Coherent Introduces Thermadite Liquid Cold Plates for High-Power Compute Applications

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SAXONBURG, Pa., March 05, 2026 (GLOBE NEWSWIRE) -- Coherent Corp. (NYSE: COHR), a global leader in photonics, today announced the launch of Thermadite™ 800 Liquid Cold Plates (LCP) for next-generation AI accelerator cooling.

Thermadite 800 delivers thermal conductivity of 800W/(m·K) - approximately twice that of copper - combined with a low coefficient of thermal expansion and high dimensional stability. Together, these properties reduce chip temperatures through superior heat spreading and low-resistance thermal interfaces.

In high heat flux AI accelerator environments, Thermadite 800 LCPs can reduce chip temperatures by more than 15°C compared to conventional copper cold plates. The material also offers roughly 60% lower density than copper, enabling high-performance cooling in mass-sensitive systems.

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Coherent announced the launch of Thermadite™ 800 Liquid Cold Plates (LCP) for next-generation AI accelerator cooling.

Thermadite is formed by integrating diamond into the SiC matrix creating a stiff, stable, and highly thermal conductive material. The properties of Thermadite 800 provide a platform that supports aggressive liquid cooling without the warpage, stress, or reliability concerns associated with metal and metal-diamond cold plates.

LCPs built with Thermadite 800 can include complex internal microchannel architectures optimized to real chip heat maps. These designs focus cooling on localized hot spots, minimizing pressure drop and coolant usage, enabling more efficient heat removal and reducing overall cooling system
operating cost.

"Effective cooling in high-performance computing depends on the entire thermal route from chip to coolant," said Steve Rummel, Senior VP of the Engineered Materials Group. "By merging decades of material science with precision manufacturing, Thermadite liquid cold plates lower chip temperatures, optimize pressure flow, and minimize interface resistance - all specifically designed for the extreme requirements of modern AI chips."

Thermadite 800 LCPs leverage Coherent's vertically integrated materials development, precision fabrication, and high-volume manufacturing capabilities. Examples of Thermadite 800 LCPs will be featured at the SEMI-THERM Symposium & Exposition 2026 and the Optical Fiber Communication Conference and Exhibition (OFC) 2026.

For more details please visit: Thermadite Liquid Cold Plates | Coherent.

About Coherent

Coherent is the global photonics leader. We harness photons to drive innovation. Industry leaders in the datacenter, communications, and industrial markets rely on Coherent's world-leading technology to fuel their own innovation and growth. Founded in 1971 and operating in more than 20 countries, Coherent brings the industry's broadest, deepest technology stack; unmatched supply chain resilience; and global scale to help its customers solve their toughest technology challenges. For more information, visit us at coherent.com.

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A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/32bd4921-1373-41cd-8337-6944d3186784