

Telesensors, Inc.
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Company Profile

Telesensors, Inc. is a professional engineering services company providing basic product design and development, project management, and manufacturing services. Capabilities that differentiate Telesensors from other service providers is our ability to provide highly integrated solutions based on our mixed-signal ASIC, wireless, and sensor experience.

Local Talent for Success

Telesensors is located in the heart of the Oak Ridge – Knoxville scientific community. The founders have been a part of the East Tennessee business community for over 15 years. Telesensors was founded in 2003 and has been staffed full time since early 2005.

Concept to Commercialization

Our depth of experience provides us with the capability to work with customers at any phase of product development; from concept generation, to low volume discrete solutions, to medium volume integrated platforms, to high volume ASIC integration and manufacturing. Telesensors is your design services partner through all phases of the product life cycle.

Recent Project Examples

National Institute of Health, NIAAA

Project Description: Phase I for an implantable microcantilever based ethanol sensor with wireless telemetry for the animal research market.

Nucsafe, Inc., Oak Ridge, TN

Project Description: Subcontract for the development and testing of a custom high speed neutron pulse processing ASIC.

Memorial University of Newfoundland (MUN)

Project Description: Proof-of-concept contract for development of a large scale parallel FPGA based computer for imaging seismic data in the oil and gas exploration industry.

Triad Semiconductor, Winston Salem, NC

Project Description: Subcontract for mixed-signal ASIC platform design integrating front end analog electronics with an 8051 core to support customer's DOD project.

Clemson University, Clemson, SC

Project Description: Subcontract for sensor electronics and wireless data collection system for a DOD shock sensor implant.

Additional project experience available upon request.

Staff Competency

Core Capabilities

- Systems architecture development
- Digital, analog, mixed-signal design
- FPGA, custom, and structured ASIC strategies
- Hardware and firmware development
- RF/IR and other wireless technologies
- MEMS and other sensing technologies
- Highly integrated systems for ultra low power
- Digital signal processing
- Image & audio processing
- DES & RSA encryption algorithms
- Mechanical enclosure design
- Complete systems integration

Selected Skills

- Schematic capture – OrCad, Mentor Graphics
- Simulation – HSPICE, PSPICE, Matlab, Modelsim, Simulink.
- HDL languages – Verilog, VHDL
- Software – Visual C++, Win 32 API, Fortran, Assembly, Unix, PC Tools, TCL and other scripting languages
- Firmware – Intel 8051, 8085, 80186, Motorola 6800, 68000, 68HC11, TI MSP430, TMS320C31, DSP560001
- PLD, FPGA – Altera, Xilinx, Actel
- PCB Design – Designs up to 24 layers, high speed, low noise
- ASIC Design – System architecture, HLD design, synthesis, simulation, timing analysis, floorplanning, place & route, back annotation of delays, DFT methodologies, GDSII generation, bonding, FAB tape out
- ASIC FAB – LSI Logic, TSMC, Chartered, OKI Data, AMS, Austriamicrosystems, Triad Semiconductor

Superior Services

- System modeling and simulation
- Feasibility studies
- Prototype generation
- Product development
- Project management
- Supplement engineering teams
- Products to manufacturing
- Transition to high volume off-shore manufacturing

Key Personnel

Technical

Peter Hansen, Ph.D., CTO, p.hansen@telesensors.com
Steven Kurant, Dir. of Engineering, s.kurant@telesensors.com

Point Contact

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Full company presentation available upon request.