



**ATS** ADVANCED  
THERMAL  
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Innovations in Thermal Management®

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ATS Thermal Test and Analysis Instruments and Wind Tunnels Now Carried by Mouser and Digi-Key

August 20, 2020 – NORWOOD, MA – Advanced Thermal Solutions, Inc. (ATS) announced today that its thermal test and analysis instruments, sensors, and wind tunnels are now being carried by Mouser Electronics and Digi-Key Electronics.

Both Digi-Key Electronics and Mouser Electronics are carrying ATS hot wire anemometers for measuring air temperature and air velocity: the eATVS-4™ (4 sensor ports), eATVS-8™ (8 sensor ports), and ATVS-2020™ (32 sensor ports) Automatic Temperature and Velocity Scanners. The distributors are also carrying the NASA Tech Briefs award-winning iQ-200™, a multifunction instrument that measures air temperature, velocity, and pressure with a single instrument. These accurate, research-quality instruments are fully automated and record accurate single- or multi-point measurements of air temperature, velocity, and surface temperature in complex environments, such as PCBs and electronics enclosures. When used as temperature loggers, they can measure both fluid and solid temperatures.

Sensors are an important part of any instrument deployment and both Digi-Key Electronics and Mouser Electronics are carrying two kinds. The first is the Candlestick Sensor, a flexible, robust sensor that measures both air temperature and velocity in a single unit. The second is the Micro Sensor, a handheld sensor specially designed for measuring fluid velocity and temperature in electronics and other areas that are densely packed. It can be used where space between boards is less than 4mm. All sensors require one of ATS' hot wire anemometer systems for operation.

Wind tunnels are ideal for thermal characterization studies on components, circuit boards, and cooling devices such as heat sinks. Digi-Key Electronics and Mouser Electronics are carrying two types of wind tunnels from ATS: Open Loop and Closed Loop. Open-loop wind tunnels draw air into the wind tunnel from the outside and drive it across the test section of the wind tunnel. They are useful for applications that do not require heated air to be driven over the test object. Closed-loop wind tunnels on the other hand allow air to be heated. The heated air can be precisely controlled for temperature and velocity and driven over the test object.

The open-loop wind tunnel the distributors are carrying is the BWT-104™, a vertical or horizontal benchtop wind tunnel. The polynomial shape and internal flow management system includes honeycombs and screens to break up turbulent air to provide uniform, homogeneous flow, up to 4 m/s (800 ft/min) within the test section.

Both Mouser and Digi-Key Electronics are carrying two of ATS's closed-loop wind tunnels, the CLWT-115™, and the CLWT-067™. Both are research-quality closed-loop wind tunnels that provide a convenient, accurate system for thermally characterizing PCBs and individual components at controlled temperatures from ambient to 85°C.

Both closed loop wind tunnels produce air flows up to 7 m/s (1,378 ft/min). With customization, they can generate flows up to 50 m/s (10,000 ft/min) using orifice plates (an optional add-on). The clear Lexan test section lets the user view the test specimen and allows for flow visualization using dry ice or smoke flow. The test section dimensions for the CLWT-067™ are (L x W x D): 41.8 x 22.5 x 8.9 cm (16.4 x 8.9 x 3.5"). The test section dimensions for the CLWT-115™ are (L x W x D): 77.6 x 26 x 11.6 cm (30.5 x 10.2 x 4.5")

While the instruments, sensors, and wind tunnels that Mouser and Digi-Key are carrying all deal with air temperature, velocity, and pressure, the two distributors are also carrying surface temperature measurement instruments as well. Surface temperature

measurement is extremely helpful in letting engineers perform precision temperature measurement of electronics, circuit boards, micro-circuits, hybrid components, and integrated circuits. Both distributors are carrying ethermVIEW™, tvLYT™, and the TLC-100™. Each surface thermography system gives engineers a critical tool in measuring surface temperature. All systems use thermochromic liquid crystals (TLC) to measure temperature.

Digi-Key and Mouser are also carrying three ATS specialty instruments, designed for specific thermal analysis needs: Fan Characterization and Cold Plate Testing. The Fan characterization modules, FCM-50™, and FCM-100™ are specialized units designed to test and characterize fans of various sizes and performance outputs. The iFLOW-200™ system measures the thermal and hydraulic characteristics of a cold plate. It replaces the complex process of varying the volumetric flow rate of the coolant and measuring the pressure drop and temperature of the cold plate. iFLOW-200™ users simply set up the starting flow, ending flow, the number of test points, dwell time, power applied to the cold plate and other parameters in the provided coolingVIEW™ software and run the test.

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#### About Advanced Thermal Solutions

Advanced Thermal Solutions, Inc. (ATS) is a leading, the U.S. based, engineering and manufacturing company supplying complete thermal and mechanical packaging solutions to the electronics industry for over 30 years. ATS offers products, analysis, testing, and final low or high-volume production of the cooling solution. The company provides air-cooling and liquid-cooling solutions, including heat sinks, heat pipes, vapor chambers, cold plates, heat exchangers, and liquid-based chillers. ATS also provides laboratory-quality thermal test instruments and services including thermal design and engineer training. For more information about ATS, visit <https://www.qats.com> or email [ats-hq@qats.com](mailto:ats-hq@qats.com).