# TESSOLVE

## A HERO ELECTRONIX VENTURE

| VLSI DESIGN | TEST ENGINEERING | PCB ENGINEERING | EMBEDDED SYSTEMS |
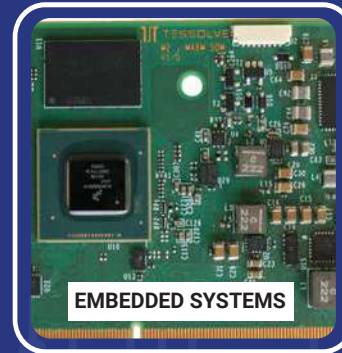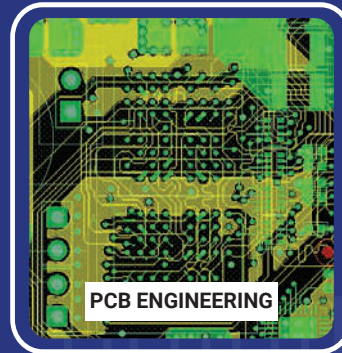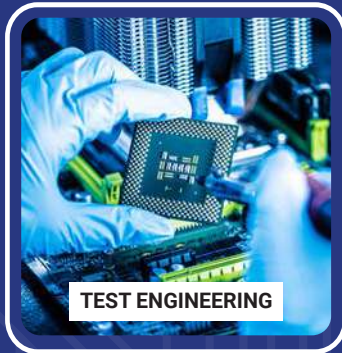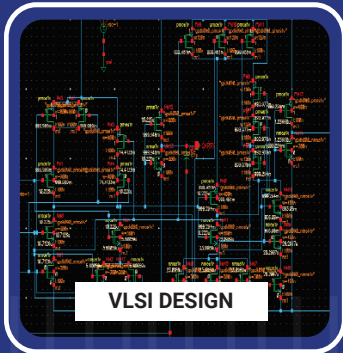
# END TO END SOLUTION PROVIDER IN SEMICONDUCTOR VALUE CHAIN

## Delivering excellence in engineering

## Key Technologies

| 5G | Artificial Intelligence | IoT | Automotive Connectivity | Silicon Photonics |

## Market Sectors
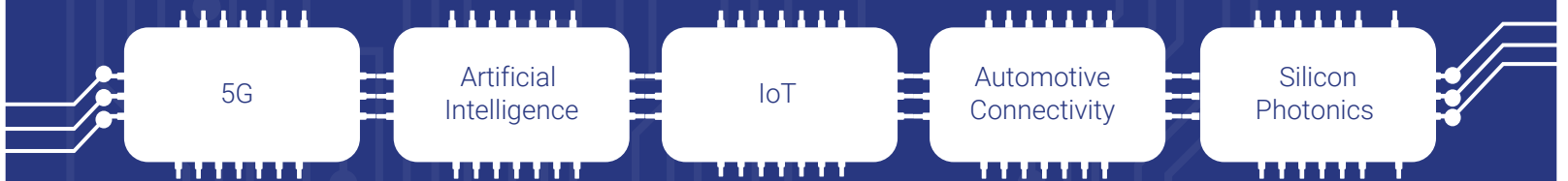
| Automotive | Avionics | Consumer Electronics | Industrial | Medical | Sensors |

## Committed To Your Success

Advanced Design    Capable Partners    Empowered Customers

## VLSI Design



▶ Rich design experience includes – Analog, Digital & Mixed signal IPs and SoC Soutions – Spec to GDSII sign-off

▶ Circuit Design, Layout Design, RTL Design, DV, DFT, PD, FPGA Emulation, Verification IPs (VIP) solution, AMS design & verification

▶ Expertise in process nodes from 0.35um down to most advanced 7nm technology

▶ Executing Turnkey Projects – Ownership from Spec to GDS to Silicon

## Test Engineering



▶ Test Strategy & Planning

▶ Test Hardware Design, Test Program Development & Characterization

▶ Test Time Reduction, Yield Optimization, Platform Conversions, and Multisite Test - solutions that enable a seamless transition from development to production

▶ Multi ATE Platforms Expertise (over 30+ ATE Platforms)

▶ State of the art Test Floor equipped with ATE testers Advantest, Teradyne, NI etc and Rack & Stack Bench Equipment

▶ Device Expertise – RF, Digital, Sensors, Mixed Signal, Analog

▶ Product Engineering - Advanced product engineering solutions – right from R&D to end of product life

## PCB Engineering & Turnkey Manufacturing



▶ Multi Platform EDA Tools (Cadence, Mentor, Altium...)

▶ Design and delivery of ATE, Systems, Burn-in Board (BIB) and Evaluation boards

▶ PCB Design HDI, Blind/Buried, Flex, RF, Metal Core/Clad, High-Speed DDRx etc.

▶ PCB Design Simulations (SI, PI, TA, LPDDR etc.)

▶ Package Design ( Wire Bond, Flip Chip, SIP, WLCP)

▶ Mechanical Engineering

▶ Inhouse PCB Fab

**TESSOLVE**

## Reliability & FA Services

- **Reliability Services**
  - ► Device Qualification
  - ► ESD, Latch up, Burn In (HTOL, ELFR), Package Qual (HAST, HTSL, TC, TCT, THB, PTC...)
- **Failure Analysis Services**
  - ► VLSI Circuit Edit using 9500 FIB (5nm beam); De-Capsulation (Cu protect jet-etch); Optical Microscopy & Measurement (Nikon lv150), X-Ray, X-Section analysis of PCB & DIE etc.

## Embedded Systems/ Products/Services

- ► End to end product development services from Custom Design to Manufacturing
- ► Linux & Android Software Development Expertise
- ► System Design expertise with Digital, Analog, Mixed Signal & RF design capabilities
- ► FPGA based system design from "RTL coding to board level Validation"
- ► High-end video, audio and connected multimedia embedded system
- ► MAGIK-2 modules based on the SMARC/Q7 standard
- ► Embedded Services: Linux /Android Device Drivers / Middleware/ Post Silicon Validation Activities

## Together With Our Solution Partners
Realizing turnkey embedded systems development.

**TEXAS INSTRUMENTS**   **Qualcomm snapdragon**   **SGeT** STANDARDIZATION GROUP FOR EMBEDDED TECHNOLOGIES   **NXP**

## An Extended Arm
Of Semiconductor And Systems Companies
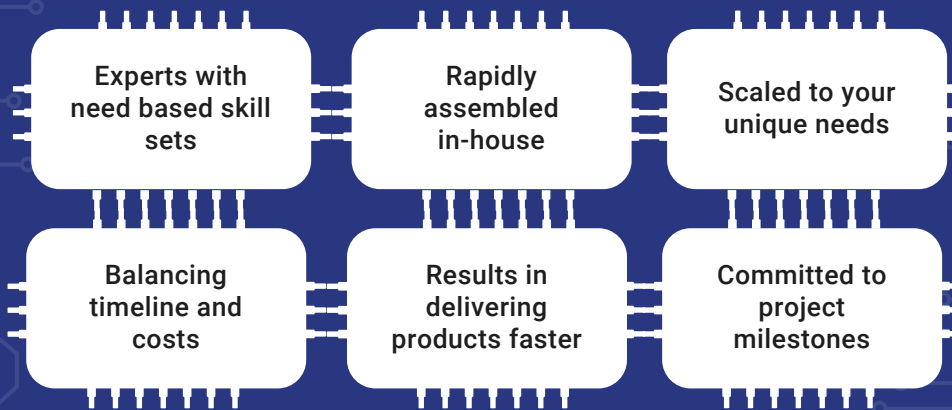
**2100+**
Expert Team

**Avg. 8+ Years**
of experience with Critical Technologies

**90%**
Technical Staff

**TESSOLVE**

# Building Your Project Team Customized To Your Needs

**Experts with need based skill sets**

**Rapidly assembled in-house**

**Scaled to your unique needs**

**Balancing timeline and costs**

**Results in delivering products faster**

**Committed to project milestones**

## Turnkey Facilities
Expertly Manned | Equipped | 24/7 Ready

ATE Test Lab

STPI SMART Lab

PCB Fab

FA & Reliability Lab

VLSI Design CoE

## The Outcome Speaks For Itself

900+ Test programs released

130 PCB designs per month

Verification IP (VIP) solution for different protocols & IPs

20+ Products Released to Market in various domain like Avionics/Automotive/ Industrial

India | USA | UK | Germany | Italy | Malaysia | Singapore
China | Japan | South Korea

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