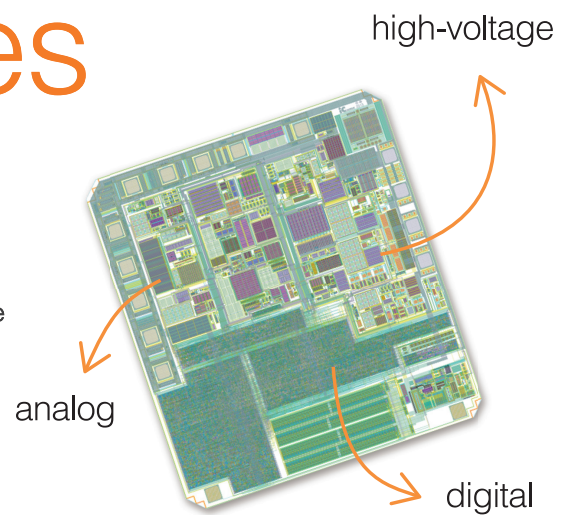


Custom IC design services

What makes us stand out

- Largest independent European design group
- Unique expertise in analog, digital, mixed-signal and high-voltage
- Extensive IP portfolio in (HV) CMOS, BCD, SOI
- Unique design and verification environment
- High complexity at low risk
- In-house bench testing, characterisation and ATE development



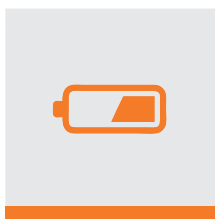
Main expertise areas



Sensor / MEMS



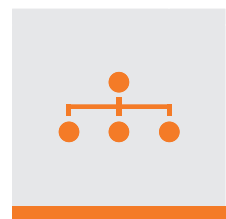
High-Voltage



Power / Battery



Low-Power



Communication

“Our systematic design approach ensures high traceability and reduced technical risk”

ICsense COO, Yves Geerts



www.icsense.com

Silicon proven IP

Sensor/MEMS interface

ToF (Time-of-Flight), Hall, fluxgate, GMR/TMR, accelerometer, gyroscope, Wheatstone bridge, capacitive, inductive proximity, gas/chemical sensor, piezo/ultrasound, X-ray imagers, IR ROIC

Analog front end (AFE) interface

Instrumentation amp, PGA, offset-compensation, low-noise amp, chopping/CDS, high-performance ADC & DAC, analog filters, high-speed TIA, high resolution TDC

Ultra-low-power IC

Ultra-low-power AFE, low quiescent current PMU, active PVT monitoring and compensation, RFID, nano-amp clocks, ultra-low-power NFC front-end

Auxiliary circuits

On-chip temp measurement, POR, watchdog, reverse voltage & short circuit protection, OV/UV/OC/SC protection, temperature stable oscillators, precision Vref, 1000 ppm on-chip clock (no external components), low-jitter PLL, DS fractional-N synthesis

Radiation hard custom IP

ADC, DAC, Vref, PLL, DC-DC

Power management and DC-DC

Inductive DC-DC, multi-level/single-coil, charge pumps, PWM controllers, LDO, linear regulators, RF energy harvesting

Battery management

Wireless charging, Li-Ion, State-of-Charge/Health BMS, bandgap, brownout detection, soft-start/inrush limitation

High-voltage

High-side, low-side drivers, HV level shifters, gate drivers, power control, piezo transducers, neural interfacing, Class-D/AB/G/H amplifiers, HV switch arrays, floating switches, HV in standard CMOS (patented)

Communication protocols

NFC, SPI, I2C/I3C, UART, RS485, CAN, J1850, xDSL, EPC Gen-2, OWI, PWM, SENT, LIN, OBD, PSI5, 4-20mA, LVDS, JTAG

DSP, microcontrollers and memory

Custom DSP, MAC, filtering, ARM Cortex, MSP430, custom FSM, OTP, MTP, Flash, EEPROM, RAM, ROM, NV-RAM

Technologies

28nm to 0.35 μ m in TSMC, onsemi, Global Foundries, XFAB, UMC, SMIC, Tower Jazz, AMS, ...

Further details on ICsense
silicon proven IP

www.icsense.com/custom-ic-design



ICSENSE NV
Gaston Geenslaan 14
B-3001 Leuven (Belgium)

Tel. +32-16-58 97 00
designservice@icsense.com
www.icsense.com

[linkedin.com/company/icsense](https://www.linkedin.com/company/icsense)