



ATS ADVANCED
THERMAL
SOLUTIONS, INC.
Innovations in Thermal Management®

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CPU Cooler for Dense PCBs Pulls in Air from Four Directions

February 10, 2022 - Advanced Thermal Solutions, Inc. (ATS) is now providing quadFLOW™ active CPU coolers, designed to cool high powered chips in densely filled locations. quadFLOW active coolers pull air from four directions to maximize thermal performance where airflow is limited, and conventional cooling solutions are ineffective.



Many 1U and 2U servers have constrained internal airflow. This can make cooling today's highest-performing Intel, AMD and Nvidia chips difficult. If a cooling system can't effectively manage chip heat, a processor may reduce its speed for safety, which can compromise computer performance. ATS quadFLOW coolers, drawing cooling air from four directions, are ideal for cooling such 1U and 2U systems and capable of handling a max TDP of 160W. Cooling performance is 20% higher than other coolers.

Provided standard with PEM attachment hardware, quadFLOW coolers are designed to precisely fit the ILM (Independent Loading Mechanism) retention device on Intel LGA 2011 (Socket R) and newer LGA 2066 (Socket R4) CPU sockets. The PEMs align with the mounting hole patterns in the LGA 2011 and LGA 2066 square ILM (80 x 80 MM) CPU sockets. An ATS backing plate allows quadFLOW's use with AMD, Nvidia and other non-intel CPUs.

The blowers on quadFLOW active CPU coolers have a PWM (pulse width modulation): 10.8 VDC ~ 13.2 VDC operating voltage, with an MTBF of 598,000 hours measured at 40°C. When weight is an issue, choose quadFLOW coolers with aluminum fins. For higher performance, copper fins are available. When higher cooling levels are needed, quadFLOW coolers can be paired with a vapor chamber base.

quadFLOW coolers come with pre-attached Parker Chomerics high performance (3.0 W/m-k thermal conductivity) T670 thermal grease. T670 supports high power applications requiring minimum bond line thickness.

Find more information about ATS quadFLOW coolers at <https://www.qats.com/eShop.aspx?q=Ultra-Cool%20High-Power%20Device%20Coolers>

quadFLOW CPU Coolers are available from ATS' world-wide distribution network, including Digi-Key, Mouser and Sager. More information is available on the company's website, Qats.com and by email at ats-hq@qats.com.

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About Advanced Thermal Solutions

For more than 30 years, Advanced Thermal Solutions, Inc. (ATS) has been a global engineering and manufacturing company focused on the thermal management of electronics. Founded in 1989 as a consulting company, ATS today is a complete airflow filtration and thermal solutions provider. ATS provides a family of ultra-low temperature freezers and air cleansers for room-level air filtration to remove viruses, including COVID-19. ATS is also world-renowned for its portfolio of more than 5,000 high- and ultra-performance heat sinks. It provides industry-leading liquid cooling solutions, the broadest off-the-shelf line of heat pipes, expert consulting and design services, research-quality test equipment, and leading-edge R&D. ATS has a manufacturing center in the U.S. and strategic partnerships with global manufacturers to provide its global customers with complete thermal solutions ready to tackle the industry's toughest challenges. ATS is headquartered in Norwood, MA, about 30 minutes south of Boston. Learn more at <https://www.qats.com/>