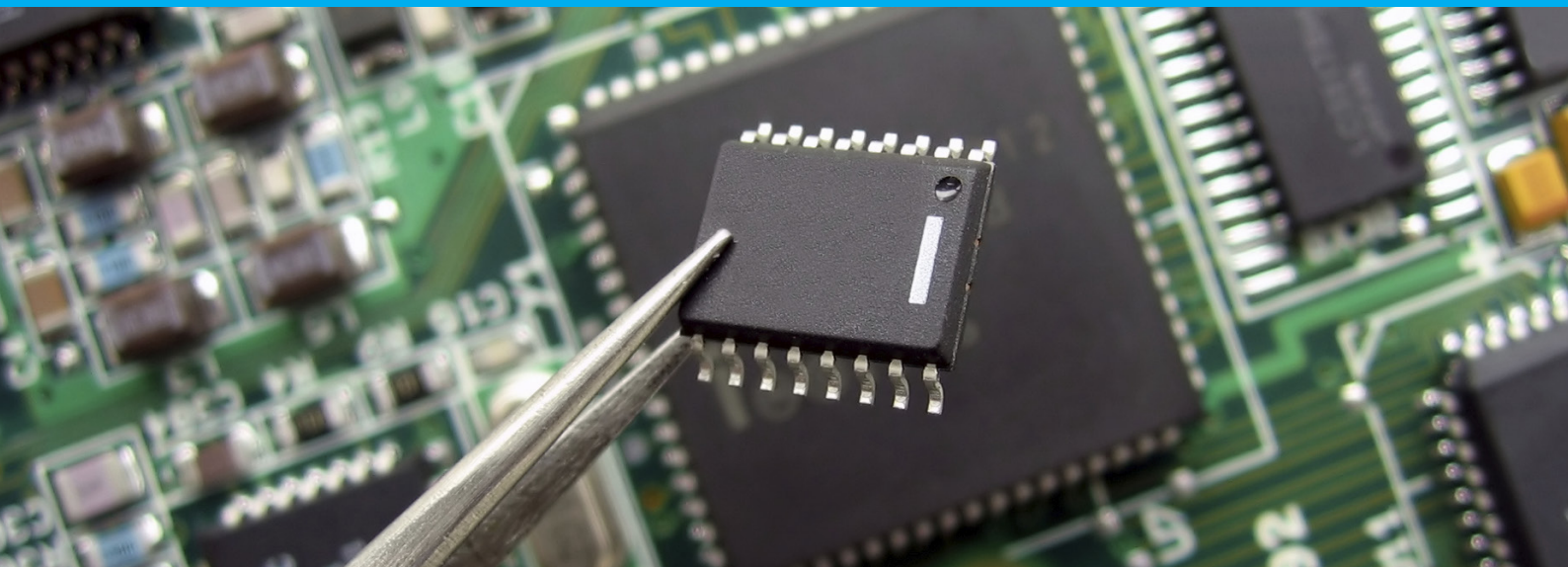




# TCM ELECTRONICS

TIME CRITICAL MANUFACTURING



## Manufacturing Capabilities

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TCM's production facilities have been purpose built to meet the needs of the OEM market it serves. Our strength is our ability to handle complex, high mix builds while offering an unparalleled level of flexibility to customers throughout the whole process. We have selected equipment and designed our system to enable us to manage many different

products simultaneously and switch quickly between them when needed. We have capacity to handle 'regular' production volumes and the accuracy in our system to consistently repeat the 'irregular', smaller production units. We also have a separate unit dedicated to the fast turnaround of prototypes. This is all underscored by our

dedication to high level IPC standards with our 'Class 2 +' being our default offering.

Coupled with our unique procurement management skills, our manufacturing division can provide board level assembly, coating and testing, full turnkey options – even specialist machining and metal fabrication in house.

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### SMT

- Single and Double sided SMT
- Max PCB size 410mm x 360mm
- Min pitch 0.2mm
- Max component height 20.0mm
- Glue dot printing/placement
- Vapor phase reflow ovens – Lead & Lead Free. Vapor phase systems provide the most superior soldering finish and eliminate any risk of damage to both pcb and component at the selected temperatures.
- Vision screen printing
- Vision placement of latest technology packages – BGA,QFN,DFN



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TIME CRITICAL MANUFACTURING

## Thru Hole Assembly

- Component Loading and Forming
- Dedicated Lead & Lead free wave soldering machines
- Printed Circuit Board de paneling
- Printed Circuit assembly Immersion cleaning process (removal of flux residues)
- Hand loading frames for proto-typing or small batch production

## Testing

- Fully functional testing capability based on customer supplied test jigs, fixtures and programs
- Firmware loading onto assembled pcb's
- All pcb's are "Bare Board Tested" ensuring quality

## Coating

- Dedicated Conformal Coat Spray Booth
- Variety of Conformal Coat options
- UV Inspection of Conformal Coating

## Inspection

- Automated Optical Inspection using SAKI BF Voyager (SMD Inspection) checks for component markings, polarity and solder joints ,the SAKI inspects to a 18um resolution
- HD Magnus magnifier X 40 magnification
- Mantis magnifier X 10 magnification
- X-RAY Inspection available if required

## Fabrication

- Our in-house metal and plastic fabrication workshop can offer a range of services and has up to date CNC lathes and mills along with a range of precision equipment.



Our staff have a broad range of qualifications including mechanical engineering; electronic engineering and electronic technician and are holders of IPC-A-610D certifications. Anti-Static procedures are strictly adhered to with anti-static flooring throughout, wrist and heel grounders used and tested and logged daily.

TCM Electronics is accredited to ISO9001:2008 – for more information on our unique quality system please refer to our separate information sheet in this data pack.

