



# High Reliability Electronics

Design, Industrialization & Manufacturing

www.microtec-electronics.fr



#### SPACE

Design and production of embedded devices and GSE.



#### **AERONAUTIC**

Design, industrialization and mass production of customized products in electronics and mechatronics.



#### DEFENSE

Design and construction of equipment, reverse engineering and maintenance in operational conditions.



### MEDICAL

**Recognized** expertise in the design and manufacturing of medical devices.



#### AUTOMOTIVE

Specialized in stress test benches and ECU endurance and metrology benches and sensor characterization.

# **MUREY** The industrial partner of your electronics projects

ICROTEC specializes in the design, industrialization and manufacturing of electronic and mechatronic cards and equipment, test engineering, prototyping, unitary industrial cabling, small and medium series, as well as the MCO.

MICROTEC focuses its activities mainly on the space, aerospace, defense, automotive and medical sectors.

# Integrated Offer

#### Tailored service at each step

Microtec is the industrial partner on all or part of the process, from the study to the manufacturing of your electronic projects, offering its customers an "intervention at all steps".

#### Innovation, Development, expertise

· System architecture

MRO

Hotline

Maintenance

- Obsolescence

management

- · Electronic board design
- · Equipment development
- Test bench and tools design
- · Qualification and validation

# Integrated offer

Quick services Mock-up Drawers and cabinets integration Harnesses

manufacturing

#### Integration of embedded High reliability equipments Electronics assembly

- Integration
- Functional tests
- · Performance tests
- Sourcing components Assembly and control

 Industrialization · Process qualifications

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- Deburring and tests





- Space equipment
- Test and validation benches
- Industrial equipment
- Medical equipment



- Electronic design, software and mechatronics CAD, CAD
- Industrialization
- Focusing
- Qualification (T °, CEM ...)

# Turnkey production of space equipment

- Electronic cards and wiring harnesses
- Integration of boxes, racks, bays
- Mechanical workshop
- Manual and automatic test (SYNOR), Quality Control



## PCB Assembling (PCBA)

- Cabling flight card and mixed processes (auto and manual)
- Qualification IPC610A class 3 and ECSS
- Buy PCB and EEE
- AOI 3D and AXI 3D
- Painting, collage
- Deburring, Testing and MIP

## Equipment integration

- Electronic & mechanical integration
- Robustification cards and equipment
- Berries & EGSE
- Test and validation

### MRO

- Investigation
- Repair
- Standard PART145
- Management and treatment of obsolescence



# 2 Start Up Offer

ITH more than 40 years of expertise in the design and industrialization of multisector finished products, Microtec accelerates the maturity of your products through an integrated service offer from the TRL 3 level to TRL 9, mobilizing all its teams design, industrialization and production.

In addition, Microtec relies on a network of industrial and institutional partners, who are indispensable for transforming a technical concept into an industrialized "end-user" product.

## **Advice and support** of MICROTEC

- > Technical specifications and derisking functional & technological: Model functional
- > Design and development: Demonstration prototype
- >Industrialization and method: Product finalized for deployment
- > Production: Life series of the product



concept and/ or application formulated

reported

, established

of prototype component or process

testing of integrated system

system verified

pilot system , demonstrated

incorporated in commercial desian

System ready for large scale deployment



# 3 DUAL HI-REL Offer

## **Space Quality at Aeronautic Price**

### High reliability electronics assembly

> IPC and ECSS dual expertise

> Proposal to optimize the cost of assembly by adapting the slider "process quality" to the best compromise "need / cost".

# Offer complemented by a wide range of services

- Study including design and co-design
- > Industrialization including PCB design



MICROTEC adjust the quality process to the best quality / cost ratio



# Our Means

> 600 m<sup>2</sup> of clean room ISO 8-9 (ISO 6 possible); EEE storage & PCB under nitrogen

> IPC 610 Class 3 automatic line and project ECSS qualification

> 1,000 m<sup>2</sup> of industrial workshops ("aero" platform, wired workshop, workshops dedicated to product lines)





Our SAV workshop is audited and certified according to PART 145 and our wiring is according to IPC610E and 6210B class 3.



Spatial cabling expertise



Major subcontractor



Approved repair station









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