

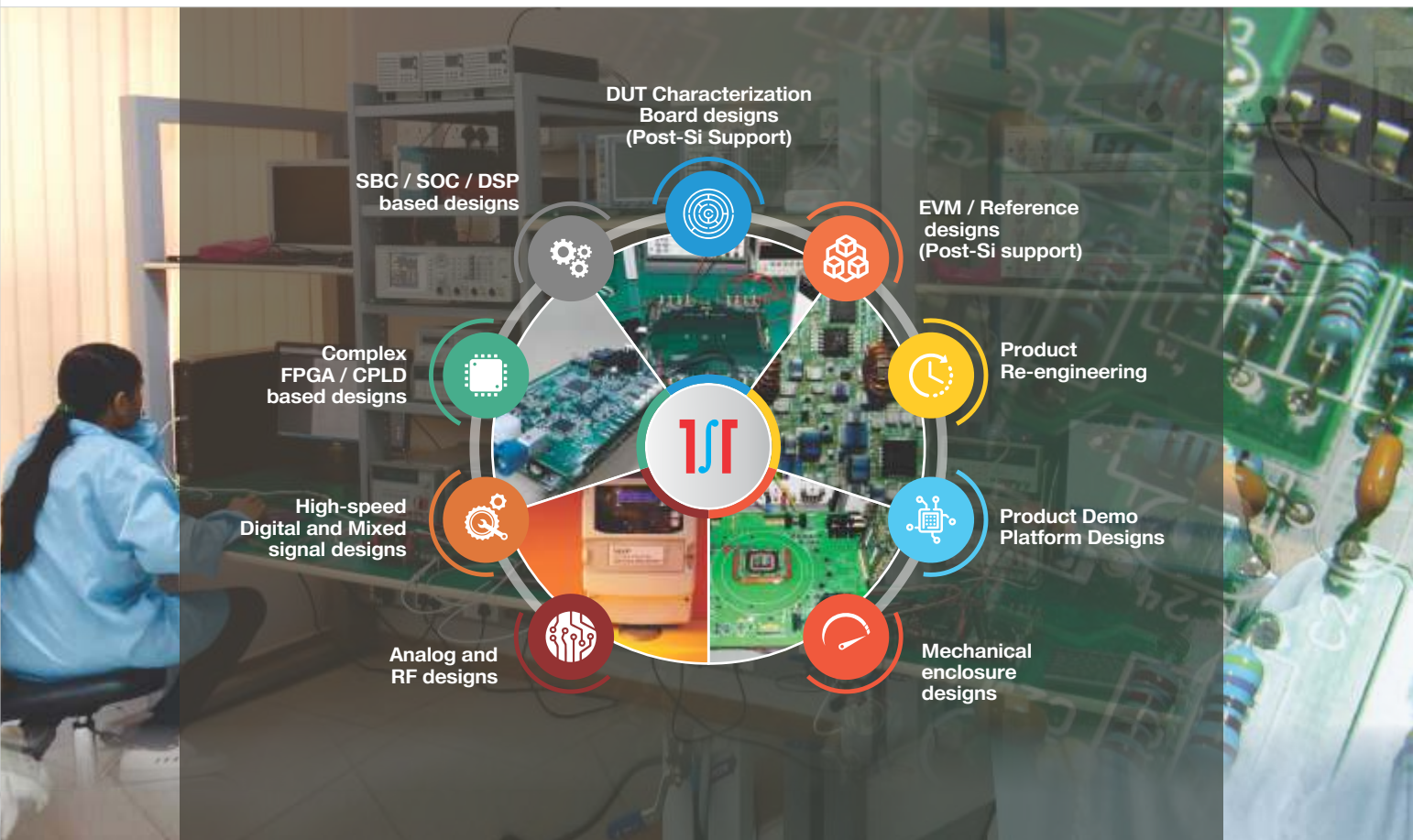


SYSTEM DESIGN AND DEVELOPMENT

Innovative minds and deep experience combine within Tessolve's System Design team to define the solution. Beginning at **Architectural Definition** through various stages that include **Parts Selection, Schematic, Layout Designs, Board Bring-up and Debug, SW Modules Development** and **Porting onto System HW** to final **Product Release**, we put the best resources together to unlock maximum cost-quality value for our clients. Each stage in the transition process is thoroughly checked and qualified through mature and well-defined intermittent processes.



Building end-to-end customer-specific solutions with innovation and scalability at the heart of the effort



DUT Characterization Board designs (Post-Si Support)

SBC / SOC / DSP based designs

EVM / Reference designs (Post-Si support)

Product Re-engineering

Product Demo Platform Designs

Mechanical enclosure designs

Analog and RF designs

High-speed Digital and Mixed signal designs

Complex FPGA / CPLD based designs

Tessolve

> Analog and RF Designs

Tessolve has over 25 man years of Analog and RF expertise including Design & Test experience (both at ATE and Bench). Expertise includes:

- RF Microstrip filters for 1GHz and above to a max of 7GHz
- Power amplifiers of the range 100MHz to 18GHz
- LNA designs in the range of 1GHz to 6GHz
- Transceiver Designs upto 4GHz covering all Telecom bands including S-band
- AFE designs for Signal Conditioning and filtering
- Wireless interfaces such as WiFi, Bluetooth, NFC and Zigbee

> High speed digital and mixed signal designs

Tessolve has over 175 man years of experience including Design & Test on major industry standard interfaces including:

- DDR/DDR-II/DDR-III
- PCI/PCIe, USB2.0/3.0, SATA, HDMI
- High Speed ADC (JESD Standard) and Data acquisition systems

> Complex FPGA / CPLD based designs

With over 75 man years of experience in the Pre-Si validation, Tessolve has involved in all phases of Pre-Silicon development and validation activities including RTL porting and System Integration. The FPGA Expertise include working experience in using:

- Xilinx Artix/Virtex/Spartan series complex FPGAs
- Altera Cyclone / Stratix and Aria series FPGA Devices

> SBC / SOC / DSP based designs

The System Design Team is a real value addition to Tessolve's portfolio from Post Silicon validation & testing perspective and application board designs as well. The team with over 150 man years of experience, gets involved in defining the architectural design & implementation understanding the System Requirements. The team has rich experience in defining HW and SW for the System including:

- TI's MSP430x / OMAP / 32xx Controller based designs
- ARM/PowerPC/x86 core based designs
- Real Time Operating System such as VxWorks, Linux & other customer proprietary Real time OS

> DUT board designs (Post SI support)

Post Silicon validation & characterization demands DUT Board designs to consider all the challenges to perform the measurement across multiple devices & temperature conditions to ensure that only true silicon related issues are observed. The domain experience includes DUT board design for:

- Analog Converters and Power Management Devices
- High Speed Interfaces in the form of Test Chip
- RF Devices for various applications including: WLAN, Bluetooth, Zigbee, NFC and FM

The Characterization across multiple devices usually demand Automation setups to speed up the Device characterization – which is usually addressed by in-house Lab Automation team.

> EVM/ Reference Designs / Demo Platforms (Post SI support)

As a part of Post Silicon validation task, the System Design Team helps customer get into the market as quick as possible.

- Demo platforms enable pre-silicon validation or concept proving capabilities
- EVMs enable device validation as part of post silicon activity
- Reference designs and Demo Platforms enable application proving.

> Product Re-engineering

As part of System design activity, the team undertakes product Re-engineering activities such as:

- HW Part obsolete management
- BOM optimization and Form factor reduction
- Enclosure housing etc.

> Mechanical Enclosure Designs

With over 75 man years of experience in Mechanical enclosure design, the mechanical team is well trained and experienced with Solidworks and ProE 3D CAD software tools.

- Proven ability to handle Metal Enclosures such as 19" Rack mountable and Industrial heavy enclosures.
- ABS Plastic based Enclosure designs such for consumer electronics.
- Aluminum Heat sink designs for CPCI/PXI based SBC Boards and RF power amplifiers
- Good supply chain contacts for 3D printing and prototyping.

