

The Thermaltronics Robotic System incorporates innovative design concepts and precision components to ensure accuracy. The combination of high precision hardware and intelligent software ensures precision soldering and low operator training costs.

- Dual Arm, Six Axis Soldering Robot
- ✓ Intelligently compensates for PCBA variance
- ✓ Image Recognition & Mapping System
- Laser Height Measurement
- ✓ Uses Curie Heat Technology for precise temperature control

## **TMT-R9800S FEATURES**

- 1. Unlike typical Cartesian robots the Thermaltronics TMT-R9800S Soldering Robot, is equipped with full vision (eyes) to verify the procedure being undertaken and does not simply follow a pre-determined program. The soldering robot has an observation mode, a verification mode and decision making capabilities (brain). This capability of collecting and utilizing data for production processing is one of the most important factors necessary to meet the requirements of Industry 4.0 standards.
- 2. Through the use of servo motors and precision ballscrews, the Thermaltronics Robot system is able to accurately meet the requirements of high speed operation, repeatability and durability.
- 3. Application programming is made simple by using full image-merging and mapping techniques.
- 4. Dynamic laser height measurement/adaptive control, ensures precision soldering repeatability.
- 5. A full vision mapping and matching system, provides for intelligent decision making during procedural operations.

## **TMT-R9800S SPECIFICATIONS**

| Input Line Voltage:         | TMT-R9800PS-1                     | 100-110 VAC       |
|-----------------------------|-----------------------------------|-------------------|
|                             | TMT-R9800PS-2                     | 220-240 VAC       |
| Servo Motor Axis:           | 6 Axis                            |                   |
| Dynamic Range of Shaft:     | X-Axis                            | 200mm             |
|                             | Y-Axis                            | 200mm             |
|                             | Z1, Z2 Axis                       | 70mm              |
|                             | Rotation Axis                     | 360°              |
| Shaft Speed:                | X, Y, Z Axis                      | 0.1mm - 300mm/sec |
|                             | Rotation Axis                     | 0.1 - 450°/sec    |
| Positioning Repeatability:  | X, Y, Z Axis                      | ±0.01mm           |
|                             | Rotation Axis                     | ±0.02°            |
| Camera Resolution:          | 0.015mm                           |                   |
| Air Pressure:               | Max. 6 Bar / 87 PSI               |                   |
| Working / Vision Size:      | 200mm x 200mm                     |                   |
| Solder Wire Diameter Range: | 0.3mm - 1.6mm                     |                   |
| Controller:                 | Industrial Computer               |                   |
| Operating System:           | Windows 7 Professional            |                   |
| Soldering System:           | TMT-9000S (40 Watts RF)           |                   |
| Curie Heat Technology:      | 250°C - 500°C (382°F - 932°F)     |                   |
| Power Consumption:          | 1 KVA                             |                   |
| Size (W x H x D):           | 800mm (H) x 702mm (D) x 620mm (W) |                   |
| Weight:                     | 125 KG                            |                   |

## CERTIFICATION MARKS CE

## **PACKING LIST**

| TMT-R9800PS | Soldering Robot     |
|-------------|---------------------|
| R98-CTRL    | Industrial Computer |
| R98-COVER   | Safety Cover        |
| TMT-9000S   | Soldering System    |

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