# dbSAFE TSE 2.0 Set Isolation. Better Results.



## Next Gen, High-Quality 100db RF Test Enclosure with Thermal Capability

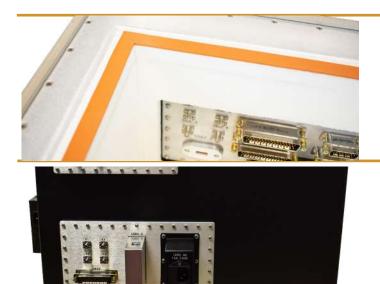
Used in the industry for over 10 years, the NEW TSE 2.0 utilizes proven double wall dbSAFE architecture to provide one of the best RF environments on the market.

New and improved waveguide Air Inlets and Exhausts eliminate thermal response on the exterior of the unit and a larger inner to outer wall dimensions allows for more insulation opening up even more extreme temperature possibilities.

dbSAFE TSE 2.0 units now include an internal polymethacrylimide (PMI) based structural foam inner wall, covering a 0.5" broadband lossy foam RF absorber lining – no longer do you have to accept internal reflections for temperature testing!

Incorporating the thermal isolation characteristics of the DVTEST Fixtreme series of moisture free thermal test environments, when paired with a temperature forcing unit, the system is capable of RF shielded testing at extremes of - 80 to +180°C\*. Air inlets and exhausts feature DVTEST's Waveguide Technology, ensuring no isolation loss at air apertures. A frostfree adapter on the exhaust port ensures zero moisture build up and dual offset IO panels maintain isolation between the inner and outer RF shields. Custom sizes, air distribution, and internal fixtures are available.





## Specifications for dbSAFE TSE

| Isolation           |  |                                |
|---------------------|--|--------------------------------|
| Effectiveness* (dB) | 300 MHz - 3 GHz<br>3 GHz - 6 GHz<br>6 GHz - 18 GHz | ≥ 100 dB<br>≥ 90 dB<br>≥ 80 dB |

\*Isolation measurements taken adjacent to each seam.

| Construction      |                                       |
|-------------------|---------------------------------------|
| Chassis Type      | Double Wall Welded Aluminum           |
| Surface Treatment | Tri-Shield coated to<br>MIL-DTL-5541F |
| Door Style        | Front Load or Top Load                |
| RF Gasket         | Braid Over Foam                       |
| Absorber          | Broadband Lossy Foam Absorber         |

| Mechanical          |                                 |  |
|---------------------|---------------------------------|--|
| Insulation Type     | Minimum 1" Silco-Soft™          |  |
| Input Fitting       | Swaglok™ quick connect fitting  |  |
| Temperature Sensing | QTY 2 T or K type Thermocouples |  |
| Temperature Range   | - 80°C to +180°C*               |  |
|                     | Extended range available        |  |

#### Head Office:

2-1795 Ironstone Manor Pickering, ON L1W 3W9 US Sales Office: 4552 Sunbelt Dr. Addison, TX 75001-5131

Phone: 1 (647) 726 0058 Email: info@dvtest.com www.dvtest.com © 2024 DVTEST Inc. All Rights Reserved

### PMI Foam

Polymethacrylimide foam, is a lightweight, rigid material with excellent thermal and mechanical properties. PMI foam's low dielectric constant allows RF signals to pass through with minimal interference, while its low loss tangent ensures minimal energy loss during transmission. In thermal applications, it serves as effective rigid insulation.

## **Choice of Preconfigured I/O Panels**

dbSAFE TSE features dual offset I/O panels. Choose form our large selection of preconfigured I/O panels. All interfaces are filtered to maintain signal integrity, minimize interference from entering and exiting the test enclosure.

All I/O panels are user interchangeable in the field via an optional torque screwdriver.

| I/O Panel Options |  |  |
|-------------------|--|--|
| RF Connectors     | SMA, N Type, BNC, TNC  |  |
| I/O Data Modules  | USB 2.0/3.0/3.1*, 1 & 10 GigE+PoE,<br>HDMI 1.4/2.0 , Audio 3.5 mm<br>*USB single, dual, quad and high density<br>port versions available             |  |
| I/O Connectors    | D-Sub DB-9, DB-15, DB-25, DB-37<br>50V/5A Per Pin  |  |
| AC Power          | TYPE A - 120V AC Module<br>(IEC-320 to NEMA 5R)<br>TYPE F - 230V AC Module<br>(IEC-320 to Schuko)<br>TYPE G - 230V AC Module<br>(IEC-320 to BS 1363) |  |
| DC Power          | DC - 100V/20A Module<br>(+ terminals)  |  |