

# ATE

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

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

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

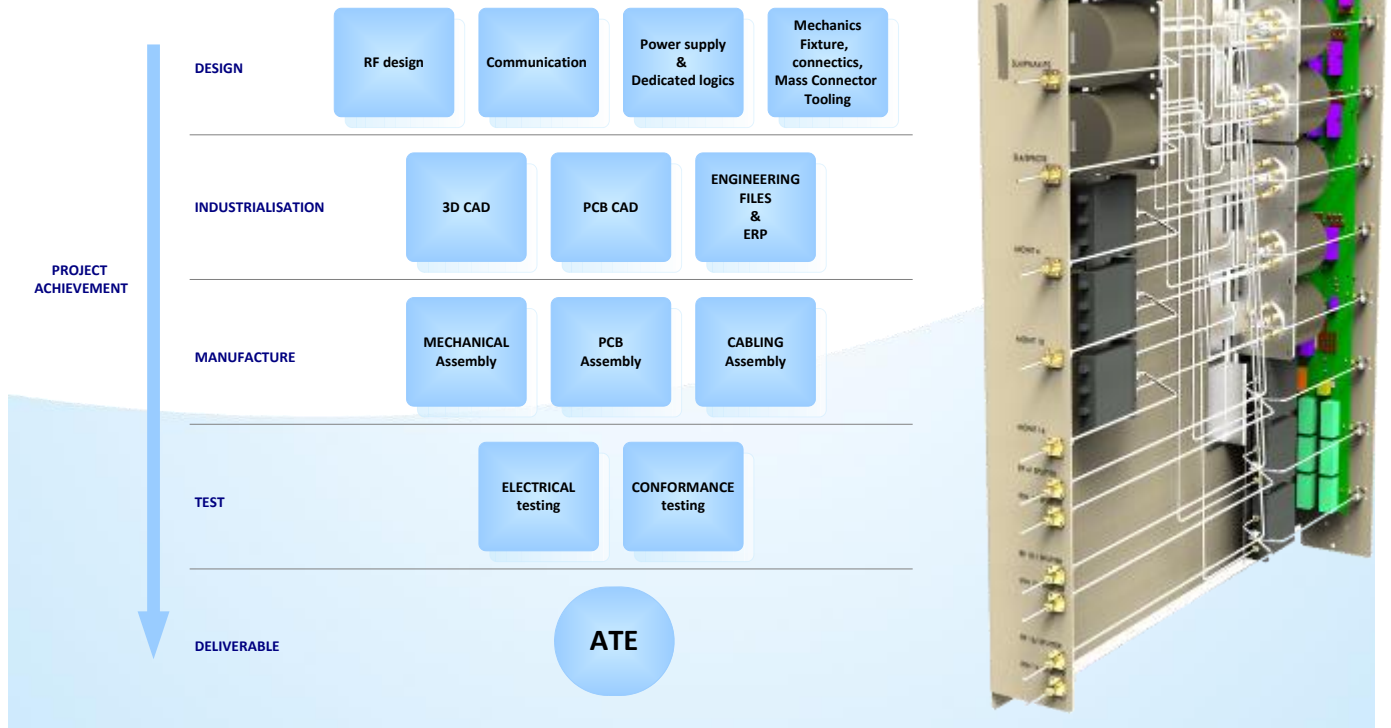
- to get high **confidence** in the **quality** of the deliverables
- to respect your programme **schedule**
- a **cost-reduction** on the overall project



**Gillam**  
FREQUENCY, ELECTRONICS & TELECOMMUNICATIONS

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## GILLAM Competences and resources



GILLAM 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 has in-house facilities:

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

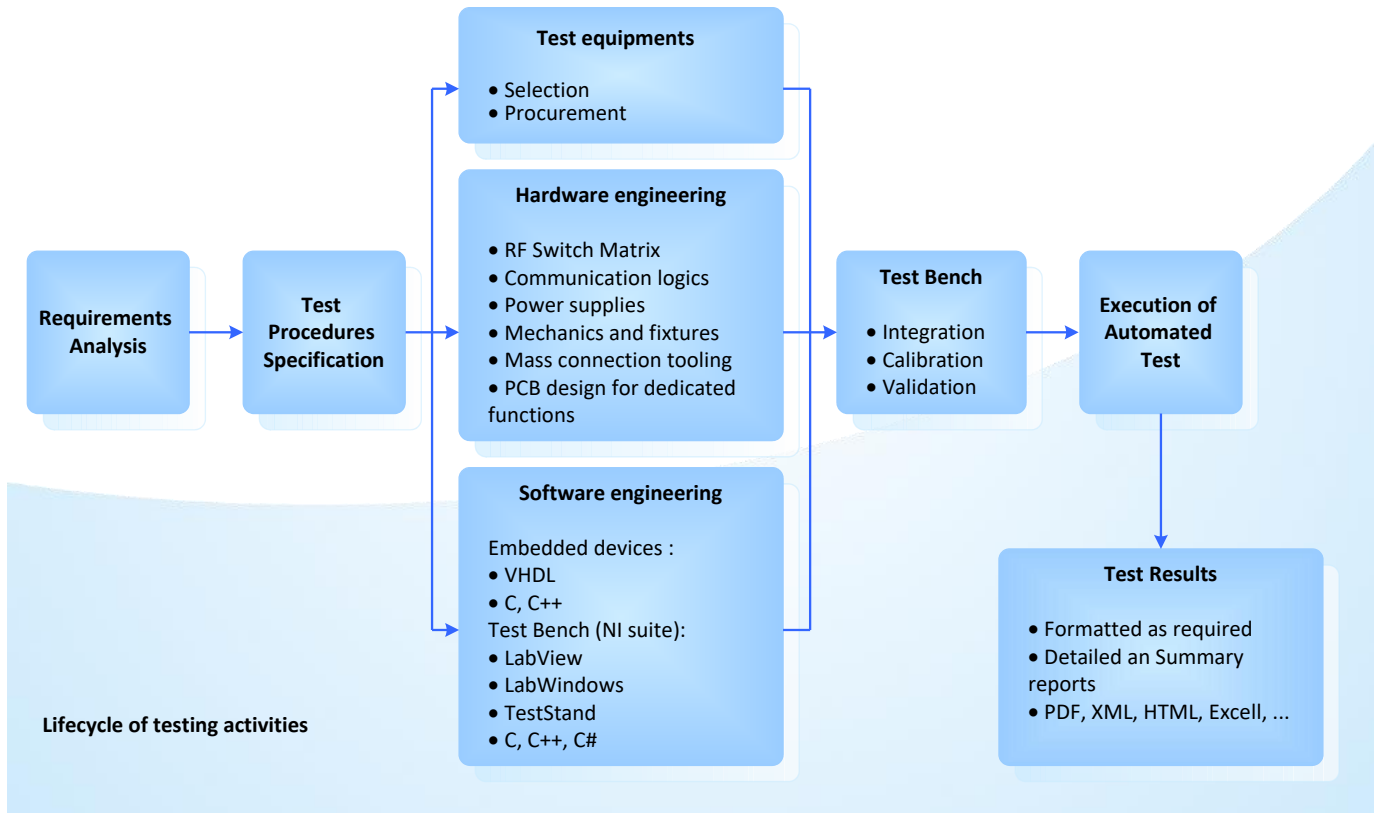
For the definition of the product industrialisation, our company relies on:

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

## Modular project management

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

From the specification to the conformance test report delivery, GILLAM 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:

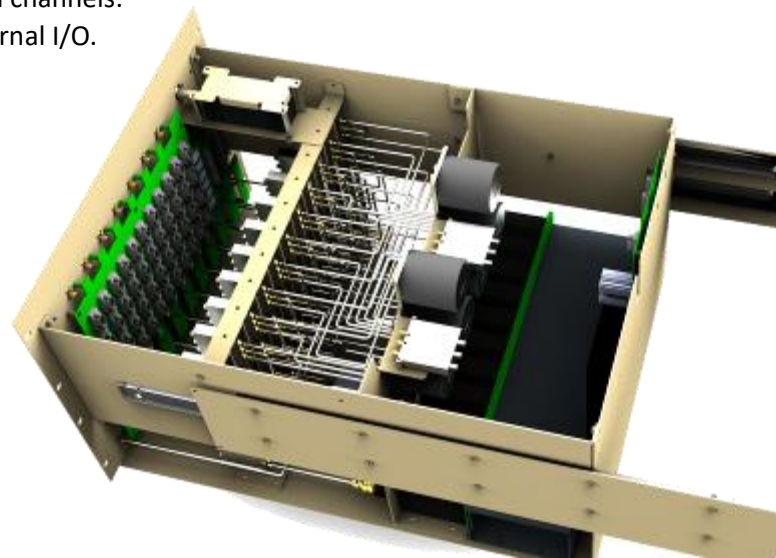
- simplify the connectivity to an organized plug-and-play solution.
- multiplex / distribute the signals and communication channels.
- Add dedicated programmable logics to emulate external I/O.

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:



#### **RF**

Gain – accuracy / linearity  
/ stability / in-band  
Out-of-band Rejection  
Group delay  
Noise figure  
Isolation between outputs  
Spurs / Harmonics  
Return loss  
Noise power

#### **Oscillators and stability**

Accuracy  
Long-term stability  
Allan deviation  
TIE

#### **Power supplies**

Input range  
Output load  
Overcurrent limitation  
Short-circuit withstand  
Stability  
Dips / cuts  
Harmonics  
Redundancy  
Load share

#### **Communication**

BER  
Protocol testing  
Telemetry

#### **Environmental**

Control of vacuum/climatic  
chamber

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

## ***Your advantages***

You will choose GILLAM 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.