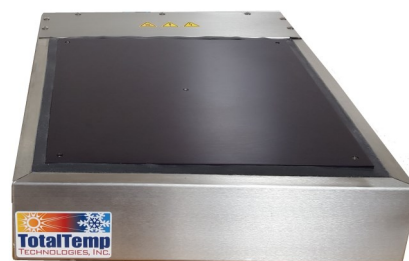




PRODUCT DATA SHEET

SD144



THERMAL PLATFORM USED FOR PRECISION TEMPERATURE TEST

DESCRIPTION

The SD144 is a standard size testing surface. Most popular Thermal Platform used for RF/MW test and research. Customers also use Thermal Platforms for testing high power items such as TWTs and amplifiers with microwave integrated circuits or multiple Hybrid / MMICs.

PRODUCT INFORMATION

Surface Dimensions / Area	12 x 12 inch (30.5 x 30.5 cm)	144 Sq. Inches (929 Sq.cm)
Surface/ Finish	Aluminum Qty (5) 10-32 reinforced Threaded Holes in surface for Adapter Plate, DUT mounting & clamping	Black Anodize or custom specification
External Dimensions	17.6 x 14.3 x 3.9 Inch	44.7 x 36.3 x 9.9 Centimeter
Chassis Material / Finish	304 Stainless Steel 18 Gauge	None
Approximate Weight	27.5 lbs. (12.4 kg)	Not Packed
Temperature Range	-148°F to 392°F (-100 to +200°C)	Extended Range and Hot Only available
Heating Rate	15°C/Min @120 VAC 15 Amp 1600 Watts	Voltage & Wattage can be specified
Cooling Rate	25°C/Min Using 35 psi Liquid Nitrogen	Coolant can be specified
Controller (Two Choices)	Synergy Nano Color Touchscreen	Watlow PM6 Economy Model

FACILITY REQUIREMENT

Power requirements may vary. Most common heater arrangement requires a dedicated 120 Volt 15 Amp circuit.

Coolant: High Pressure L-N₂ 75-125 psi is the standard coolant supplied using Dewars. Low Pressure L-N₂ is available upon request.

L-CO₂ 300 psi or 900 psi is available upon request. Recommended for infrequent cooling requirements as low as -60°C.

For information on models that are cooled using mechanical refrigeration please consult the factory.

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Controller Options and Accessories

The (a) Synergy Nano temperature controller has a Color LCD touch screen Easy to use, with on-screen graphing capability, logging, multi sensor, multi conditional outputs, very descriptive menus, GPIB optional and free drivers. [More on the Synergy Nano.](#)



(b) Watlow PM6 is a very robust, economical controller

Dry Nitrogen Purge

Purge systems keeps condensation and frost from accumulating on the surfaces of the DUT (Device Under Test) at cold temperatures. Purging is also used to prevent oxidation of metals surfaces at high temperatures.

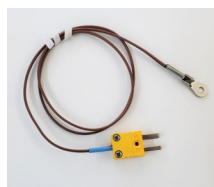
Simple needle valve flowmeter



**Dry Nitrogen
Purge Regulator
with Flowmeter**

Device Under Test Temperature Sensors

Preferred 3 wire RTD or thermocouple sensor to read device temperature or deploy two probe advanced temperature control algorithm. Convenient terminal block or in-line connector to attach second probe.



Device Sensors & Connectors



Coolant Delivery Hoses & Exhaust

Liquid Nitrogen and Liquid Carbon Dioxide require different hose configurations. We offer many options for L-N₂ & L-CO₂ applications. Exhaust options the Super Quiet Muffler and flexible hoses for venting are also available.



14-0010 Super Quiet Muffler (SQM)

Greatly reduces the noise level of coolant being spent by a Thermal Platform.

Temperature Logger

Multiple Thermocouple Sensors are available for extended datapoint monitoring using a Synergy Nano Controller see (a) above.



28-00101 Data logger

16-Channel Temperature Monitor Thermocouples, daisy chain up to four of these 16-Channel monitors together and acquire 64 temperatures.

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