

**For Immediate Release**



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## **Laird Temperature Microcontroller Monitors and Protects Medical Diagnostic Equipment**

***SR-54 bi-polar temperature controller can save engineers hundreds of product development hours by installing this ready-to-use controller that has been optimized to run thermoelectric cooler assemblies...***

**April 12, 2016** – Laird Thermal Systems has developed the SR-54 Series programmable temperature controller that can be incorporated into a thermoelectric cooler assembly to add integrated, customizable and precise temperature control for medical diagnostic equipment. Temperature stability is vital in medical diagnostic equipment including ultrasound, MRI, PET, CT, and X-ray machines. Even small fluctuations in the operating temperature of these machines can significantly affect the image quality and resolution. Likewise, analytical instruments such as spectrometers, particle analyzers and chromatography equipment can produce flawed data when operating outside operating temperature ranges.

The bi-directional SR-54 Series is microcontroller based device with built-in monitoring and closed loop feedback control intelligence. The SR-54 Series temperature controller protects critical medical diagnostic equipment and analytical instruments, ensuring maximum uptime and optimal performance.

Standard off-the-shelf controllers are too complex, or do not have basic alarm and control features required to operate a thermoelectric cooler assembly effectively. Previously, engineers had to design their own system from the ground up for thermoelectric cooler assembly monitoring and control capability, which is an expensive and time-consuming proposition. The customizable SR-54 Series thermoelectric controller can easily be programmed to identify a problematic fan, thermoelectric cooler, over-temperature thermostat and temperature sensor failure, all of which are critical to maximizing medical and lab equipment uptime. By installing this ready-to-use bi-polar temperature controller that has been optimized to operate thermoelectric cooler assemblies, engineers can save hundreds of product development hours

“Our SR-54 Series controller is the ideal complement to thermoelectric-based thermal management of medical diagnostic and analytical instrumentation cooling/heating applications, where maximum uptime and optimal performance are top priorities,” said Anders Kottenauer, Senior Vice President of Laird's Engineered Thermal Systems unit. “All programming is conducted in-house by Laird engineering to the customer's unique requirements.”



## THERMAL SYSTEMS

The SR-54 Programmable Controller is a microcontroller-based device that drives thermoelectric cooler assemblies to exact temperature set points in cooling and heating mode. The controller can accommodate up to three NTC thermistors and can control temperature to within  $\pm 0.15^{\circ}\text{C}$  under steady state conditions. The ready-to-use controller requires minimal programming out of the box and can be easily adhered to a thermoelectric cooler assembly or system enclosure.

### Key System Features:

- Ideal for thermal management systems seeking closed loop feedback control
- Input power accommodates a supply voltage ranging from 16 to 60 VDC
- Output power supports thermoelectric coolers and three DC fans with a maximum available current of 20 Amps
- Additional outputs provide an LED feature that displays the health of the thermoelectric cooler assembly
- Fans can be controlled for noise optimization
- Hardware circuit protection guards against reverse polarity conditions

More information on the SR-54 Series Bi-Directional Programmable Controller for Thermoelectric cooler assemblies can be found by visiting <https://www.lairdthermal.com/products/product-series/bi-directional-thermostatic-controllers>

### About Laird Thermal Systems

Laird Thermal Systems develops thermal management solutions for demanding applications across global medical, industrial, transportation and telecommunications markets. We manufacture one of the most diverse product portfolios in the industry ranging from active thermoelectric coolers and assemblies to temperature controllers and liquid cooling systems. Our engineers use advanced thermal modeling and management techniques to solve complex heat and temperature control problems. By offering a broad range of design, prototyping and in-house testing capabilities, we partner closely with our customers across the entire product development lifecycle to reduce risk and accelerate their time-to-market. Our global manufacturing and support resources help customers maximize productivity, uptime, performance and product quality. Laird Thermal Systems is the optimum choice for standard or custom thermal solutions. Learn more by visiting [www.lairdthermal.com](http://www.lairdthermal.com)

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