ELECTROMECHANICAL I.K.E

Company Presentation

The Company

Established in 1998 in Greece

Self-funded SME (Ltd)

Registered name: ΗΛΕΚΤΡΟΜΗΧΑΝΙΚΗ ΟΡΝΤΕΚ Ι.Κ.Ε
ELECTROMECHANICAL ORDTECH I.K.E

Type of legal entity: I.K.E (private capital corporation).

The Company

Company Reg.No.	2990201000
Special Exports Reg. No.	26874 / 16-08-1998
Chamber of Commerce Reg. No.	171863 / 07-08-1998
TAX I.D Reg.No.	095776672

The Company

Principal Activities:

-Design,
-Engineering,
-Research & Development,
-Prototype Manufacture
-Trading, Import / Export

Fields:

Electromechanical and Electronic systems and equipment for aviation, marine, industrial applications.

The Company

Registered office:	22 Dimokratias ave. N.Psychikon 15451 GREECE
e-mail:	ELECTMEC @ OTENET.GR
web-site:	www.electromechanical.com.gr
Phone:	+30 210 6776271 / +30 231 2314605 +30 69 7089-4747

Technical Background

- **AEROSPACE**
  - Analogue (POTS) and Digital voice/data field terminals for tactical communications
  - Modernization of avionics display systems for fighter aircrafts
  - Rack based power supplies (AC/DC, DC/DC) low/high power
  - Interface and control subsystems realized in VHDL for use in FPGAs of radar systems

Technical Background

- **TELECOMMUNICATIONS**
  - PCI/cPCI POTS line cards
  - ISA/PCI/cPCI N-ISDN (S0, UK0, UP0, UA, E1/T1/J1) network interface cards and monitoring probes
  - ISA/PCI B-ISDN (STM-1, STM-4) network interface cards
  - Standalone and ISA/PCI Data interfaces (RS-232, RS-485, V.35, V. 36, X.21, 10/100BT Ethernet, USB)
  - FPGA based (XILINX VIRTEX family) test benches for ASICs' proof-of-concept (R&D)
  - PCI/cPCI Computer Telephony (CT) and Switching sub-systems

Technical Background

- **INDUSTRIAL CONTROL & AUTOMATION**
  - Automated Test Equipment for functional and production testing of Circuit Card Assemblies (CCA) for various applications
  - Cable testers for aerospace harnesses
  - GSM/GPRS based fleet management solutions
  - RFID based supply chain management solutions
  - ZigBee based remote control

Engineering Expertise - Capabilities

- Analysis, Design, Development, Validation and Verification of Digital/ Analogue/Mixed-Signal **Systems and Sub-systems** for Defence and Aerospace, Telecommunication, Industrial Automation & Control, supporting among others harsh environmental conditions, low and extremely-low power requirements
- Interfaces, Control logic, Reconfigurable Hardware and Algorithms realization within Field Programmable Gate Areas (**FPGAs**) and Complex Programmable Logic Devices (**CPLD**)
- High-performance **Real Time Embedded Systems** solutions for Defence, Telecommunications, Industrial Control/Automation based on state of the art OS

Engineering Expertise - Capabilities

- Design of Single/Double/Multilayer/Flex Printed Circuit Boards (**PCBs**) for Power/High-speed/Digital/Analogue/Mixed-signal applications, incorporating state-of-the-art tools and techniques for Signal Integrity, Thermal management, EMC/EMI compliance, RoHS compliance, Design For Test (DFT), Design For Manufacturing (DFM)

- Open System Architecture (**OSA**) based, fool-proof, fully Automated Test Equipment (**ATE**) for functional and production testing

CAE/CAD Tools - T&M Tools

- Matlab/Simulink (Mathworks), Vivado SoC (Xilinx) CAE tools,
- ISE Design Suite (Xilinx), Quartus II (Altera), Libero IDE (Actel-Microsemi) FPGA design tools,
- System Studio for Linux (Intel), TI Code Composer Studio IDE, Atmel Studio, MPLAB IDE (Microchip) embedded SW development tools,
- PADS ES (Mentor), Altium Designer (Altium), Eagle (Cadsoft) PCB CAD
- AutoCad (Autodesk) Mechanical CAD
- DSOX3024A, Oscilloscope, 4-channel, 200MHz, 4Mpts
- E3631A, Triple output DC power supply, 80W

Success Projects examples

- Analysis, Design, Development, Validation and Verification of:
  - the interface and PSU board for a prototype thermal camera,
  - a prototype board for use as a test bed for a new technology high speed memory IC,
  - a 1KW AC/DC rectifier/filter for a rack based system,
  - a 0.5KW DC/DC converter for a rack based system,
  - an analogue control component for aircrafts,
- Reverse Engineering for a number of obsolete electronic subsystems,