## **TEMPERATURE & VELOCITY MEASUREMENT**



# HFC-100<sup>TM</sup> HEAT FLUX CONTROLLER



The Heat Flux Controller<sup>™</sup> is a high heat flux chip simulator capable of measuring and controlling the amount of heat in a resistive element. The HFC-100<sup>™</sup> comes with a chip simulator capable of dissipating 1k /cm<sup>2</sup>. The design of the heater block insures minimal heat loss to the ambient, hence a more accurate thermal resistance determination of either heat sinks or cold plates.

This system features ATS proprietary fluxSTAGE<sup>™</sup>, a LabView<sup>™</sup> application, which automates the use of the system and allows the user to choose multiple heat loads at a specific dwell time. The program calculates the thermal resistance of the cold plate for desired cooling of the die and measures the simulated junctions temperature.



Illustration of the HFC-100 Heat Flux Controller with simulated chip capable of dissapating 1 kW of heat over 1 cm<sup>2</sup>.

**OVERALL DIMENSIONS (L X W X H)** 55.9 cm x 42.5 cm x 8.8 cm (22" x 16.7" x 3.5")

OUTPUT POWER Up to 1 kW

OUTPUT VOLTAGE Up to 40 VDC

INPUT POWER 115 VAC

PC CONNECTION USB

SOFTWARE fluxSTAGE™

# For further technical information, please contact Advanced Thermal Solutions, Inc. at 1-781-769-2800 or www.qats.com

## FEATURES:

### » Automated Calculation

Automatically calculates the total thermal resistance of heat sink, cold plate or ot cooling device

High Heat Flux Chip Simulator Simulated chip is capable of dissapating 1 kW of over 1 cm<sup>2</sup>

#### » Versatile Measurement

Capable of transient steady state and transient measurements

#### » Up to 8 Sensors

Can accomodate up to eight thermocouple sensors for precise temperature measurement

#### » Dynamic Control

Features dynamic control of the simulated chip's power dissapation

#### » Dynamic Measurement

Dynamically measures the resistance of the heating element for accurate dissapation calculation

#### » fluxSTAGE™ Software

Features ATS' fluxSTAGE<sup>™</sup> application which automates the use of the system and allows the user to choose multiple heat loads at a specific dwell time

#### » Automatic Shut-off

Automaticall shuts if the heater temperature rises above the user defined protocol



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Advanced Thermal Solutions: <u>HFC-100</u>