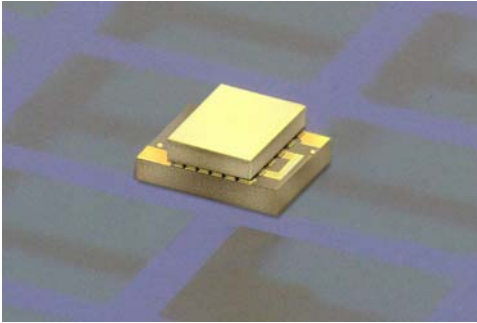


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Nextreme OptoCooler HV14 Module

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Thin-film thermoelectric coolers get smaller and more powerful with technology advances...

NEXTREME PUMPS UP WITH NEW OPTOCOOLER HIGH VOLTAGE SERIES

DURHAM, N.C. (October 22, 2008) — Nextreme Thermal Solutions, the leader in microscale thermal and power management products for the electronics industry, today announced the availability of the OptoCooler HV series, a new class of RoHS-compliant high voltage and high heat pumping thermoelectric coolers that are optimized for standard circuitry and power requirements. The first module in the series, the OptoCooler HV14, is the latest product in Nextreme's OptoCooler™ family of thermoelectric coolers designed specifically for the optoelectronics and telecommunications industry.

The OptoCooler HV14 operates at a maximum voltage of 2.9V and can pump 1.7 watts of heat at 85°C in a footprint of only 2.8 mm². The module can create a temperature differential (ΔT) of up to 51°C between its hot and cold sides, making it ideally suited for the cooling and temperature control of optoelectronic devices such as laser diodes and high brightness LEDs.

At the core of the OptoCooler module is Nextreme's breakthrough Thermal Copper Pillar Bump, an electronic device made from thin-film thermoelectric material embedded in flip chip interconnects (in particular, copper pillar solder bumps) used in electronic and optoelectronic packaging. Thermal bumps act as solid-state heat pumps and add thermal management functionality locally on the surface of a chip or other electrical component. Based on market demand and recent technology advances, Nextreme has reduced the size of the thermal bump by 75%, thereby increasing voltages by 300% and reducing current draw by the same proportion. The net result eliminates the need for special voltage conditioning and reduces the overall electrical current required to operate the device.

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Nextreme Announces OptoCooler HV Series, Page 2

The new platform uses an array-based assembly (ABA) process that represents a vast improvement in throughput capability and manufacturing tolerances. The ABA process decreases the size of Nextreme's thermal bumps to approximately 125 microns, which makes them flip-chip bumping compatible with standard solder bumping processes commonly used in electronics packaging. Consequently, as product volumes scale, manufacturers of LEDs and other semiconductor chips can integrate cooling and temperature control functionality directly in the package during assembly, resulting in a high-volume, low cost thermal management solution.

"The new HV Series removes unique voltage and current requirements as barriers to the integration of thin-film thermoelectrics into electronics," said Dave Koester, Vice President of Engineering for Nextreme. "The standard voltages and current operating ranges of the new OptoCooler HV14 fit well within the typical power design criteria for optoelectronic components and systems."

The OptoCooler HV14 is RoHS compliant and is available for order now. Pricing is available upon request.

More information on the OptoCooler HV14 can be found at www.nextreme.com/optocooler. Contact Nextreme at 3908 Patriot Dr., Suite 140, Durham, NC 27703-8031; call (919)-597-7300; e-mail info@nextreme.com; or go to 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 or call 919-872-8172.