

**Worldwide Sales & Service Network**



[mpi-corporation.com](http://mpi-corporation.com) | [mpi-thermal.com](http://mpi-thermal.com)

No. 155 Chung-Ho St. Chu-Pei, Hsinchu, Taiwan  
+886 3 555 1771  
[info@mpi-thermal.com](mailto:info@mpi-thermal.com)



## Bringing Temperature To Your Test!

The ThermalAir TA-Series of Localized Temperature Air Stream Systems simulate precise environmental temperatures in product development and manufacturing test of Semiconductor, Aerospace, Automotive, Sensors, Fiber Optic, Microwave RF, Hybrids, MCMs, PCBs or any type of Electronic / Non-Electronic Parts and Other Test Articles.

### Productivity

One touch Temp Cycle,  
Ramp, Soak and Dwell

### Flexibility

Plug-in anywhere from  
185~250VAC, 1Ø, 50&60Hz

### Efficiency

Smart DC inverter for up to  
50% energy saving

### Technology

Super Quiet  
Extremely low audible noise  
DC System for engineering lab  
Quiet environment

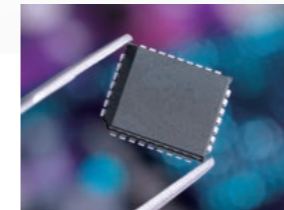


-100°C ... +300°C

**Temperature Inducing**  
**Thermal Cycling**  
**Temperature Conditioning**  
**Thermal Stress**

## Industries & Applications

MPI Thermal temperature inducing equipment brings a localized precise hot and cold dry air stream to the test for many industry application business segments. ThermalAir systems are portable and can easily be moved from one test station to another. Component manufacturers and product design engineers can use our ThermalAir TA-Series temperature systems to quickly bring test articles to temperature right at the test location.



Semiconductor



Automotive



Aerospace/Defense



Electronic Test



Fiber Optics



Advanced Technology



Telecommunications



Sensors

The ThermalAir Series Localized Temperature Test Systems are used for Temperature cycling, Thermal Profiling, Temperature characterization and other environmental temperature conditioning test methods. This is why MPI Thermal systems are part of the manufacturing temperature test processes.

## More Applications:

Dynamic Cooling & Heating Test Articles  
Temperature Cycle Testing  
Product Engineering  
Back-End Final Test  
Incoming Inspection  
IC Handler Verification  
Functional Test  
Failure Analysis Testing  
Environmental Stress Screening



TA-5000A Characteristics

139.7cm (55in.)

114.2cm (45in.)

57.5cm (22.6in.)

5.2cm (6in.)

**Main GUI**

**Versatile Head Adjustments**

**Arm & Locking Stand**

- Easy Hand Level Locks
- 360° Rotation

**Thermal Head Touch Display**

- Setpoint
- Article Selection
- Air Temperature

**On/Off Button**

- -80°C to +225°C
- ThermalAir Chiller
- Built-in Air Dryer
- DC Invertor






- Touch Pad/ Button
- Head Up/ Down
- Electronic Stand Up/ Down

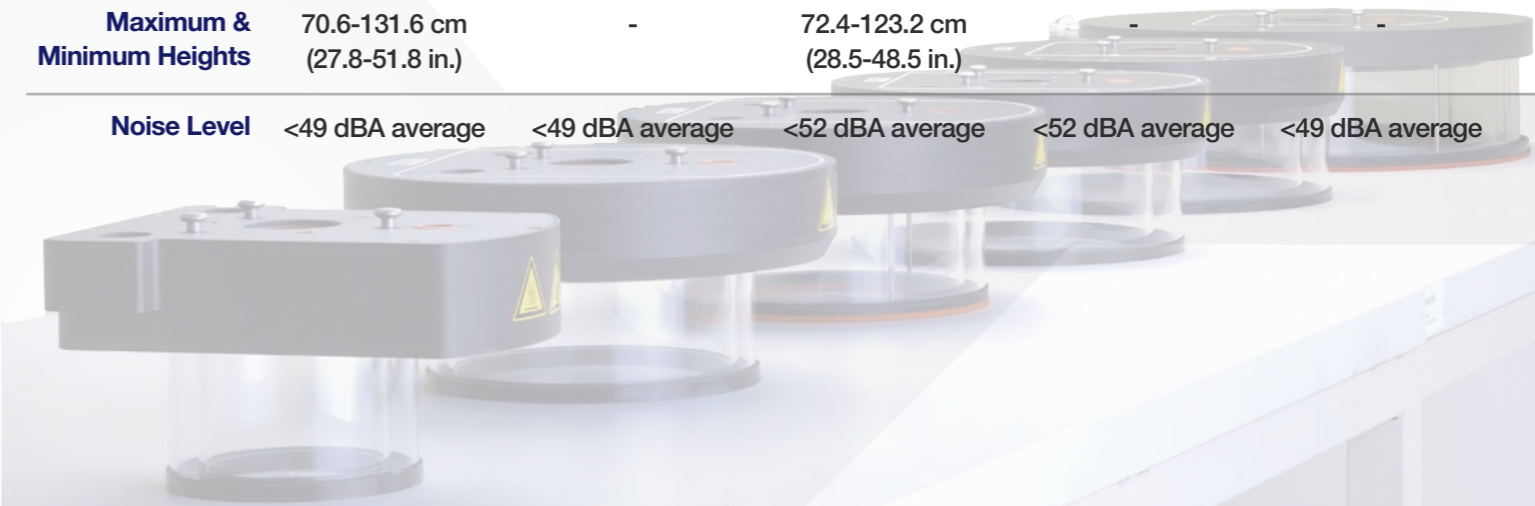


ThermalAir Series / Temperature Testing System

The ThermalAir Series of Temperature Systems have advanced capabilities to bring precise localized hot and cold temperature to the test article where environmental simulation is required.

We also design and manufacture ultra-cold chillers, compact chambers, thermal end effectors and temperature inducing accessories.

					
Model	TA-5000A	TA-5000B	TA-3000A	TA-1000A	TC-100 Gas Chiller
Temperature Range	-80°C to +225°C	-80°C to +225°C	-65°C to +225°C	-25°C to +200°C	-80°C Continuous
Temperature Air Output System	4 to 25 SCFM Continuous	4 to 25 SCFM Continuous	4 to 16 SCFM Continuous	4 to 12 SCFM Continuous	4 to 27 SCFM Continuous
Power	220 V 60 / 50 Hz 30 / 20 amp,1 phase	220V 60 / 50 Hz 30 / 20 amp,1 phase	220V 60 / 50 Hz 20 amp,1 phase	220V 60 / 50 Hz 16 amp,1 phase	220V 60 / 50 Hz 20 amp,1 phase
Dimension (WxDxH)	57.5x92.8x136.3 cm	57.5x92.8x136.3 cm	50.8x79.4x140.0 cm	43.0x63.1x38.3 cm	57.2x84.0x107.7 cm
Unpacked Weight	265 kg (584 lbs)	265 kg (584 lbs)	230 kg (506 lbs)	64 kg (141 lbs)	200 kg (441 lbs)
Packed Weight	395 kg (870 lbs)	395 kg (870 lbs)	310 kg (683 lbs)	156 kg (344 lbs)	280 kg (617 lbs)
Portability	4 swivel casters	4 swivel casters	4 swivel casters	4 Lifting Handles Benchtop	4 swivel casters
Maximum Reach	139.7 cm (55.0 in.)	Compatible with 2 - 6 ft. flex hose	139.7 cm (55.0 in.)	80.0cm (31.5in.) w/ 6ft. output gas hose	Compatible with 2 - 6 ft. flex hose
Maximum & Minimum Heights	70.6-131.6 cm (27.8-51.8 in.)	-	72.4-123.2 cm (28.5-48.5 in.)	-	-
Noise Level	<49 dBA average	<49 dBA average	<52 dBA average	<52 dBA average	<49 dBA average



# Small Environmental Test Chambers

Compact BenchTop Environmental Test Chambers Providing Temperature Test for Different Types of Applications



**-60°C ... +200°C**  
**Clamshell Style Compact Chamber**



**-80°C to +225°C**



**-60°C ... +200°C**  
**Hood Style Compact Chamber**



**-80°C to +225°C**

# Thermal Glass Cap Enclosures & Thermal End Effectors

Whether you're testing semiconductor devices, sensors, fiber optics, microwave RF hybrids, or any type of parts or test articles, we can connect to your test setup in a variety of ways to bring temperature capabilities directly to your test bench top or test station.

**Thermal Glass Cap**



**Thermal i-Purge Adapter**



# ThermalAir Accessories

The ThermalAir Systems have a wide range of standard and custom designed compact temperature chambers, thermal glass cap enclosures and other accessories that are attached to the ThermalAir Stream Head and Flex Extender Gas Hose located at the end of ThermalAir System Head output gas nozzles.

We offer an array of intuitive full function adapters to give the ThermalAir Stream users with the flexibility to accurately test in a variety of ways at the thermal test workstation.

- Quick and Easy Interface
- No Tools Required
- Interchangeable For Testing Flexibility



**Double Pane Hi-Temp Thermal Glass Cap Enclosures**  
For protection from moisture condensation and frost at the DUT site.



**Conductive & Non-Conductive Shroud Kit**



**Thermal Gas Transfer Flex Extender Hose**  
Attaches to system base to extend the reach of the ThermalAir System.  
2ft. - 6ft. Length



**Hi-Temp Silicon +300°C Insulation Foam Rubber**



**Air Distribution Manifolds with Rectangle Glass Cap**