



TLSI possesses extensive experience and expertise in the design and manufacture of digital and mixed-signal, custom Application Specific Integrated Circuits (ASICs) and has been successfully relied upon by customers in the automotive, industrial, defense/avionics and smart energy markets for over 30 years.

## Meeting Stringent Requirements

From initial specification and throughout the entire ASIC development process, including definition, qualification and volume production, TLSI's engineers and knowledgeable supply-chain partners work in lockstep with customers to meet even the most stringent program requirements.

## ASIC Development Success

As a leading-edge, fabless semiconductor company, TLSI has designed and delivered nearly 400 mixed-signal custom ASICs with a proven history of 90% first-time silicon success. Our cost-effective design optimization reduces size, weight and power while increasing system reliability and securely protecting IP. TLSI's form, fit and function, pin-for-pin and identical replacement devices, as well as our 20-year production guarantee mitigate customer risk and provides peace of mind. We also possess expertise in high-temperature and rugged/harsh-environment solutions.

## World-Class ASIC Design Team, Expertise and Know-How

- High-performance analog and mixed-signal ASICs
- PMICs and isolation IP
- Mixed-signal System-on-Chip (SoC)
- True second sourcing and End-of-Life (EOL)/DMSMS IC replacement

## Certifications and Production Flows

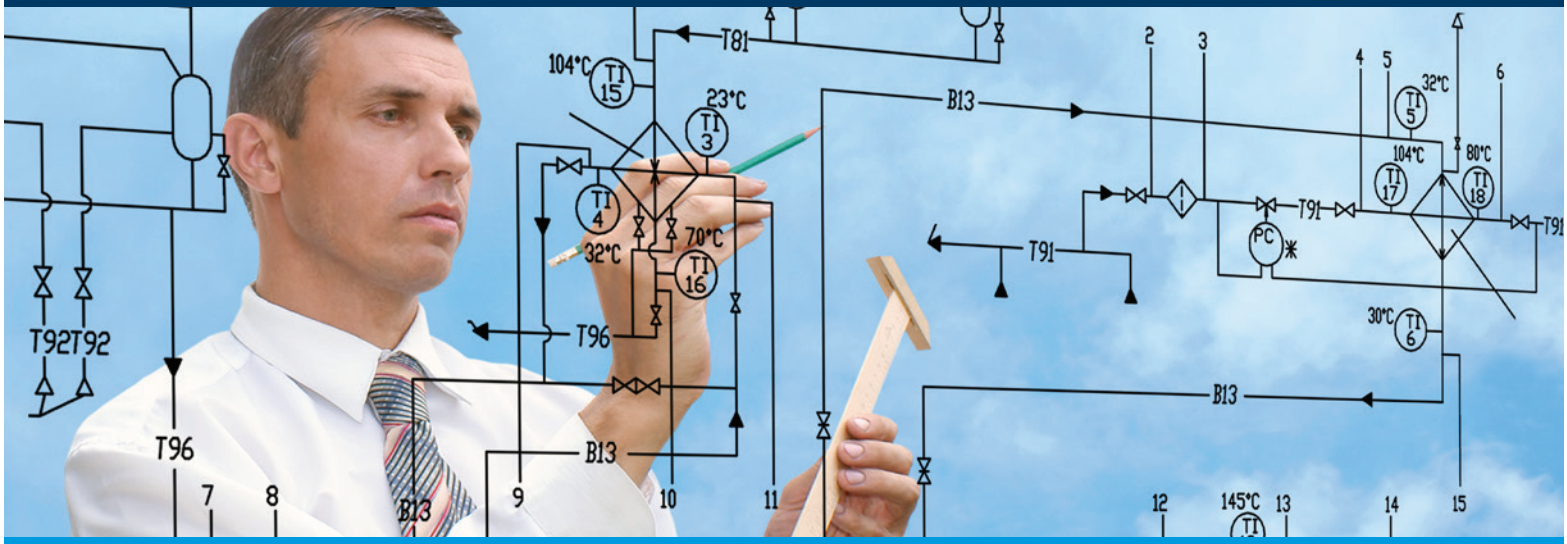
- High-volume production and logistics
- AEC-Q100 automotive standards
- DO-254 avionics standards
- Full Mil and ITAR compliance

## 38 Years of Success with Global Tier-1 OEMs

- Complete design and manufacturing with >97% on time delivery
- Over 90% first-time silicon success with nearly 400 ASICs
- 20-Year production guarantee and buffer stock inventory



# Advanced Capabilities



## High Performance Analog

Working in advanced CMOS, BiCMOS and Bipolar processes, TLSI develops system architectures to solve tough commercial, high-voltage, high-temperature and harsh-environment challenges.

## Mixed-Signal SoC

Specializing in complex digital, high-performance analog and high-speed I/O integration, TLSI's SoC solutions can be optimized to meet critical program requirements such as low-cost, low-power and high-voltage.

### Sub 1 V to 200 V Monolithic Silicon

- Advanced CMOS and Bipolar processes

### 200 V Switch Isolation Technology

- Integrated proprietary isolation IP

### Data Converters

- SAR, Delta Sigma, Pipeline ADCs

### Inductive Drive

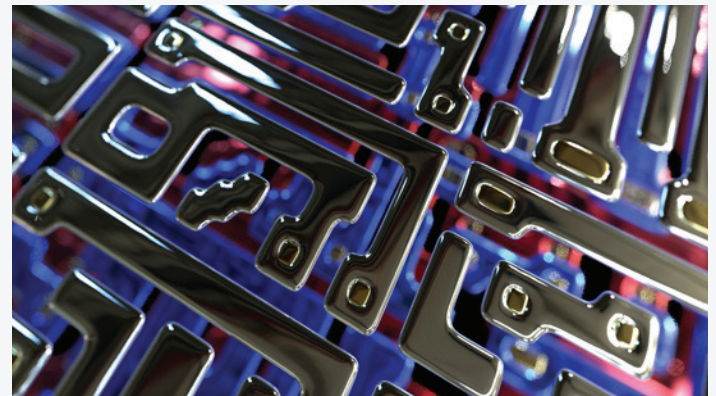
- Complex switched coil loads

### Sensor Interface

- Temperature, pressure and vibration

### Automotive Bus Interface

- LIN, CAN



### Microprocessors

- Low power 8- and 16-bit

### System Timing

- PLL and clock distribution

### Power Management ICs

- Power ramp timing and control

### High Performance Amplifiers

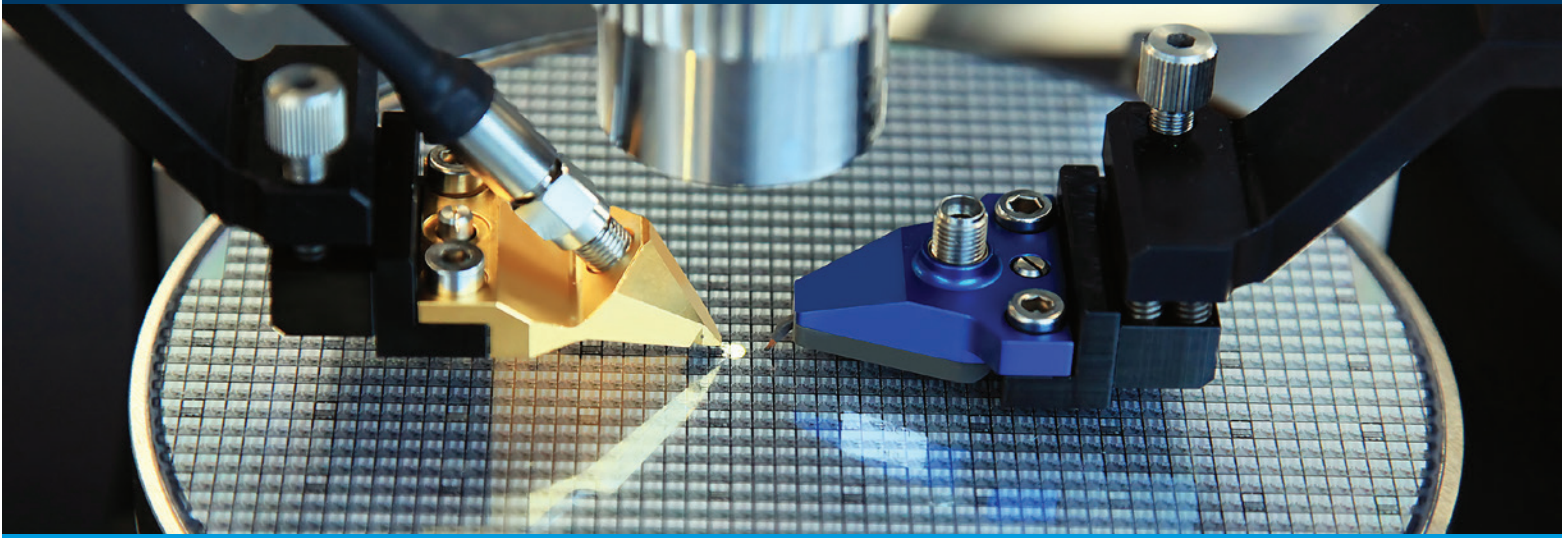
- Precision audio to GHz communication

## Advanced Packaging

- Chip on Film (COF)
- Multi-chip modules
- Known Good Die (KGD)
- Enhanced thermal performance



# Proven Success



## Industrial Applications

- Two-wire transmitter
- ACD ASIC, ECP ASIC
- Communications IC
- Detector, interface ASIC
- Enhanced communications IC
- Low-voltage encoder
- Multi-plexer ASIC
- Speech playback
- PIR detector
- Print head driver
- Security tag
- RF encoder
- Rate of rise temperature detector
- Smoke detector
- Sounder ASIC
- System timer ASIC



# Telephonics Large Scale Integration



## Automotive Applications

- Rear windshield wiper
- Rear window defogger
- Microprocessor buffers
- Dual battery control
- Fuel injection control
- Engine and ignition control
- Fuel, oil and coolant level sensors
- RFID tags and keyless entry
- Radar detectors
- Dashboard indicators
- Electronic horn
- Pressure sensor
- Chime and light control
- Steering wheel, torque converter
- Air conditioning
- Air bag control
- One-touch window controller
- Transmission SoC

## Defense/Avionics Applications

- Munitions fuses
- Smart munitions
- Vision systems
- Cockpit flight systems
- Navigation systems
- Fire control systems
- Instrumentation
- Lighting control
- Displays
- Battery management
- Test equipment
- Radiation tolerant environs
- Obsolete IC replication
  - Standard products to ASIC
  - ASIC to ASIC
  - FPGA to ASIC
  - System integration

For additional information, contact TLSI at 512.203.3969 or visit [www.telephonics.com/tlsihome.php](http://www.telephonics.com/tlsihome.php)