

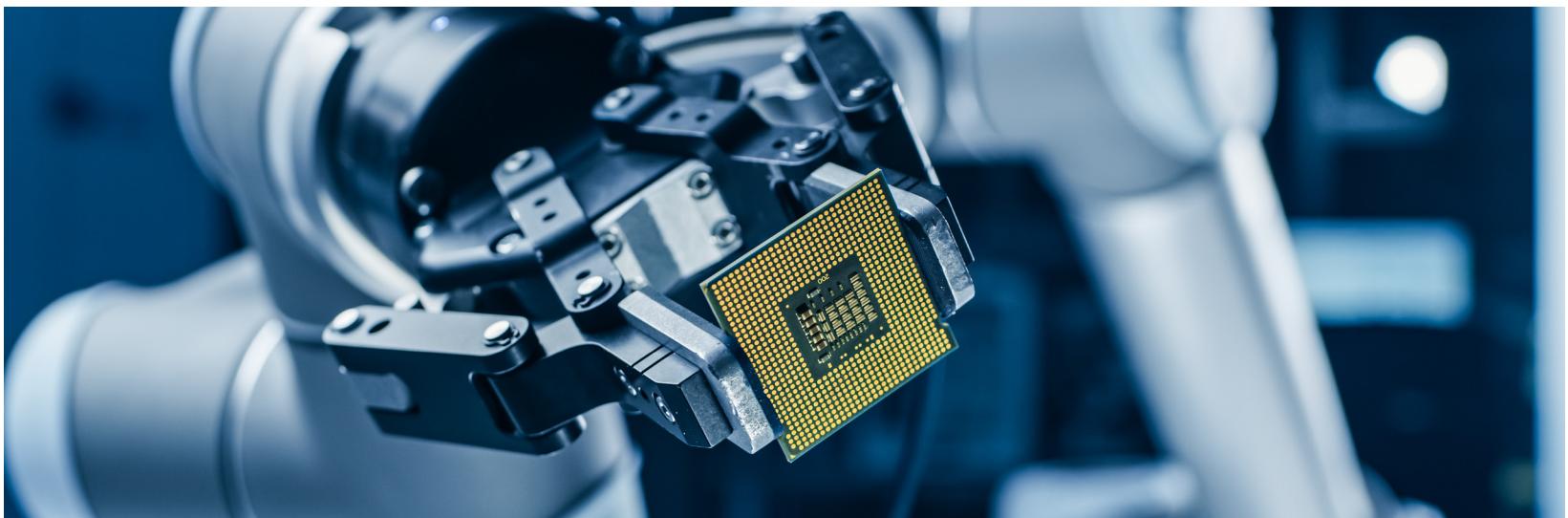
FIDES

ELECTRÓNICA



FIDES

Fides designs, manufactures, and offers turnkey solutions for different industrial sectors, implementing the status-of-art of available technologies.



■ WHO WE ARE

Fides designs, manufactures, and offers turnkey solutions for different industrial sectors, implementing the status-of-art of available technologies. The combined experience of both Engineering and Sales departments allows the necessary flexibility and technical capability to develop advanced solutions and transform good ideas into reality

■ CUSTOMIZED DESIGN

Our know-how is focused on customized design of cost optimized solutions

Full coverage from concept design to mass production

Mechanical 3D Modeling, Design, and Packaging

High level SW & HW tools to reduce time-to-market

Fides is mostly active in home appliances, professional appliances, HRVAC, plumbing, medical equipment, automotive, light electric mobility.

Main Customers: BSH, SMEG, Winterhalter, Soler&Palau, Siemens, Fluidra-Zodiac, Rothenberger, Fujitsu Denso-Ten, Silence, Girbau, Sedecal, Brembo, Silence.



■ e-MOBILITY

Electronic controls and powertrain components for electric 2, 3 and 4 wheels vehicles: MCU, ECU, VCU, BMS, battery packs, controls for chargers, TFT displays, sensors.

■ MOTOR CONTROL

We are specialists in **motor control techniques** using low-cost drivers for ACIM (single-phase or three-phase), PMSM, BLDC and DC motors

Motor specification and driver design (phase control, three-phase inverter, DC chopper).

■ COMMUNICATIONS

Communication protocol design under SPI, UART, I2C, LIN, IR, CAN

Wired or wireless communications: LAN, Wi-Fi, Bluetooth, RFID, Zigbee, etc



■ SOFTWARE SKILLS

C and C++ languages for microcontrollers/microprocessors

Matlab & Simulink environment

Communication routines, self-programming libraries, user's interface routines

Analog signal measurement as thermocouples RTD, NTC, pressure sensor, strain gauges, hall sensor, voltage and currents sensing devices

PID regulation algorithms with digital sampling, PWM, phase control, self-testing routines and software encryption routines.

Graphical user interface languages such as Qt, Java, Visual C#, XML/XSLT

PC applications to interacting, firmware programming, LabVIEW, TestStand, data log and software parametrization



■ CERTIFICATION QUALITY SYSTEM & PRODUCT

ISO 9001

ISO 14001

CCC

BIS



■ MECHATRONICS

Industrial design of finished good

Concept and executive implementation in the end application

Mechanical 3D CAD (Solidworks) with internal 3D fast prototyping printer

■ EMBEDDED WORLD

TFT drivers

Ethernet, USB, Wi-Fi, Bluetooth, GPS, GSM/GPRS.

High level applications based on Linux operating system

Embedded computer for ARM Cortex with customized SBC or carrier board to fit specific requirements

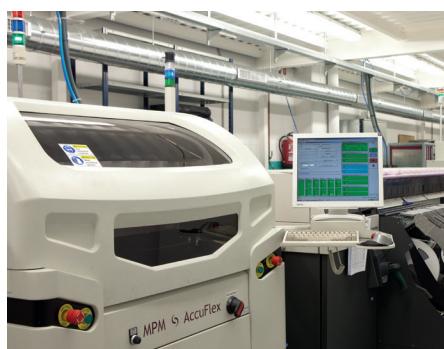


■ SAFETY REGULATIONS

Product certifications according to IEC/UL standards:

- Home appliances IEC 60335 / UL 921 / UL 8750
- Automotive ISO 26262
- Batteries IEC 62133 / UN38.3
- Class B software certifications (IEC 60730)

■ OUR KNOW-HOW



PCB Design: Altium. Single layer to multilayer

Software development: C/C++, Assembler, GNU/Linux BSP & drivers, Java, Qt

Development of SBC and embedded modules
(Cortex M and A families)

Development of BSP and drivers for GNU/Linux operating system

16-bit microcontrollers (Renesas RL78, Cypress PsoC)

32-bit microprocessors (NXP Cortex A/M, Texas Instruments Cortex A/M, Renesas RX)

FOC for IM and PMSM motor

Chopper control for DC PM motor for e-motorbike

Battery products: battery packs & BMS design

User interface boards: TFT with touch screen

■ MANUFACTURING

• Nr. 2 SMD assembling lines (60k cmp/h.)

• 3D SPI & AOI

• Nr. 1 wave soldering line

• Nr. 1 conformal coating line

• Nr. 1 potting equipment

• Standard in-circuit test (MDA)

• Functional test

• Dark chamber display test



HEADQUARTERS

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