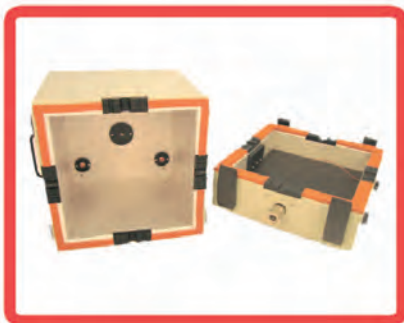


## The Features

- Fully customizable high performance interface
- Temperature ranges of  $-80^{\circ}\text{C}$  to  $+225^{\circ}\text{C}$  (opt  $-100^{\circ}\text{C}$  to  $+300^{\circ}\text{C}$ )
- Double walled aluminum construction with RoHs compliant finish
- Silco-Soft™ high temperature insulation
- Low thermal mass design
- Performance tuned airflow manifold
- Excellent thermal uniformity
- Interchangeable test cartridges for PCB or module level testing
- Compatible with all Temptronic™ TPO Series ThermoStream® Temperature Forcing Systems



# FixTreme Series Moisture-Free Thermal Test Enclosure



## The Product...

The DVTEST FixTreme is a cost effective, high performance thermal test enclosure for your Device Under Test (DUT). Thermal design margins in next generation devices and systems require precise thermal characterization to maximize performance at temperature. The MTBF (Mean Time Between Failures) value drops by half its value for every  $10^{\circ}\text{C}$  rise in ambient temperature around the DUT.

Available in several design configurations including conventional hood, stackable lid, or clamshell, FixTreme thermal enclosures can be custom sized to fit your requirements. This is an important consideration for applications where thermal stressing is required. This occurs when the  $dT/dt$  exceeds  $10^{\circ}\text{C}/\text{sec}$ , the enclosure's thermal mass can severely restrict thermal synchronization between the DUT and enclosure.

Devices with onboard digital thermal sensing and monitoring technology to protect from thermal failure, can easily integrate with a Temptronic™ TPO Series ThermoStream®. Thermal precision of  $\pm 0.1^{\circ}\text{C}$  is achieved through a patented DUT Dual Loop feedback control circuit sampling every 250 ms. The result is a fast and accurate way to control air flow and temperature to the enclosure and your device.

All units are lightweight, portable enclosures ideal for "at temperature" design verification test, burn-in, HALT & HASS pre-compliance, or as an interface to a functional tester. The enclosures are configured to accommodate testing over a wide temperature range. The FixTreme Series provides a moisture and static free thermal test environment isolating the DUT from external interference.

## The Flexibility...



### Custom Size & Fitting

The FixTreme's biggest advantage is that it can be custom sized, shaped, and fitted allowing DUTs to be placed virtually anywhere inside the enclosure. This means maximum versatility in testing components, sensors, and assemblies all with one single enclosure. Add viewing ports for visual inspection or infrared thermography, mounting brackets for various thermal imagers, configurable air inlets and outlets, and the FixTreme provides infinite possibilities.



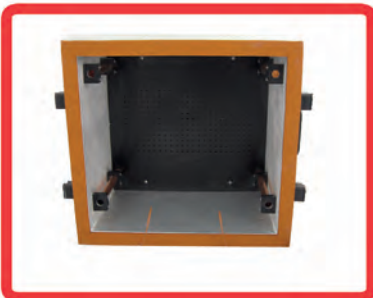
### Safety & Protection Interlocks

Safety to the user and DUT are essential. The FixTreme can be equipped with an integrated locking mechanism preventing opening of the lid prior to completion of the test.



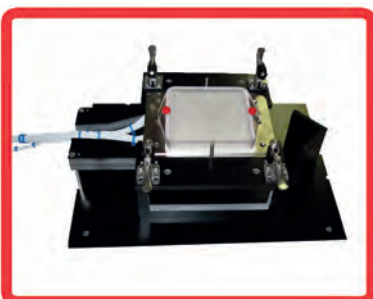
### Performance Tuned Manifold Design

The performance tuned manifold provides maximum thermal transfer efficiency from the air stream source to the DUT. Low thermal mass is key to increasing responsiveness while minimizing transients. All single or multi port manifold designs are custom engineered and regulated to deliver calibrated flow and pressure. The result; temperature uniformity and no dead air spots.



### Quickly Connect

Enclosures are equipped with Swaglok™ rugged instrumentation grade (316 stainless steel) quick connect style fitting. These high performance connectors are ideal for test systems requiring full flow, frequent connection, minimal air inclusion, and spillage. Quick connect ensures convenient and easy access to setup and teardown.



### Interchangeable Test Cartridges

The versatile ESD compliant PTFE machined base plate design enables the FixTreme instant compatibility with any load board or third party functional tester interfaces. Quickly swap out one test cartridge for another without needing a second test enclosure. Cartridges can also be custom designed and fabricated with integrated Performance Tuned Manifolds to meet any application.



### Managing Cables

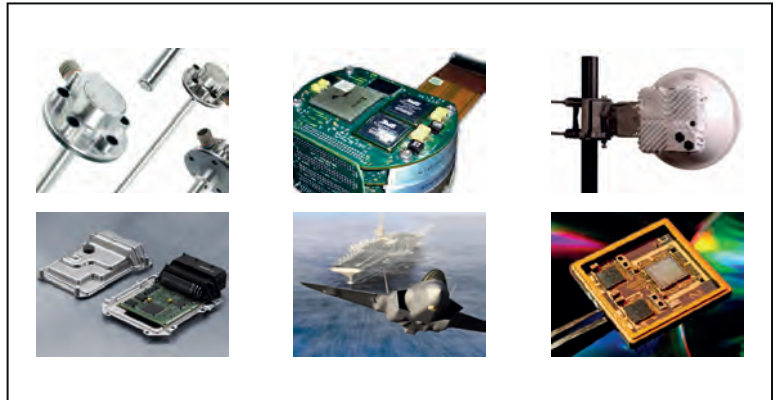
FixTreme enclosure designs allow convenient passthrough ports for electrical access to the DUT. Cable routing and management are available for: RF, power, signalling and control cables. Virtually any diameter or shape can be accommodated. Bend radius and cable strain are always taken into consideration. The design also supports feedthrough or bulkhead connectors. Whatever the requirement, proper cable routing is key in preventing frost build up or air leakage.

# The Applications...

The performance of today’s semiconductors, sensors, mobile devices, and other components relies on their ability to functionally perform through a wider range of temperatures. Increased densities and higher speeds means DUT operating temperatures in devices such as CPUs can reach core temperatures in excess of 85°C. The link between the DUT and the test equipment provides an essential feedback loop in the precise control of temperature. With increasing bandwidth, sensitivity, attention to thermal properties from external sources is key. These test enclosures provide thermal isolation excellence. They can be used for temperatures starting at –100°C and up to +300°C. Combined with a “modular and customizable options” concept, the FixTreme is indispensable for any thermal test application.

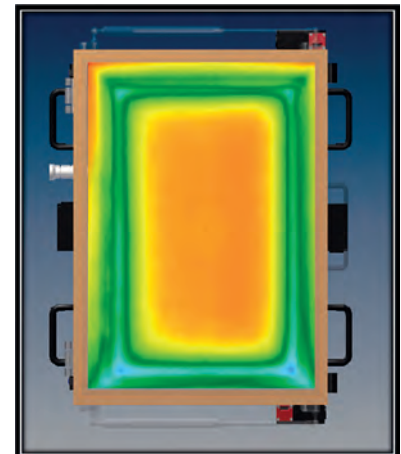
# The Markets...

- Aerospace
- Communications
- Medical
- Military
- Transportation
- Wireless
- Sensors
- Fiber optics
- Semiconductor
- Materials research
- Nanotechnology
- Electronic assemblies



# The Benefits...

- The FixTreme comes in three standard footprints to satisfy any application. Full dimensional customization is available.
- Interchangeable test cartridge design enables you to efficiently convert from one product to another in minutes reusing the same enclosure.
- Spacious interior allows you to test multiple devices on the same cartridge resulting in higher throughput and lower cost of test.
- All units are validated and supplied with a certificate of calibration for traceability.
- Excellent thermal uniformity ensures constant temperature across the enclosure.
- Single point design, manufacturing, and support services.



FixTreme general specifications: (applies to all configurations)	
Standard features	Options & Accessories
√ Double walled aluminum construction	⇒ Internal ESD compliant PTFE base plate
√ Minimum 1” Silco-Soft™ insulation	⇒ Viewing ports for visual inspection
√ Swaglok™ quick connect fitting	⇒ Infrared Thermography compatibility kit
√ Configurable Air inlets	⇒ Safety & protection interlocks
√ Performance tuned single port manifold	⇒ ITAR compliant intrusion locking system
√ Integrated cable tray (max 2)	⇒ Bulkhead connectors (eg: SMA, N, QMA, USB, RJ45)
√ 4” carrying handles	⇒ Interchangeable test cartridge
√ (2) Thermocouple or RTDs for DUT sensing	⇒ Internal fixturing for bed of nails, load boards
√ Temperature range –80°C to +225°C	⇒ Performance tuned multiport manifold
√ Full flow design optimization for rates up to 18 cfm	⇒ Extended Temperature range –100°C to +300°C
	⇒ Flexible mating hose assembly (0.5m, 1m, 2m, custom length)

**For a complete list, visit our website or contact your local account manager.**

**Configurations**

**Conventional Hood**

**Stackable Lid**

**Clamshell**



# DVTEST

For over 20 years our passionate and dynamic approach has allowed us to serve a variety of applications within diverse markets including aerospace, education, telecommunications, power, RF & microwave, wireless and more with custom solutions and after sales support.

## High Performance Products Also Available

### ThermoClamp



The ThermoClamp™ incorporates thermal testing into a conventional mechanical z-axis fixture. One single engagement ensures reliable connections and that the DUT reaches the desired temperature quickly and accurately.

Conventional thermal enclosures use a "hood" type of approach, where the entire mechanism is subjected to the thermal variance. This can result in limited performance and slow transition times. The ThermoClamp™ integrates the chamber into the fixture, allowing a smaller volume and thermal mass to be temperature cycled; resulting in increased test times up to 10X faster than conventional enclosures!

### dbGuard



The Testforce dbGuard™ Series RF Shielding Test Enclosures allow you to conduct high quality RF level testing while maximizing your test equipment investment. These advanced RF shielding test enclosures provide the performance and durability you require. Whether in manufacturing, R&D, engineering, or service, the dbGuard's interchangeable test cartridges provide the versatility necessary for all departments and applications.

Offering an ergonomic single bar, easy latch system the Testforce dbGuard features a spacious interior well suited for testing large objects, or multiple devices at one time while internally mounted antennas allow for Tx/Rx testing.

### FixSure



The FixSure Series offers the most flexible and adaptable functional test fixture design. Customizable for any application, including a variety of interfaces (Genrad, VPC, discreet connectors), these units bring a modern approach to functional testing.

With a small footprint, these portable fixtures are ideal for functional testing, interfacing to an ATE system, burn-in, or as standalone functional testers. The FixSure Series can be manufactured with multiple wells as well as top and bottom side probing to increase production throughput and test coverage.

### PowerGrid



The PowerGrid allows you to specify a custom configuration featuring DC power supplies, static loads, and power distribution. Depending on your application, many combinations are available ranging in size from 1U to 5U.

For higher voltage, modules can be interconnected in series and can also be paralleled to increase current capability or provide redundancy. You can select from switching modules with fixed or adjustable outputs, or linear series modules for analog programmable applications.

### Infinerpath<sup>RF</sup>



The Infinerpath<sup>RF</sup> combines functional test capabilities including RF performance, firmware validation, and characterization with simultaneous communication between multiple devices.

It can support infinite configurations (1 to n, n to 1, n to n) which means you can simultaneously perform RF tests while loading software applications to devices. Able to support all RF standards including GSM, CDMA, UMTS, Bluetooth, ZigBee, WiLAN, WiMAX, and LTE the Infinerpath<sup>RF</sup> is controlled by using the supplied GUI or by a separate application such as LabView.

**DVTEST Inc.**

2-1795 Ironstone Manor  
Pickering ON L1W 3W9 Canada

**Tel: 647-726-0058**

**info@dvtest.com**

**www.dvtest.com**

ISO 9001:2008 CERTIFIED