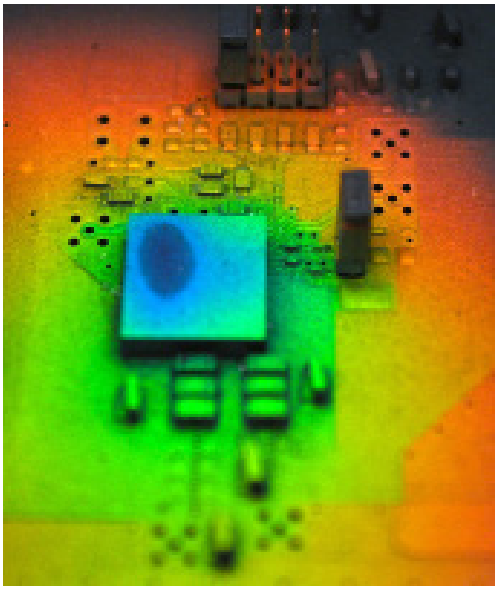
# TLC-100-DIST™

## THERMOCHROMIC LIQUID CRYSTAL KIT

The TLC-100-DIST™ is a Thermochromic Liquid Crystal Kit designed for heat transfer studies and mapping temperature fields on electronic components or boards. The TLC-100-DIST™ features thermochromic liquid crystals (TLCs) which change color at a specified temperature starting at red, changing to green then blue. For electronics cooling applications, this provides the user accurate information about the location of hot spots on a device, their temperature and temperature gradient.



The temperature map of the component is shown after being sprayed with liquid crystals.

To map the temperature profile of a component or board, black ink is airbrushed on to the specimen. Then, TLCs with a particular temperature range (depending on the application), are sprayed onto the measurement surface. Once the device is turned on and the components are brought to activation temperature, the liquid crystals will begin turning red, then into different colors, representing the temperature distribution of the component or board. Black ink and TLCs are non-destructive and wash off with the aid of soap and water.

The TLC-100-DIST™ kit comes with two TLC temperature ranges - 40°C to 60°C and 80°C to 90°C. More temperature ranges are available from ATS by visiting www.qats.com. The kit comes with everything needed for thermal mapping, with the exception of a compressed gas source. The airbrush can be used with an air compressor or an airbrush propellant product (Passche N-12 Pressure Can or equivalent).

### ATS SURFACE THERMOGRAPHY SYSTEMS FOR TEMPERATURE MAPPING STUDIES



tvLYT™



thermVIEW™



ethermVIEW™

For further technical information, contact Advanced Thermal Solutions, Inc. at 781-769-2800 or ats-hq@qats.com.

### FEATURES:

- **Comprehensive Kit**
  Everything required for thermal mapping, right out of the box (does not include compressed gas)
- **Two Temperature Ranges**
  Comes with TLC #5 (40°C to 60°C) and TLC #12 (80°C to 90°C)
- **Versatile**
  Can be used for measurements at both the component and board-level

### APPLICATIONS:

- **Heat Mapping Studies**
- **Component Temperature Testing**
- **PCB Testing**
- **Hot Spot & Defect Identification**



TLC-100-DIST Kit

### KIT COMPONENTS:

An airbrush for coating the component or board's surface with black backing ink and liquid crystals.

Air hose with couplings, valve for propellant cans and a 1/4" pipe adapter for use with an air compressor

Two 30 ml bottles of Thermochromic Liquid Crystals (TLC #5 and TLC #12).

One 30 ml bottle of sprayable black backing ink for pre-treating the surface to be studied.

Two glass jars, which attach to the airbrush, for dispensing ink and liquid crystals.