Ensuring Silicon Superiority From Design To Packaged Parts With Turnkey Custom Silicon Development

Silicon to Product Development

- Embedded Systems
- IC Design
- Wafer Fab and Assembly Supply Chain Management
- Package Design
- ATE Test and Characterization
- System Level Validation
- Reliability
- Production Release

Tessolve is the leading engineering solution provider with 2600+ engineers worldwide and offers a unique combination of pre-silicon and post-silicon expertise. Tessolve provides a one-stop-shop solution with complete hardware and software capabilities including its advanced silicon and system testing labs.

We have integrated all our competencies to full Turnkey Custom Silicon Development service from design to packaged parts to ensure customer success. Tessolve continuously invests in its' R&D center with specific initiatives in 5G, mmWave, Silicon Photonics, High-Performance Compute, System-level Test, Automotive Products, and others. Tessolve also offers embedded solutions from concept to manufacturing under an ODM model with application expertise in Avionics, Automotive, Industrial and Medical segments.

IC Design

700+ Engs

180nm 5nm↑
Advanced Process Development

VIPs
Verification IP (VIP) solution for different Protocols & IPs

Test/Product Engineering

950+ Engs

650+
Test Programs Released

30+
Automated Test Equipment supported

Hardware Development

225+ Engs

130+
PCB Designs Per Month

60+
Experience with 60+ layers PCB design + SI + PI

Embedded Systems

250+ Engs

26+
Embedded Systems Released

50%
Over 50% employees with 10+ years' experience

CoE Technologies

ARM, RISC-V Subsystem and Analog Block Development
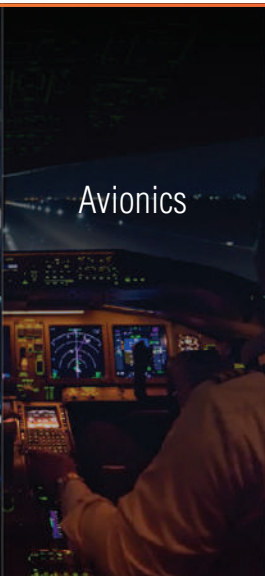
5G and High Frequency RF Solutions

High Performance Compute Solution

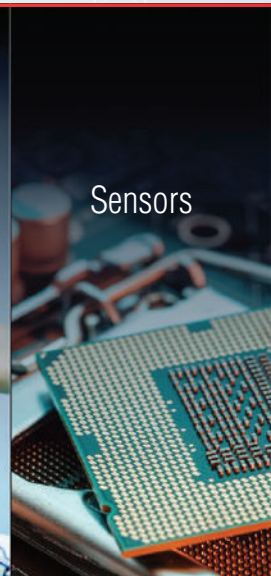**Automotive and Autosar solutions**

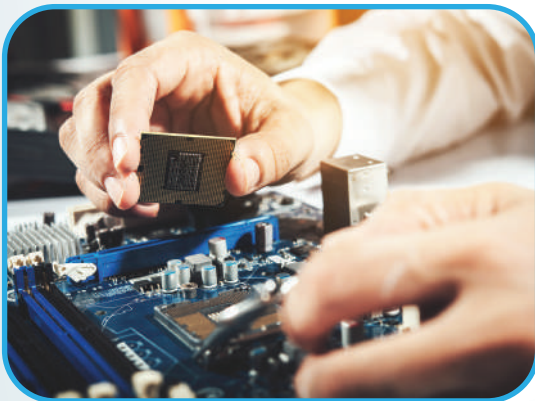Automotive Avionics Consumer Electronics Industrial Medical Sensors

VLSI Design

- Rich design experience includes – Analog, Digital & Mixed signal IPs and SoC Solutions– 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 0.35nm down to most advanced 5nm technology
- Executing Turnkey Projects – Ownership from Spec to GDS to Silicon
- Domain experience includes Data Converters, Power Management, High Speed Interfaces – PCIe, DDR, SerDes, SAS/SATA, Ethernet, MIPI, Foundation IPs etc.

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

Hardware Designing

- 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

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
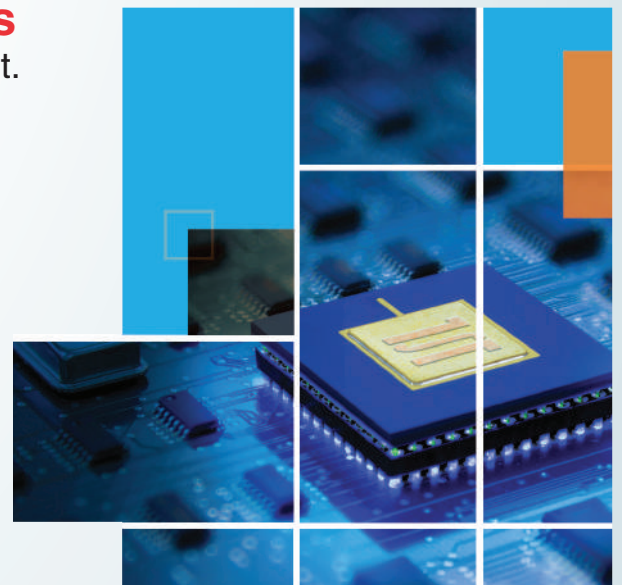- Microscopy & Measurement (Nikon lv150), X-Ray, X-Section analysis of PCB & DIE etc.

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
- Digitization: Tessolve is a One-Stop-Shop services provider covering all competencies required for your digital transformation: AI, IoT platforms, and cloud solutions including UI interfaces to access cloud

Together With Our Solution Partners

Realizing turnkey embedded systems development.

TEXAS INSTRUMENTS

Qualcomm snapdragon

SGeT STANDARDIZATION GROUP FOR EMBEDDED TECHNOLOGIES

NXP

RENESAS BIG IDEAS FOR EVERY SPACE

MEDIATEK

ST life.augmented

Infineon

An Extended Arm
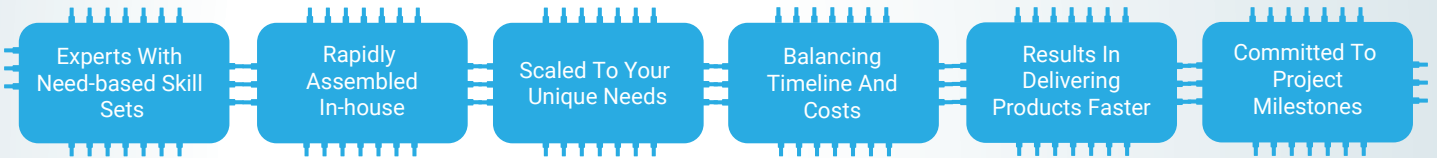## Of Semiconductor And Systems Companies

2600+
Expert Team

9+
Average Years Of Experience With Critical Technologies

90%
Technical Staff

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

- ATE Test Lab
- STPI SMART Lab
- FA & Reliability Lab
- VLSI Design CoE

The Outcome
Speaks For Itself

700+
Test Programs Released

VIP
Solutions For Different Protocols & IP's

130+
PCB Designs Per Month

26+
Products Released To Market In Various Domain Like Avionics/Automotive/Industrial

India | USA | UK | Germany | Romania | Thailand | Malaysia Singapore | China | Japan | South Korea | Philippines

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