

## A COMPONENT LEVEL PCB REPAIR FACILITY, WITH RE ENGINEERING AND R & D CAPABILITIES

### SOLUTION TO YOUR ELECTRONIC HARD WARE PROBLEMS

Kaynes Technology India Pvt Ltd is ISO 9001:2008 certified company for Design, Manufacture, Supply and Servicing of Populated Printed Circuit Boards and Other Electronic Assemblies for different applications/ Industries. The company in a short span has become the most preferred service provider to the Automotive and Process industry, Defence, Home Security and Para Military Services. The company specializes in providing Hardware Services Support in Electronic component level repairs, Re Engineering, Component and Board level Obsolescence management and design & development of new products. The Centre at CBD Belapur has over the period developed expertise in undertaking REPAIR OF PCBA UP TO COMPONENT LEVEL, without the support from either the OEM or Customer for technical information / Schematics / BOM regardless of the country of origin or the manufacturer of the parent equipment.

- A - Repair of Printed Circuit Boards up to component level in absence of any technical information.
- B - Repair of Complete Electronic Equipment as black box concept.
- C - Additions and Alterations to existing design to meet customer specific requirement or to meet any component / board level obsolescence issues.
- D - Re-engineering of Old obsolete PCB to support the equipment out of the OEM manufacturing range.
- E - Development of New Product from concept to manufacturing.

#### Infrastructure

**Space** Access Controlled, ESD safe, Dust free environment of 4500 Sq. Ft. at CBD Belapur, Navi Mumbai, Encompassing Board Room / Training cum meeting Room, Technical Repair Area, office accommodation and Spares and customer repairable inventory.

**Man Power** A Strong Team of 15 Employees including Commercial, Sourcing and 12 Technical members team lead by most experienced technical Managers with over 13 years of experience in Electronic Hardware repairs.

#### Equipment Suit






Sr. No.	Equipment Description	Equipment Specifications	Mfg. & Model
1	In Circuit Tester	Q Max V200 in circuit Tester V 200 -9696/3	Q Max
2	Functional Test Jigs for Card Level test Hardware and software Development	PCB level functional Test Jig for PS, Controller, Communication, I/O Cards.	All PCB level test jigs developed in house verified and validated
3	Calibrated General Purpose Measuring Instrument	Millimetres	Fluke Fluke - 117
4	PC Based Video microscope	Microscope and Visual image amplifier with PC based projection system installed	MKM Micro -1
5	Rework Station	Max and Weller Stations	WMD - 3
6	Soldering / De Soldering Equipment	Inde Rework Station	MFRS400 Inde
7	100 MHz Digital Oscilloscope	Oscilloscope	HP 54600B
8	EPROM Programmer	Programmer Lab Tool 48	Lab Tool 48
9	IC Tester	Out of Circuit IC testing	Kitek DICT-03
10	Exclusive R & D Facility	Microchip Platform for PIC Micro Controller, 8051 Platform, CPLD, FPGA Zylinx Platform NI Platform	NI System
11	Design and Simulation Software	Proutes, National Instrument, Power Integration, Tina from Texas Instrumentation, Codan's ORCAD	NI System
12	Computerized Record Keeping	Receipt, Issue, Inspection, Spares, Despatch, every detail entered on ERP	ERP

**Storage** An Air-conditioned, Humidity Controlled and ESD proof Storage area is marked for custody of customer owned items received for repair, customer owned Item in waiting for despatch post repairs, Spares required for repairs and consumables used in the repair process. The area is dust free and has earmarked location for each category of spares and customer units.






**Accounting** The complete accounting of the customer supplied inventory, Spare parts inventory, Consumable, Infrastructure equipment and fixed assets is being recorded and maintained on Electronic Media. The ERP system in place allows audit and easy access to the inventory held with the company at any given point of time. The ERP system allows management, procurement, technical and accounting functions thereby making it most comprehensive information system on line. The data base is across the company and allows access from remote location.

## Repair of Electronic Cards/ Units

<p><b>AC DC Drives :</b> We specialise in repair of various capacity and all types of AC/ DC drives including variable frequency drive from all type and OEM. We have successfully repaired multiple axis drives.</p>	
<p><b>PLC's :</b> We are competent in repair of complete PLC system or the individual PLC cards. We have been able to repair obsolete PLC cards that are vintage technology and have out dated components. We have in past repaired Allen Bradley, Fanuc, Rockwell &amp; Siemens PLC's.</p>	
<p><b>SMPS :</b> We not only repair and maintain the independent power supply but have an expertise in the repair of SMPS part of the major assembly and Printed Circuit Board assembly.</p>	
<p><b>Controller / Processor based cards :</b> We are undertaking repair of complex CPU and Microprocessor based boards, used in the Industrial, Automotive and Power Generation Sector.</p>	
<p><b>Power Supplies and Power Stacks :</b> We are capable of undertaking repair of 400 and 100 KW Power Stacks used in Wind Power Generation Plant and also high power inverters used in transportation system and EMU of various Manufacturers.</p>	

## Design Development and Indigenization

<p>Power supply is an important and integral part of the system, its robust and sturdy design is an important aspect of reliability of the unit. We have been instrumental in re design of Power supply for the Gas dispensation system and the logistic weight lifting equipment. We have successfully designed and developed and supplied SMPS and Conventional Linear Power Supplies.</p>	
<p>Card Level Test Jigs . We have developed expertise in development of card level test jigs based on IEEE.</p>	
<p>Customised Modules : Kaynes has developed the modules based on the black box concept keeping the end customers requirement in mind. We map the inputs available with the customer set up and based on end requirements of customer develop the modules. We can therefore provide <b>Concept – Design – Proto Type Development – validation – manufacture – Warranty and after warranty support</b> for the units developed by the customer or manufacturer.</p>	

## Re Engineering

We can reproduce the same or similar PCB Assemble by providing the services of schematic retracing – Generation of Gerber- Mfg. of Bare Board- Loading of components- Testing of PCB Assembly and final proving in the system.

Company has been successfully undertaking obsolescence management at component level where in the old and non-available component functions can be redesigned by making a piggy back board with existing latest technology components.

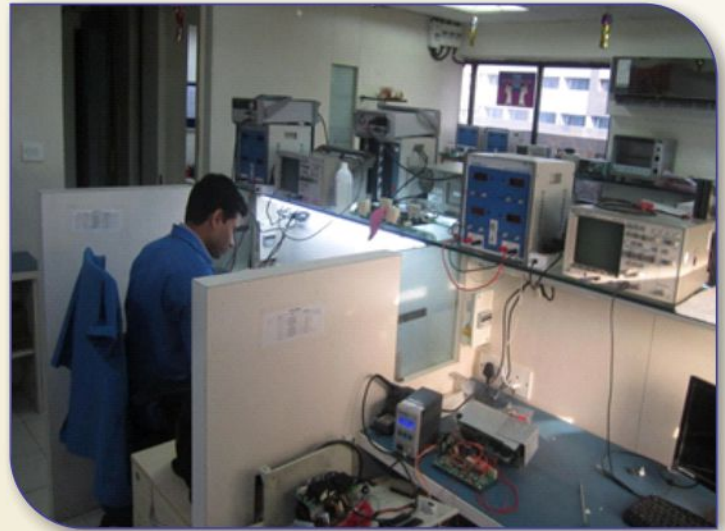


IGBT Driver Card

Controller Card

Power Supply

Signaling System Card



## **THE REPAIR TECHNOLOGY AND RANGE**

**Breaking Unit**



**Kuka Teach Pendant**



**Nachi Drive**





**Power Stack**



**Traction Converter PCB's**



**Joy Sticks**



**Rolling Stock PCB's**



**Power Supplies**



**Inverter Module's**



**Displays/ HMI's**



**Hoist Cards**



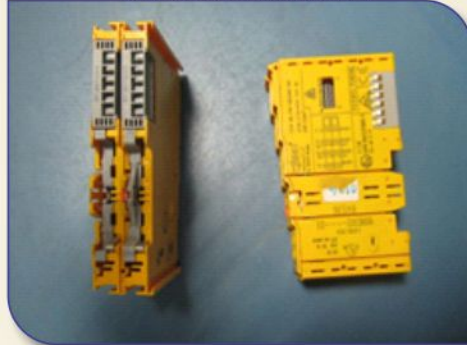
**Rail Signalling**



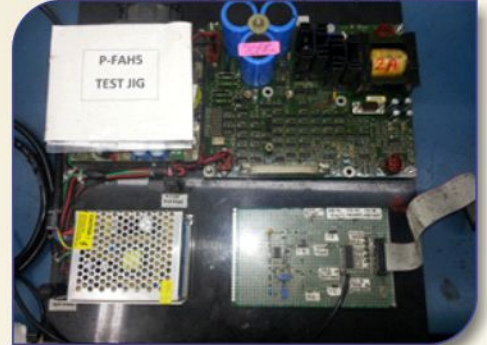
**Display**



**Interface Modules**



**Card Level Test Jigs (Developed By Kaynes)**



## CONTACT US

### For Electronic Manufacturing Services

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