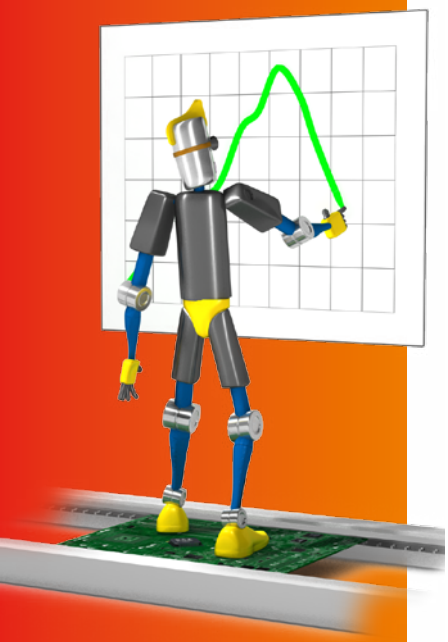
ProBot

ProBot Advantages

- Flexible
- Affordable
- Easy to Use Software
- 24 Hour Customer Support



Automatic Profiling

Automatic Profiling

The ultimate output from a reflow oven is an acceptable profile. The reflow oven is essentially a *profile machine*. The ProBot compliments the reflow oven by automatically recording the profile for each and every processed PCB. On the fly, the profile is compared to the established process window to determine whether it is in spec or not. This occurs in the background without human intervention and without interrupting production. The ProBot is programmed by running a manual profile using a KIC profiler.

Flexibility to Add Enchanced Capabilities

Because no one wants to pay for features they don't need, and because no one knows how their needs will develop over time, the ProBot is designed with a very deep list of optional features and capabilities. All of these options can be added to the ProBot from an a la carte options list, either initially or later at any time.

The profiling machine for your profile machine

OPTIMIZATION	
Navigator Optimizer	Automated solution for finding the correct recipe to put your process in spec for your product. Navigator gives you choices to customize the process for your factory requirements: highest quality, fastest production or both.
Auto-Focus (Includes Navigator)	Eliminates guessing on a new PCB's recipe. Provides suggested recipe for an in-spec profile before running a board. Saves the cost of a PCB.
Navigator Power Optimizer	Navigator software plus an added energy savings optimizer.
Auto-Focus Power (Includes Navigator)	Auto-Focus with Navigator software plus an added energy savings optimizer.
TRACEABILITY and CONTROL	
Barcode Reading Traceability	Automatically matches the barcode number with the completed profile data of every single production board recorded by the system.
Barcode Reading Process Control	Eliminate using the wrong recipe. Automatically compares the barcode of a product on the in-feed conveyor to a user defined barcode string for a particular profile recipe.
Barcode Reading - Traceability & Process Control	Package of Traceability and Process Control.
Lot ID	Production run data based on the Lot ID code.
LOCAL & REMOTE VIEWING and TRANSFER	
RPM (Remote Process Monitoring)	The output of profiling data sent to the RPM Server Software at a separate location or externally to a flat file.
RPM Server One (1 seat license)	View profile data from the KIC server at a separate location. One (1) seat license.
RPM Server Five, Ten, Unlimited (5, 10, unlimited seat license)	View profile data from the KIC server at a separate location. Multiple seat licenses.
LDO (Live Data Output)	Output of profiling data sent externally to a flat file.
Live Index Viewing	Screen displays a comprehensive summary of production quality assurance information.
SPC and MAINTENANCE	
SPC/Cpk Charts	SPC/Cpk Charts - Statistical Process Control charts and Cpk calculation.
Troubleshooting	Tab display the probe and conveyor speed deviation to aid in determining potential problem area.

Technical Support

24 Hours Every Day

Everywhere

Risk Free Guarantee

All KIC products are designed to give maximum value and fast payback by streamlining your thermal process. Investment in a KIC product is a step toward total process control and quality management. All KIC products come with a no questions asked, 30 day money back guarantee.

For more information on any of our products or service please visit us on the Web at: www.kicthermal.com or www.kic.cn.

Service Available

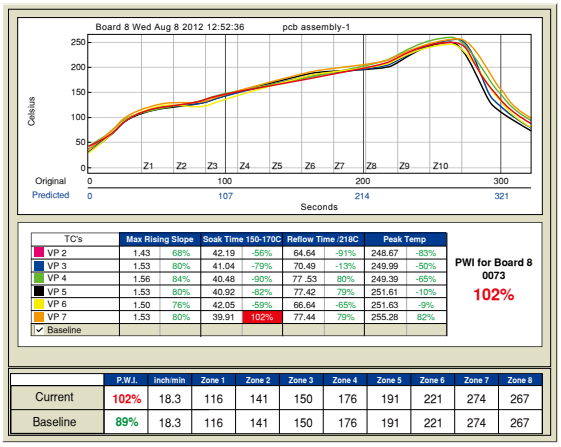
Technical Support

Installation and Setup

Application Support

Hardware Support

Guaranteed Warranty



TC's	Max Rising Slope		Soak Time 150-170C		Reflow Time /218C		Peak Temp	
VP 2	1.43	68%	42.19	-56%	64.64	-91%	248.67	-83%
VP 3	1.53	80%	41.04	-79%	70.49	-13%	249.99	-50%
VP 4	1.56	84%	40.48	-90%	77.53	80%	249.39	-65%
VP 5	1.53	80%	40.92	-82%	77.42	79%	251.61	-10%
VP 6	1.50	76%	42.05	-59%	66.64	-65%	251.63	-9%
VP 7	1.53	80%	39.91	102%	77.44	79%	255.28	82%
Baseline								

	P.W.I.	inch/min	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
Current	102%	18.3	116	141	150	176	191	221	274	267
Baseline	89%	18.3	116	141	150	176	191	221	274	267

ProBot™ History Profile

System Components

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

Optional Hardware Components

Alarm Relay: The Alarm Relay connects to the eTPU 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.

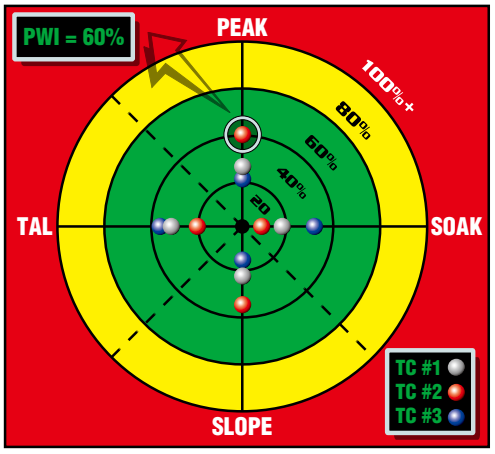
eTPU/Probes

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

Notes

The ProBot requires a KIC profiler.

The Process Window Index™



Profiling Reduced to a Single Number

The PWI measures the profile's fit to the process window in a mathematical and objective manner by using a single number. This aids in optimizing the process by comparing and ranking alternative profiles in terms of their fit to the available process window. The lower the PWI, the more efficient and stable the process! *(See the PWI data sheet for a detailed explanation)*

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
Microsoft Windows XP, Vista, or 7 (32-bit or 64-bit)

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

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Corporate Headquarters
16120 West Bernardo Drive • San Diego, CA 92127 USA
+1(858)673-6050 Phone • +1(858)673-0085 FAX
sales@kicmail.com • tech@kicmail.com

European Regional Office
europe.sales@kicmail.com • europe.tech@kicmail.com

Asian Regional Office
asia.sales@kicmail.com • asia.tech@kicmail.com

www.kicthermal.com www.kic.cn

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