

CLWT-067-PCIe[™]

BENCHTOP CLOSED LOOP WIND TUNNEL FOR ELEVATED TEMPERATURE TESTING OF PCIe BOARDS AND COMPONENTS

The CLWT-067-PCle™, is a unique closed loop wind tunnel for thermal characterization of components, boards and heat sinks specifically for full and half size PCle cards. The unit is made of aluminum, sheet metal and LEXAN™ and produces flows up to 1400 ft/min (7 m/s) and temperature up to 85°C.

The **CLWT-067-PCle™** uses the proven technology of the CLWT-067™ and adds a new test section specially designed for the thermal testing and characterization of either full or half-height standard PCle cards.

The **CLWT-067-PCle™** wind tunnel produces air flows up to 7 m/s (1,400 ft/min). With customization, it can generate flows up to 50 m/s (10,000 ft/min) using orifice plates (available optionally). The cl

orifice plates (available optionally). The clear LEXAN™

test section lets the user view the test specimen and allows for ease of flow visualization.

Unlike open loop wind tunnels, the CLWT-067-PCle™ recirculates internal air. This allows the system heater to quickly warm the air to a specific temperature. The testing of boards and components in hot air is a requirement in many electric systems such as components and power supplies. The precise controls of air temperature and velocity along with the board temperature range of the CLWT-067-PCle™ wind tunnel makes it a versatile test instrument for a variety of applications.

The complete wind tunnel fits on most lab benches and is powered from the CLWTC-1000™ and the stageCONTROL™ software (included with the wind tunnel purchase). The CLWTC-1000 requires 220 VAC at 20 Amps. The wind tunnel test section allows for 5 Sensor ports to provide access for sensors, pitot tubes or thermocouples to measure air velocity, pressure, humidity and temperature (separate hot wire anemometer or other instrument required)





OVERALL DIMENSIONS (L X W X H)

143.1 x 49.3 x 67.7 cm (56.37 x 19.4 x 26.6")

TEST SECTION DIMENSIONS (L X W X H)

43.1 x 25.0 x 8.9 (inside wall to wall) cm (16.9 x 9.8 x 3.5")

NUMBER OF INSTRUMENT PORTS

5

FLOW RANGE

0 to 7 m/s (1400 ft/min)

TEMPERATURE RANGE

Ambient to 85°C (Ambient to 185°F)

WEIGHT

70.7 kg (156 lbs.)

FEATURES:

» PCIe Specific

Purpose designed and built for the thermal testing and characterization of thermal management solutions for PCIe cards

» High Temperature Testing

Evaluate the effects of elevated temperatures on components, power supplies or PCIe cards at different velocity

» Aerodynamic & Pressure Drop Measurement

Measure the effect of air flow on drag and pressure drop for components and boards

» Flow Characteristics

High quality, uniformed flow with very low turbulence intensity

Wind Tunnel Controller

Control flow and temperatures while viewing data and monitoring events with CLWTC-1000

Component Testing

Evaluate the effects of air flow on an individual or multiple component's temperature and PCB response and reliability

» Quick Access

Quickly change the test specimen through the top access test section

» Multiple PCB Testing

Test actual or simulated PCBs for thermal and air flow distribution

» Heat Sink Characterization

Characterize a variety of heat sink sizes for natural and forced convection cooling

» Sensor Calibration

Precision temperature and velocity controls allow accurate calibration of sensors

» CUSTOM VERSIONS AVAILABLE

Call us and talk to our engineers for custom versions for your specific applications



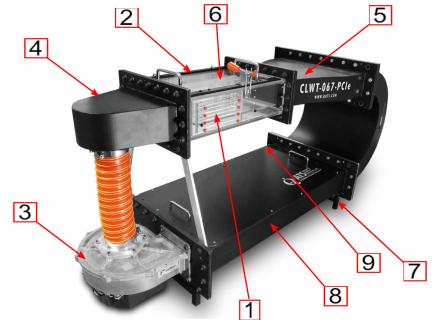


CLWT-067-PCIe[™]

BENCHTOP CLOSED LOOP WIND TUNNEL FOR ELEVATED TEMPERATURE TESTING OF PCIe BOARDS AND COMPONENTS

HOW TO CONFIGURE THE PCIe TEST SECTION

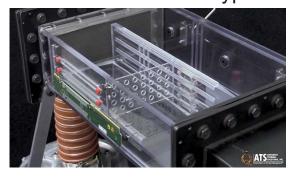
- PCle riser card slots (riser cards not included with the wind tunnel) and test section (test section is included with the wind tunnel)
- 2. Instrument ports
- 3. Blower
- 4. Diffuser section
- 5. Nozzle section
- 6. Test section top cover panel
- 7. Stands
- 8. Heater section
- 9. Heater power plug



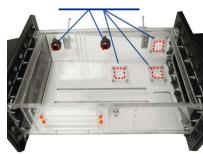
PCIe Specific Test Section



Baffles are included to direct air and reduce air flow bypass



5 ports are included for sensors, pitot tubes or thermocouples



CLWTC-1000 Controller and Software

