



Periodic Automatic Profiling for Reflow and Curing Ovens



KIC Vision² Advantages

- Automate manual profiling tasks
- Reduce production costs
- Less production down time
- Reduce human mistakes
- Consistent, accurate profiling data
- Uncomplicated operations
- Low cost system

Automatic Periodic Profiling System

Eliminate manual periodic profiling

- KIC Vision²™ utilizes temperature and speed sensors embedded in the oven for consistent and accurate profile measurements of the processed PCB

Programming and Frequencies

- A single manual profile run with a KIC profiler will program the system
- Profiling frequencies from every hour to every 24 hours in one hour intervals

Automation

- The system can accurately calculate the PCB profile based on conveyor speed and temperature readings along the board track due to the correlation made during the programming run on the same PCB
- The calculated profile is instantly checked against the established process window to determine whether the oven is still producing in-spec products
- Reduce human error
- Improve production uptime by eliminating manual periodic profiling that interrupts production
- Reduce production costs
 - ◆ Less labor
 - ◆ Less downtime
 - ◆ Less scrap and rework
 - ◆ No sacrificial PCBs
 - ◆ Less consumable costs such as profilers, TCs, batteries and more
 - ◆ Faster yield troubleshooting

Improve product quality

- Acquire consistent profile data
- Increase frequency of profiling with no increase in cost
- Achieve higher level of thermal process confidence

Easy to use

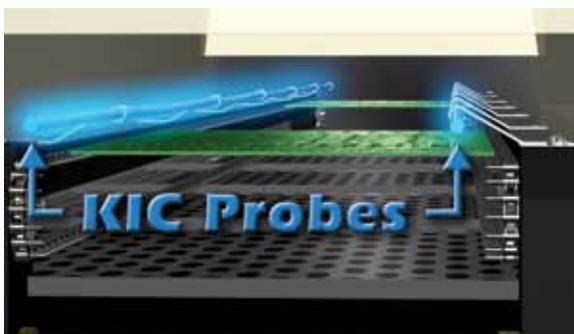
- Modern, step-by-step graphical interface navigates operator through easy setup
- New users can easily be trained on the system
- Runs silently in the background and does not interrupt production unless an out of spec PCB is detected

A low cost system

- The KIC Vision² is priced similarly to a good profiler
- Low cost does not mean low quality. The accuracy and reliability of the KIC Vision² is identical to all of KIC's automatic profiling systems
- The KIC Vision² offers great value, while eliminating unproductive and costly manual periodic profiling

Sophisticated optional features

- Basic SPC charting
- Automated output of data to an external system
- Alarm Relay to shut down the infeed conveyor when an out of spec profile has been detected
- Light Bar for visual status of system, including alarming
- KIC's automatic optimization software for quick oven setup



System Components

- Two (2) thermocouple probes (each probe has 15 thermocouples)
- 1 ea. data acquisition unit
- 1 ea. speed encoder
- 1 ea. board sensor
- 1 ea. KIC Vision² software with software protection dongle

Optional Hardware Components

Alarm Relay: The Alarm Relay connects to the data acquisition unit and allows the system to activate warning lights, audible alarms and/or stop the process infeed conveyor.

Light Bar: Used when system goes into 'warning' or 'alarm' state to show change in process and can make audible sound.

Data acquisition unit/Probes

Accuracy: ± 2°F (1.2°C)
 Readings/second: 13
 Thermocouples:..... Type K
 Temperature Range:.. -150°C to 450°C
 Dimensions:

Data acquisition unit (LxWxH):
 308.6mm x 173.5mm x 35.8mm

Probes: length and thermocouple spacing is customized to each oven

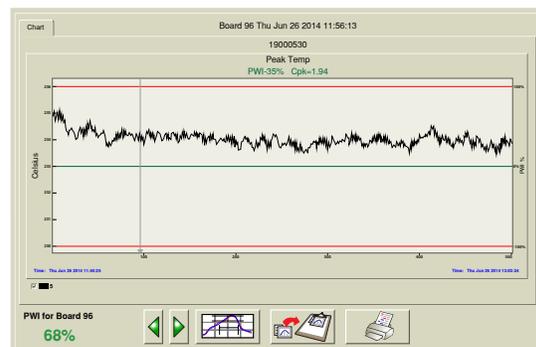
Communications: Ethernet, RJ-45 connector

Computer Capability:.. PC

Power Requirements: 12V DC @ 300mA

Note: The KIC Vision² requires a KIC profiler for programming.

SPC



- Basic SPC charting optional
- Chart all process specs such as peak temp, time above reflow, etc...
- Warning when Cpk drops below selected level

COMPUTER CONFIGURATION

Minimum System Requirements

- Dual Core / 1 GHz Processor PC with 2 GB RAM
- 2 GB available storage
- Video 1024 x 768 resolution / 16-bit
- 1 available USB port for data download
- 1 available USB port for software key
- 1 available Ethernet port or 1 available USB port with Ethernet to USB

Visit our website at <http://kicthermal.com/support-download/os-compatibility-chart> for product compatibility with Windows operating systems.

****Note:** 2 additional powered USB ports may be needed for optional accessories.



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