

# MANAGEMENT TEAM AND OUR PRESENCE

**\*\*350+ SKILLED PROFESSIONALS**  
**200+ Clients Globally**



## FOUNDERS AND TOP MANAGEMENT TEAM

Started in 2007 by 4 passionate Electronics engineers as design services firm has evolved into company that offers end-end product design and manufacturing services.

**BANGALORE- R&D**



**PUNE- R&D**



**KRISHNAGIRI- FACTORY**



**CHENNAI- R&D**



# ZETTAONE OFFERINGS



R&D  
ENGINEERING  
SERVICE



EMBEDDED  
SYSTEM Design  
(Full Custom)  
SERVICE



**SYSTEM**  
Manufacturing  
(ODM / OEM)  
SERVICE



# EMBEDDED SYSTEM DESIGN



## **AUTOMOTIVE:**

- Body Electronics
- Motor Controller (BLDC/ PMSM)
- BMS
- VCU ECU
- Instrument Cluster.
- ADAS Camera

## **INDUSTRIAL:**

- Industrial Gateway
- Fire safety System
- Industrial IOT & Automation.
- HMI controller

## **SEMICONDUCTOR:**

- Silicon Validation Board
- Engineering Validation Board
- ATE Boards
- Reference Designs

## **NETWORK & TELECOM**

- 5G Small Cells
- Test Fixtures
- Notebook/ Tablet.
- IOT( Measure, Monitor & Control Devices)
- Cloud.

Automotive

Semiconductor

Industrial

Telecomm

Aerospace

# HARDWARE & FIRMWARE EXPERTISE



## MICROCONTROLLERS & PROCESSORS

STM32, TI MSP430, NXP i.MX Series, AT-SAM, Microchip PIC 8/16/32, ESP32, TI DRA77X, Cold fire, TI MSP, NXP LPC, TI OMAP FPGA - Xilinx, Altera Intel, Microsemi.



## PERIPHERAL'S INTERFACE

NAND Flash, NOR Flash, DDRx, RS232/RS422, Sensors (Temp, Pressure, Gas, Light, Sound etc.



## COMMUNICATION PROTOCOLS

UART, SPI, I2C, CAN, MODBUS, PCIe, USB, PCI/PCIe, SRIO, USB, I2C, LPC, SMBUS, SPI, VME



## NETWORK PROTOCOLS

Modbus TCP/RTU, UDP, TCP/IP, DHCP



## WIRELESS PROTOCOLS

Wi-Fi, Bluetooth, BLE, ZigBee



## INDUSTRY PROTOCOLS

GSM, GPS, Wired / Wi-HART, Thread, ZWave, OCF, MODBUS, Anybus



Cortex-M, OMAP, Apple S1, SoC, DSP, Digital Light Processing, RTOS, MEMS, peripherals etc.



Compact algorithms for programming Flash memories NAND & NOR



Start up and device header files for Cortex-M based Micro controllers.



Boot loaders (like U-boot & UEFI), OS Porting (Any OS like Android or Linux or any other RTOS on ARM and MIPS architectures), device drivers, firmware & Linux Kernel modifications & optimizations

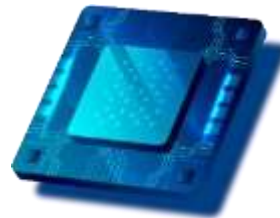


## Microcontroller Partners

- Microchip
- ST Microcontroller
- Renesas
- Freescale
- Texas Instruments
- Cypress

## Development Environment and Tools

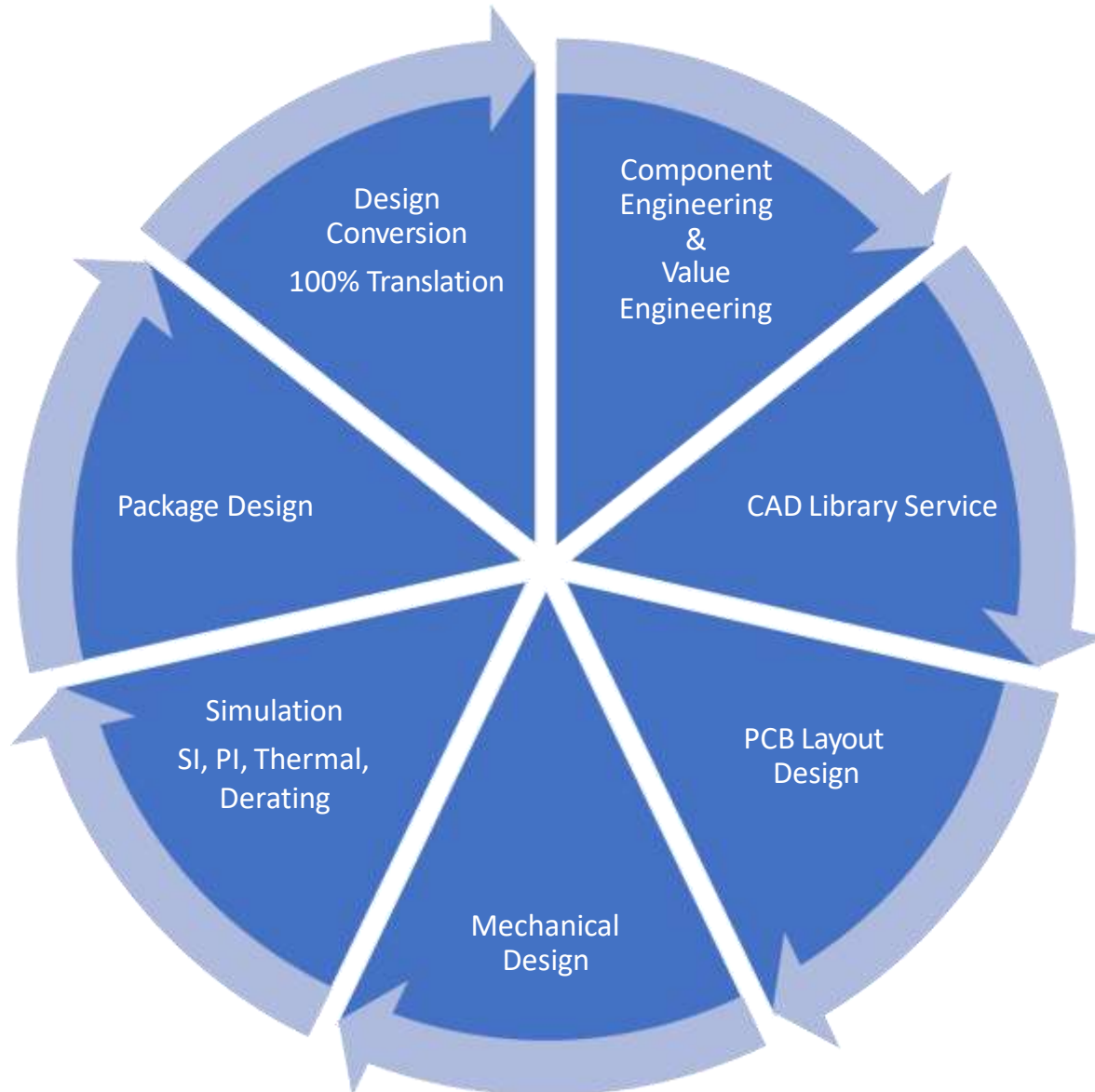
- OrCAD, Allegro, Altium,
- Mentor Graphics PADS, Expedition,
- LTSpice, Pspice, LabVIEW,
- MATLAB / Simulink,
- Hyperlynx, FloTherm etc.



## Firmware Applications:

IoT Devices | Wearables | Consumer Devices | Appliances Drives | Cell Phones Biometric Technology | Industrial Machinery | Automobiles | Surveillance | Digital Radio

# R&D ENGINEERING SERVICES



- 50+ Board designers
- 40+ Librarians
- 10K+ designs delivered
- 8M parts in the database
- Library development with 3D CAD
- Highspeed / High power designs
- Rigid/Flex/HDI designs
- Pre-Post Layout Analysis
- BOM Analysis
- 3D Plastic & Sheet Metal designs

# EDS –Design and Analysis Platform



Component & Library

PCB library expert from PCB Libraries(IPC 7351)



Schematic design

Design Entry HDL- OrCAD from Cadence  
Dx designer from Mentor Graphics  
Altium Designer from Altium



PCB & Package design

Allegro From Cadence  
Xpedition and Pads from Mentor Graphics  
Altium Designer - Altium



DFx Analysis

Valor from Mentor Graphics



SI / PI Analysis

Keysight-ADS, Sigrity from Cadence  
Hyper Lynx - from Mentor Graphics



Thermal Analysis

Icepak from Ansys, Flowtherm



Mechanical

Solid Works and AutoCAD



# System Manufacturing Service

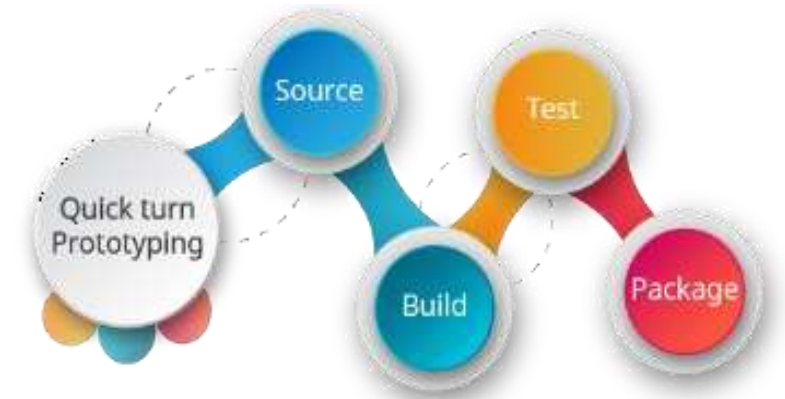
- *Low volume production ( Prototype to 5K per Month)*
- *Medium volume production ( 100K per Month)*

## *Our Manufacturing process covers:*

- *BOM/Supply chain analysis*
- *Component sourcing*
- *PCB Fabrication*
- *Enclosure manufacturing*
- *PCB assembly*
- *Cable & harnessing*
- *Box build*
- *Functional testing*
- *Packaging*



## Design, Build and Test



- **Highly complex PCBA**
- **0.2mm Pitch BGA / 01005 passives**
- **POP Memory**
- **Quick turn around**
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- **IPC Certified Engineers and Technicians**
- **IPC 610 - Class 2 & 3 standard manufacturing**

# EMS-Supply Chain Management



## Zettaone Supply chain team

Parts are procured from authorised distributors

Suppliers are on boarded after selection ,  
evaluation and qualification

We Obtain COC for the all the parts procured

Suppliers are rated and monitored on going  
process

We Work closely with customers & give  
advance forecast to suppliers to reduce lead  
times

We Support on alternate sources to reduce  
dependability on single source / EOL items

## Logistics Support

Tie up with FedEx & DHL to ensure timely delivery, Get parts cleared within 8 working days from the date of shipment

Tie up with CHA( Movemax ,Adom Logistics ) to get the goods clearance from customs in time

## Global Supply Chain Network includes

25000+ parts

250+ manufacturers

200+Suppliers,distributors & authorized stockiest

### Custom built parts

PCB suppliers

India & abroad

Short lead time

### Box build suppliers

Mechanical parts

Test fixtures

Product package



## Our Global Partners

Digikey

Mouser

Arrow Electronics

Avnet Asia

Element 14

NF Smith

Good time Electronics

LCSC

Wynn Electronics

# EMS – Capability Overview



## Facilities

- 15000 Sqft ESD dust free workspace
- Automatic Screen Printer- Dek
- 3D-Solder paste Inspection system
- Pick & Place data- MYDATA MY300LX-11 with 16000CPH & YAMAHA with 96000CPH
- M/c Capability of handling
  - 01005, 0201 , QFP, QFN BGA CSP's (Upto 0.2mm pitch)
  - BGA 0.35mm Pitch
- Reflow- JT 10 Zone +with Nitrogen ready – Pb Oven
- 3D AOI – MIRTEC MV-6e -OMNI
- X-Ray –XAVIS XSCAN 100A 2.5D
- Flying Probe Tester
- Selective soldering machine and Temperature shock tester
- 7CH-Reflow profiler- KIC
- JBC- Temperature controlled soldering stations.
- BGA Rework - Seamark ZM, JBC Rework Stations, Baking Oven
- Dry Cabinet- Storage for Humidity & temperature storage

