# Electronics cooler is only 0.6mm high

Nextreme Thermal Solutions today introduces the eTEC HV56 module, the next product in its high-voltage (HV) line of thin-film thermoelectric coolers (TECs) designed to address electronics cooling applications with larger heat pumping requirements. At 85°C, the eTEC HV56 can pump 6 watts or 58 W/cm2 of heat in footprint of only 11 mm2. The device is only 0.6mm high, making it the thinnest, highest heat pumping TEC on the market today.

At 85°C, the eTEC HV56 can create a temperature differential (?T) of up to 60°C between its hot and cold sides, and operates at a maximum voltage of 10.8V, making it compatible with commonly found board-level currents and voltages. At 25°C, the device can create a ?T of up to 50°C with a maximum voltage of 8.8V.

The eTEC HV56 is RoHS-compliant and is manufactured using gold-tin (AuSn) solder, which enables assembly temperatures as high as 320°C. These assembly temperatures make the HV56 compatible with industry standard processes for packaging electronic devices that require tight tolerances.

"Many of our customers have been asking for a higher wattage device in a single package," said Dave Koester, vice president of engineering at Nextreme. "The eTEC HV56 has four times the heat pumping capacity of our HV14 module and operates at higher voltages, making it easier to drive. The introduction of the HV56 also demonstrates our ability to scale up our technology in a variety of configurations based on customer requirements."

Nextreme engineers are currently working with customers in a variety of industries and applications. These include laser diode cooling, high-speed thermal test heads, and CPU hot spot cooling.

The eTEC HV56 module is available with an 8 to 10 week delivery lead time. Pricing is available upon request.

Nextreme recommends the use of its thermal modeling, design and engineering services to deliver fully-optimized thermal management solutions. Nextreme routinely conducts analytical and numerical thermal modeling at all design levels from component to module to subsystem. Advanced analysis of complex systems, components or packages often requires more detailed modeling to understand heat flow and thermal gradients.

More information on the eTEC family can be found at www.nextreme.com/etec [1] Contact Nextreme at 3908 Patriot Drive, Suite 140, Durham, NC 27703-8031; call (919)-597-7300; e-mail info@nextreme.com [2] or go to www.nextreme.com [3]

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