

dbSAFE TSE



RF Testing at Temperature has Never Been so Easy

The dbSAFE TSE is a high performance 100db RF Test Enclosure designed for extreme temperature testing. The TSE utilizes proven double wall dbSAFE architecture to provide one of the best RF environments on the market. Compatible with most major temperature forcing units, the dbSAFE TSE offers exceptional thermal isolation characteristics and when paired with a temperature forcing unit the system is capable of RF shielded testing extreme temperatures of - 80°C to +180°C*.

Moisture free PTFE air inlets combined with DVTEST's proprietary waveguide technology, ensures no isolation loss while allowing free flow of the source air. Dual offset customizable IO panels offer superior RF performance and help maintain isolation between the inner and outer RF shields.

Available as dedicated thermal and hybrid models, as well as custom units, the dbSAFE TSE will meet all of your wireless testing needs, including 5G and mmwave applications. Figure 1 shows a hybrid model.



Figure 1



Broadband Absorber

Fabricated from light weight conductive carbon loaded sheet stock provides broad band absorption at micro-wave frequencies.



Choice of Preconfigured I/O Panels

dbSAFE TSE features dual offset I/O panels. Choose from 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.

Specifications for dbSAFE TSE

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

*Isolation measurements taken adjacent to each seam.

| Construction | |
|-------------------|------------------------------------|
| Chassis Type | Double Wall Welded Aluminum |
| Surface Treatment | Tri-Shield coated to 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 |

| 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, HDMI 1.4/2.0, Audio 3.5 mm *USB single, dual, quad and high density port versions available |
| I/O Connectors | D-Sub DB-9, DB-15, DB-25, DB-37 50V/5A Per Pin |
| AC Power | TYPE A - 120V AC Module (IEC-320 to NEMA 5R) TYPE F - 230V AC Module (IEC-320 to Schuko) TYPE G - 230V AC Module (IEC-320 to BS 1363) |
| DC Power | DC - 100V/20A Module (+.- terminals) |

| Dimensions W x D x H inches (mm) | |
|--|-------------------------|
| dbSAFE TSE - 099033 Internal: 16 x 10 x 7 External: 19.5 x 13.5 x 10.5 | |
| dbSAFE TSE Dual Cavity - 288004 Internal: 16/16 x 14/14 x 6/7 External: 19 x 19.75 x 19 | |
| Custom sizes available | |
| Warranty | 2 Year, parts and labor |

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