



DVTEST and MPI Thermal Partner to Provide RF Thermal Test Solutions

DVTEST's new partnership with MPI Thermal presents a next generation thermal RF test solution. Pairing the evolutionary ThermalAir localized temperature air stream system with an advanced shielded enclosure, offers a precise test environment over a broad range of temperatures.

ThermalAir series of temperature test systems from MPI Thermal brings precise thermal capability directly to the test application. In the engineering lab or on the production test floor, the ThermalAir temperature test systems provide flexible test solutions for an array of products and technologies.

The dbSAFE TSE (Thermal Shielded Enclosures) series from DVTEST are fully compatible with all ThermalAir systems. Utilizing double walled shielding, waveguide air entry technology and advanced RF materials, the dbSAFE TSE ensures isolation performance will not be impacted over a wide range of operating temperatures. Dual cavity TSE models allow shielding of peripheral measurement equipment without exposing it to temperature extremes.

For larger sized RF test environments, DVTEST now offers "micro thermal" environments. Ensuring that the temperature stays focused on your UUT and not the associated test equipment keeping items such as antennas, positioners, and cabling at a stable temperature for more accurate results.

According to Tony Tirelli, VP of DVTEST, "Our close partnership with MPI has allowed us to advance our technology to suit the emerging needs of the industry." He goes on to explain, "We have been building RF and Thermal enclosures for years, it is fitting that we merge the two technologies together."



dbSAFE TSE



MPI Thermal TA5000B



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 Structure
Surface Treatment	Tri-Shield coated to MIL-DTL-5541F
Door Style	Front
RF Gasket	Dual Layer Braid Over Foam
Absorber	Broadband Lossy Foam Absorber

I/O Panel Options	
RF Connectors	SMA, SMB, UHF, 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, 15, 25, 37 50V/5A Per Pin
AC Power	TYPE A - 120V AC Module (IEC-320 to NEMA 5R) TYPE F - 250V AC Module (IEC-320 to Schuko) TYPE G - 230V AC Module (IEC-320 to BS 1363)
DC Power	DC - 100V/15A Module (+/- terminals)

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Performance and Airflow Capacity	
Temperature Range	-80 °C to +225 °C
Temperature Transition Rate	-55 °C to +125 °C < 10 sec
Temperature Accuracy	± 1.0 °C
Temperature Resolution	± 1.0 °C
Temperature Air Output	4 to 25 SCFM (1.9 to 11.8 l/s) Continuous
Temperature Control Methods	Environmental Internal Air TC and Remote External Type T, K, RDT (TC Sensors)

Facility Requirements/Compressed Air	
Power	185-250VAC (220 Nominal), 60/50Hz, 30amp, 1 phase
Clean, Dry Air (CDA)	Filtered to 5µ particulate contamination Oil Content: < 0.10 ppm by weight and filtered to 0.01µ oil contaminants
Input Air Dewpoint	+10°C or dryer@90PSI (6.2 BAR)
Input Air Pressure	90 to 120 PSIG (6.2 to 8.3 BAR)
Input Air Flow	15 to 30 SCFM (7.2 to 14.3 l/s) 25 SCFM nominal
Input Air Temperature	+15° to +25°C, +22°C nominal
Operating Temperature Environment	+15° to +28°C, +23°C nominal
Operating Humidity	0 to 60% RH, 45% nominal

Please contact your local DVTEST rep for more information, additional options, and unique design application ideas. Specifications are subject to change without notice.