

# exatron PET-4D TEST STATION

## BENCHTOP TEMPERATURE FORCING SYSTEM

-80°C Actual  
recorded test  
temperature



- Semi-automated hand thermal testing.
- -80°C to +175°C.
- Interlock-protected operation.
- No ESD concerns.
- No need to return to room temp between tests.
- Uses same sockets, test interface, tooling, and docking as Exatron pick and place handlers.



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- Features Exatron's Wide Range Thermal Head (WRTH) and our proven direct contact thermal test method.
- Guaranteed working range:  
-55°C to +155°C (-80°C to +175°C)
- +/- 0.2°C temperature control.
- +/- 0.2°C temperature accuracy.
- Cooling power of 60 W at -55°C.
- No fluids required.
- No forced air. No ESD concerns usually associated with fast moving dry air.
- No 3 phase power required.
- Semi-automatic operation:  
computer controls WRTH movement to and from socket.
- Computer controls soak times. Test never starts before DUT is at set temperature.
- Fully enclosed by ESD-safe front door equipped with electrical interlock.
  - Soak times and testing begins as soon as door is closed.
  - Magnetically-coupled cylinder will not move when door is open.
- Sits on a standard work bench
- Legs can be removed to direct dock with tester or for larger benchtop applications.
- Optional direct docking plates for all models of large ATE test heads.



*Direct dock mode uses same docking hardware as Exatron pick and place handlers.*

*Switch dock from PET-4D to handler in a matter of minutes.*



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Exatron's comprehensive frost prevention system eliminates frost issues.

- Magnetically-coupled shutter opens only when removing/replacing DUT.
- Built-in purge for thermal head and test socket
  - Allows for cold test without having to return to room temperature between tests cycles.
- Built-In purge requires clean, dry air. (Air dryer sold separately)
- Purge air control panel allows precise control of where purge air is applied during test.
  - Allows for hours-long testing with ZERO FROST ISSUES.
- Computer turns off all purge air for room temperature and hot testing.
- Exceptionally small thermal keep out zone is under 3". (Forced air systems are usually 12")
- Every effort is made to control the temperature for only the DUT and socket, not the surrounding test electronics.
- Fast air blast cycle reduces time waiting for thermal head to achieve set temperature and when returning to room temperature.



Shutter is open only during device removal/replacement



Test site features foam gaskets at the top and bottom of the socket.



Even at -80°C there is no frost on the test head.



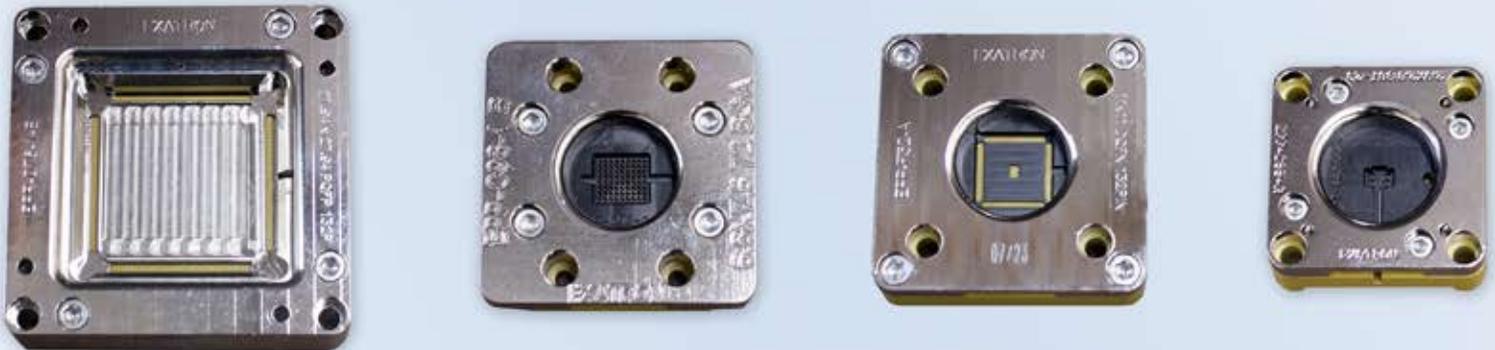
Eliminates frosted sockets. Replaces forced air systems.



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## BENCHTOP TEMPERATURE FORCING SYSTEM

Achieves blazing fast soak times and remarkably stable temperatures when paired with Exatron's Copperhead® Thermal Test Socket. (Contact Exatron for details.)



Exatron Copperhead® Thermal Test Sockets

### PET-4D Specs:

**Dimensions:** 15.9" (40.4 cm) W,  
18.5" (47 cm) D,  
25.5" (64.8 cm) H

**Chiller:** 15" (38.1 cm) W,  
20.2" (51.3 cm) D,  
22.1" (56.1 cm) H

**Weight:** ~48 lb (22 kg)  
(not including chiller  
or optional docking plates)

**Power:** 120 VAC, 60 Hz, 12 A  
-or-  
230 VAC, 50 Hz, 7.5 A

**Cooling Power:** 60 W @ -55°C  
130 W @ -40°C  
160 W @ 0°C

**Device Size:** Max: 30 mm x 30 mm  
(larger options available)

- Thermal head connects to chiller via 6ft (1.8 m), 2.5" (6.4 cm) hose.
- Meets all known ESD requirements.
- Quiet operation. 55-65 dBA.
- Can use the same RS-232, GPIB and TCP/IP test interfaces as any Exatron handler.
- CE Mark
- Made in USA at Exatron in San Jose, CA

Contact [sales@exatron.com](mailto:sales@exatron.com)  
for info.

