

# ATE

## Automated Test Equipment *Space, Defence and Mission critical applications*

**GILLAM-FEI** brings you an industrial solution answering to the conformance testing needs of your electronics assemblies.

**GILLAM-FEI** relies on a panel of in-house experts and owns the manufacturing competences to provide you the most cost-effective solution tailored to your particular needs.

### *Key Features*

Choosing **GILLAM-FEI** as partner of confidence for the test phase of your projects will ensure you:

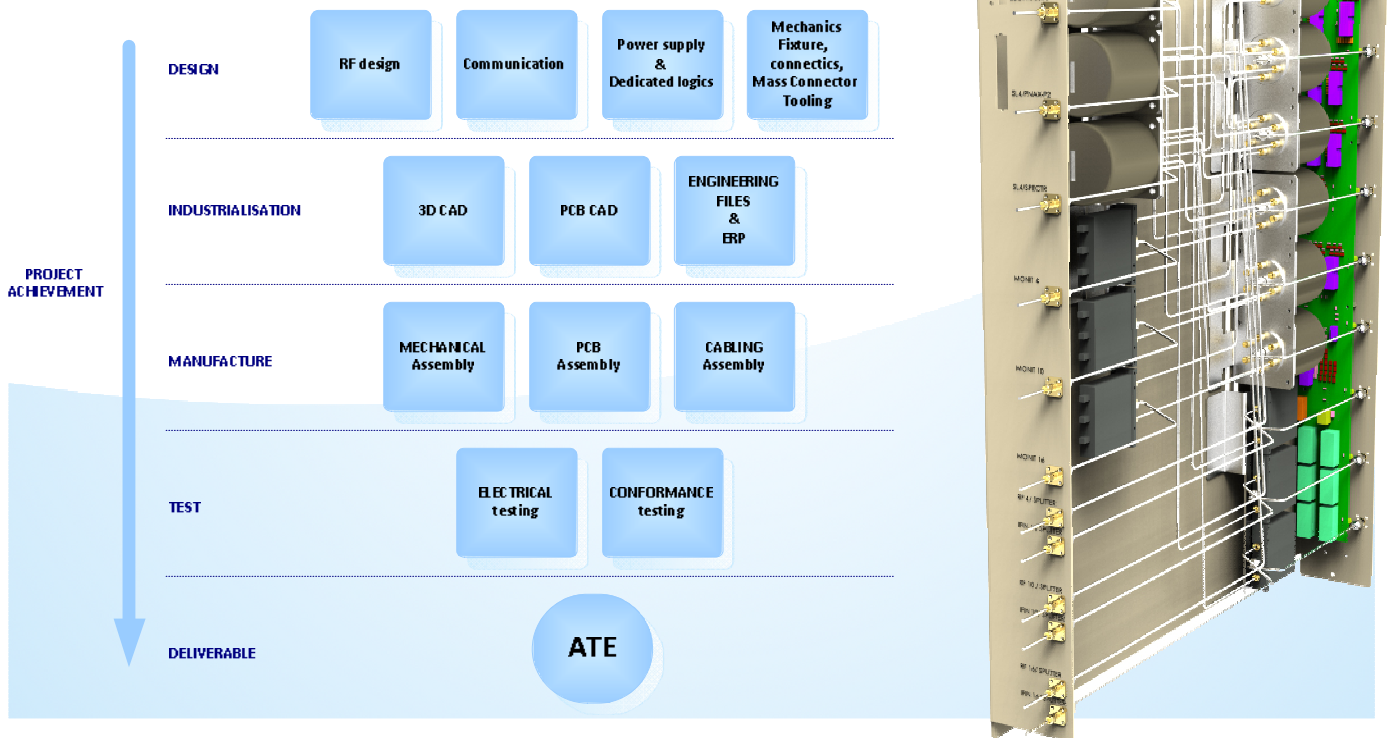
- to get high **confidence** in the **quality** of the deliverables
- to respect your programme **schedule**
- a **cost-reduction** on the overall project



**Gillam-FEI**  
FREQUENCY, ELECTRONICS & TELECOMMUNICATIONS

Mont Saint-Martin 58  
B-4000 LIEGE  
Belgique  
Tel.: +32 (0) 4 232 95 95  
Fax : +32 (0) 4 223 42 76  
✉ : [info@gillam-fei.be](mailto:info@gillam-fei.be)  
🌐 : [www.gillam-fei.be](http://www.gillam-fei.be)

## GILLAM-FEI Competences and resources



GILLAM-FEI has +40 years of expertise in design, test and manufacture of electronics equipments.

Our team of skilled engineers is composed of:

- RF specialists
- Electronics engineers
- Mechanical engineers
- Software engineers
- Embedded software engineers
- Quality assurance manager

For the manufacturing, GILLAM-FEI has in-house facilities:

- PCB assembly line
- Hardware workshop
- Cabling factory
- Test and commissioning platforms

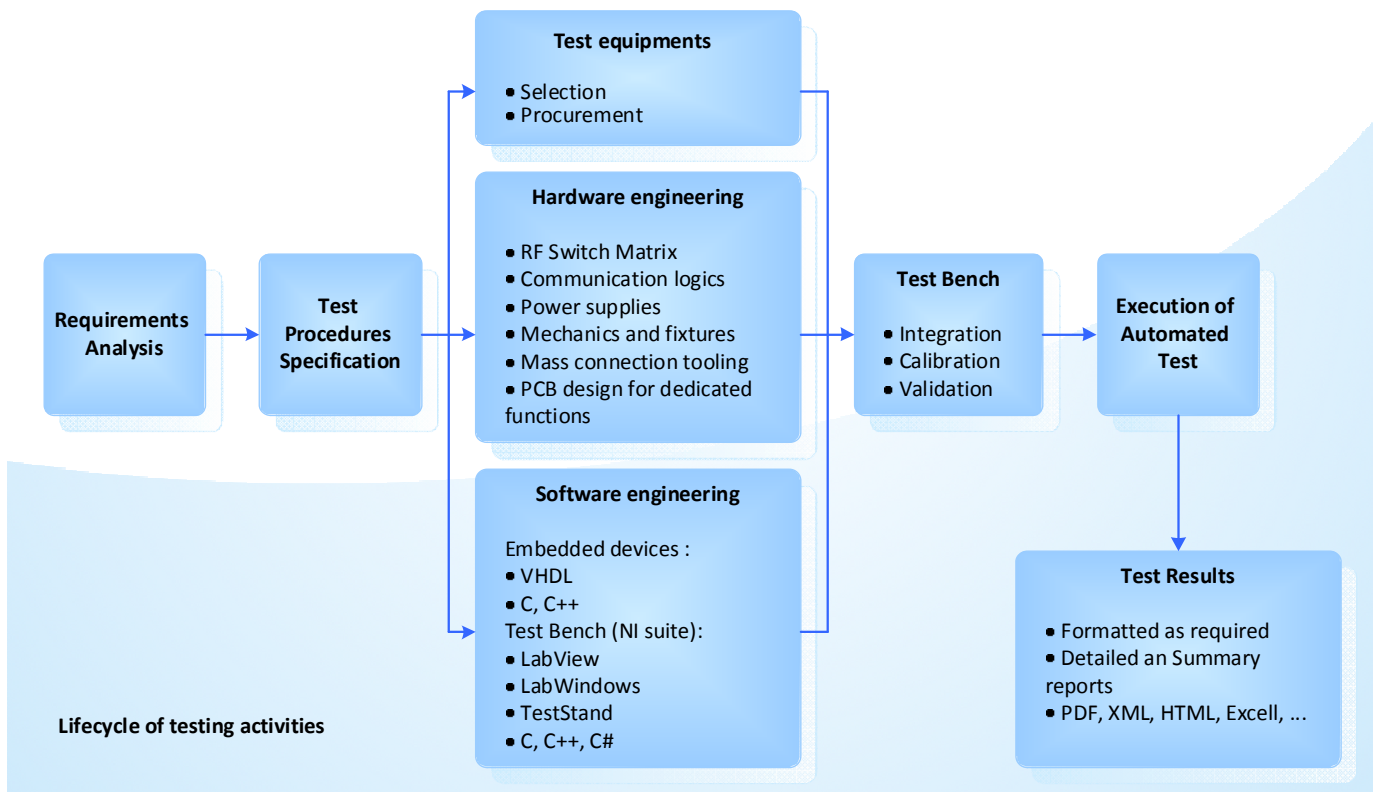
For the definition of the product industrialisation, our company relies on :

- 3D CAD engineers
- PCB CAD engineers
- Engineering files & ERP

## Modular project management

Whether needing turnkey project or on-demand services, GILLAM-FEI team of skilled engineers is able to meet your needs.

From the specification to the conformance test report delivery, GILLAM-FEI has the appropriate resource to accomplish every milestone of the project. Customer is also free to pick-up "à la carte" services.



Our RF engineers are able to define the most cost-effective solution to perform the required testing :

- Definition of measurement test sets.
- Design of RF switch matrix to route the signals automatically.
- Design trade-off is made based on the cost of RF test equipments versus the use of discrete RF components.

Our mechanics department is able to design a complete and professional solution exactly adapted to the equipment to be tested. During the design phase, all the pieces are 3D-modelled and virtually assembled before production :

- The test-bench is modelled.
- Design of complex RF switch matrix.
- Mass connection tooling for reliable and quick connection of the EUT.

Custom PCB are engineered in order to :

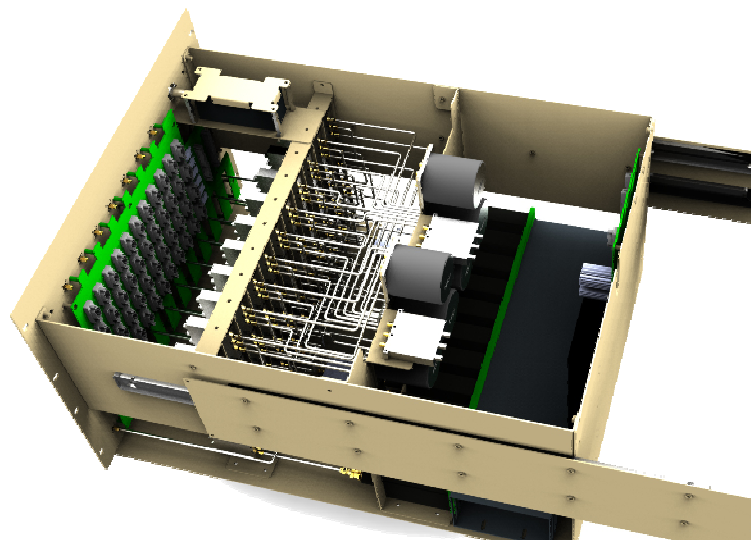
- simplify the connectivity to an organized plug-and-play solution.
- multiplex / distribute the signals and communication channels.
- Add dedicated programmable logics to emulate external I/O.

The company is ISO9001:2008 certified.

## Automated Test Equipment

Our activity is mainly focused on the test of electrical / electronics / RF assemblies for space, defence and mission critical applications.

Some few examples of tests usually performed:





<b>RF</b>	<b>Oscillators and stability</b>	<b>Power supplies</b>	<b>Communication</b>
Gain – accuracy / linearity / stability / in-band	Accuracy	Input range	BER
Out-of-band Rejection	Long-term stability	Output load	Protocol testing
Group delay	Allan deviation	Overcurrent limitation	telemetry
Noise figure	TIE	Short-circuit withstand	
Isolation between outputs		Stability	<b>Environmental</b>
Spurs / Harmonics		Dips / cuts	Control of vacuum/climatic
Return loss		Harmonics	chamber
Noise power		Redundancy	
		Load share	

This list is not limitative, we are ready to implement any test specification.

## ***Your advantages***

You will choose GILLAM-FEI for your project as it will bring you multiple benefits:

### **A higher degree of confidence**

- You will rely on a team of skilled experts, with a solid experience on similar projects.
- Manage your project with less risk, when you have no in-house resources.
- Achieve peak performance and reliability of your deliveries.
- An automated test set is more reliable. Results are more repetitive and accurate.
- Mass connection tooling removes the connection errors and potential associated damages.
- Automated tests and reports generation remove the 'human' source of error.

### **Keep your schedule under control**

- Smooth the burden by paralleling the engineering force available for your project.
- Shorten the production cycle with automated test sequences.
- Long duration tests are performed 24h/7d.

### **Overall cost reduction**

- Get a tailored solution designed to be cost-effective.
- Respect of the programme milestones during design and production phases.
- Reduction of downtime due to test bench re-configurations thanks to mass connection tooling.
- Fewer defects and after sales services.