TOOLING AND FIXTURING

TOOLING AND FIXTURES FOR ALL TYPES OF APPLICATIONS

MOD238TFEND

A Controlar company

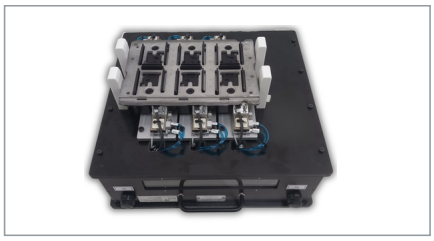
A quality solution for your specific fixture requirements, adjusted to your budget!

We have over 25 years of experience in developing and supplying tooling and test fixtures for a vast application field - ICT, functional test, flash programming, EOL testers, etc.

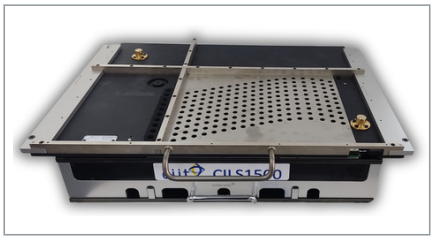
- Inline or offline, mechanical, pneumatic or vacuum operation - fixtures for all currently used handling systems in the market.
- From simple mechanical fixtures, with a few hundred probes and low production volumes, up to highly complex fixtures with thousands of probes, double side probing, double actuation, etc.

Your requirement is the directive for our design!

INLINE MODELS



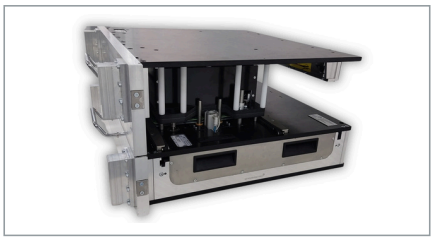
Custom fixture for specific InLine handler



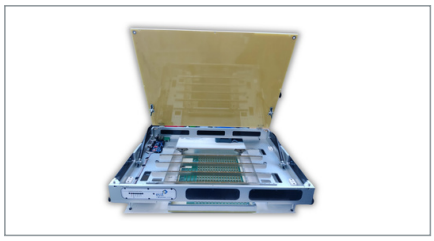
LEDs calibration fixture for EIIT CILS-1500 handler

ICT fixture for EIIT ILS-1200 handler

ICT/ISP/FCT fixture for EIIT ILS-700 handler



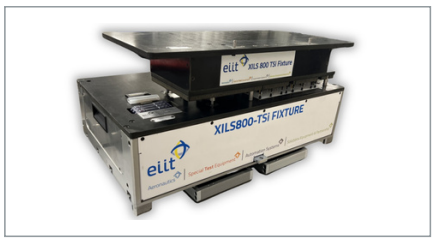
RF fixture for EIIT RFILS-1000 handler



ICT fixture for EIIT XILS-1200 handler

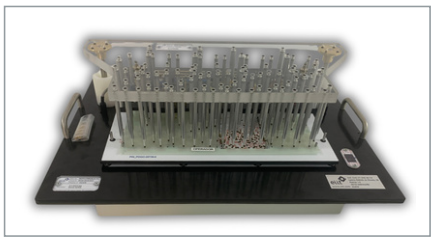
ISP/FCT fixture for EIIT MILS-700 handler

ISP/FCT fixture for EIIT XILS-600 handler

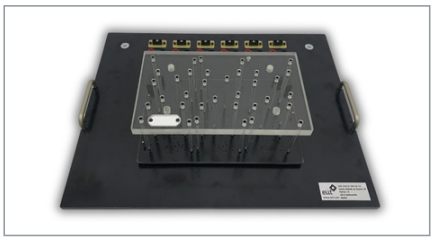


ISP fixture for EIIT XILS-800 & OLS800 handlers

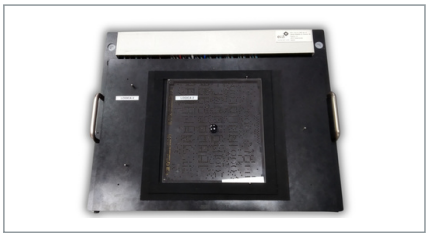
OFFLINE MODELS



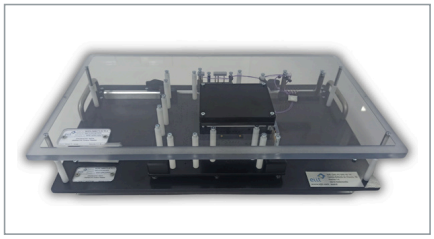
ICT fixture for EIIT RU-100 system



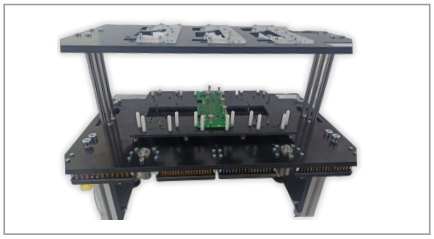
Specific FCT fixture for RU-030 system



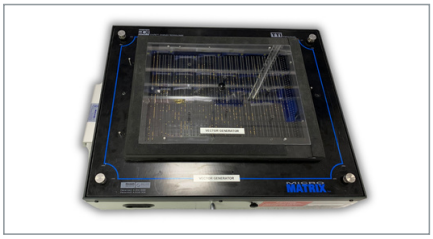
Specific FCT fixture for RU-060 system



Manual ICT/ISP/FCT fixture for Engmatec system

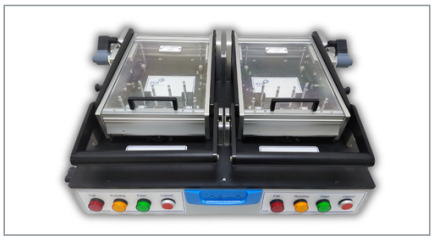


Manual ICT/ISP/FCT fixture for Engmatec system



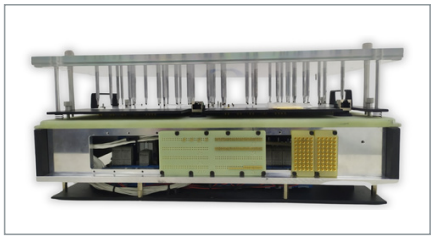
Manual vacumm fixture for Teradyne offline system

Manual Ingun FCT fixture

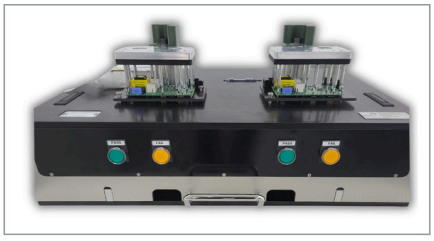


Manual Stand Alone Ingun FCT fixture (doble postition)

Manual Stand Alone Ingun FCT fixture (single postition)



Interchangeable Kit Ingun FCT fixture



ISP/FCT fixture for EIIT MPF handler

ISP/FCT fixture for EIIT Touch Capacitive handler

Executing customer specifications and project requirements

Your product is unique

- A bed of nails is a fixture that always requires customization as it is designed specifically to test your unique product.
- With our experience we have been able to standardize the process of customization, development and manufacturing, making it possible to decrease the lead times of simple and complex fixtures while maintaining high levels of quality.
- Our fixture specialists are always ready to discuss specific customer requirements, trying to find the best solution aligned with our vast experience and technical concept that will cover your needs.

Examples of project adaptation in order to meet customer requirements:

Lateral actuation with pneumatic cylinders or stepper motors.
Detection of mechanical interlocking.
Connector pin contacting (different levels of probe actuation).
Testjet/Opencheck/FrameScan sensors or other “made on demand”.
Design of customized parts to connect to specific product/costumer components. Signal conditioning with instrumentation amplifiers, frequency dividers, etc. Generation of stimuli and noise filtering. Development of specific PCBs for watchdog, interfacing, switching, etc. Discharge and protection circuits. Specific loads.

Turn-key Projects

Whether you require fixtures, or the complete turn-key project (fixture + application), we have the capability to:

- Develop ICT applications in several platforms, including MDA, Testjet, Digital/Hybrid tests, Boundary Scan, Functional tests, LED tests.
- Integrate customized circuits for signal conditioning, noise filtering, discharge, watchdog, loads, etc.
- Integrate aditional test equipment such as LED analysers, Flash programmers, communication devices, etc.
- Tune and support production start and ramp up at customer’s facilities.

With the integration of different ICT technologies:

Checksum
Teradyne

Testing ICT fixtures

Integration of different technologies

ISP (In-System Programming)

The programming of In-Circuit or In-System (ISP) devices eliminates limitations associated with traditional programming devices (on-socket or pre-programmed). ISP delivers benefits to in-board and system level design, manufacturing and programming processes.

LED Testing

An ICT system has the capacity of executing electrical tests (diode) – LED, but often optical analysis is required, which is out of the scope of ICT systems.
To overcome this, EIIT became an official partner of FEASA (www.feasa.com) and uses FEASA equipment to perform LED and displays analysis, fully integrated in ICT systems.

Programming of flash memories integrated in ICT Test, Functional Test or Boundary Scan.

Dedicated Flash Stations

- Inline or offline
- Gang programming

Dedicated Programmers vs. Universal Programmers

EIIT is an official partner of SMH – FlashRunner (www.smh-tech.com) integrating its universal programmers in numerous projects.

Available tools and state-of-the-art technical capabilities of our Tooling and Fixturing manufacturing plants

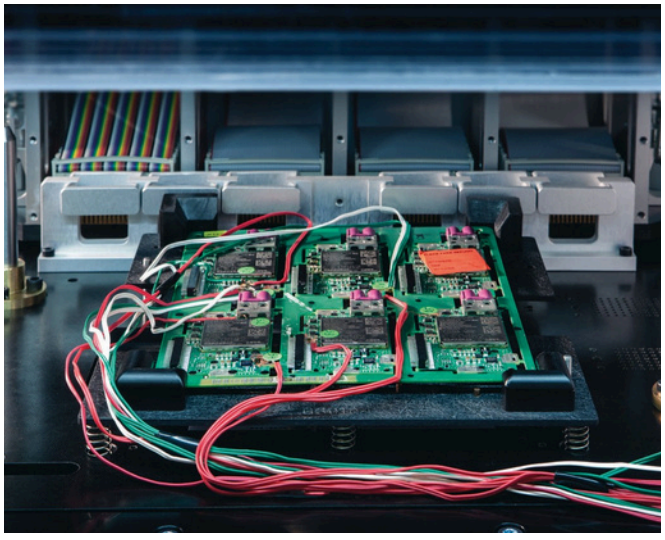
We are in a continuous search for innovative technology and the most advanced resources to offer the best prices, quality and technical capabilities.

Mechanical stress due to PCB deflection during fixture closing operation may have serious consequences. In order to address this issue, We use a complete set of tools for stress analysis.

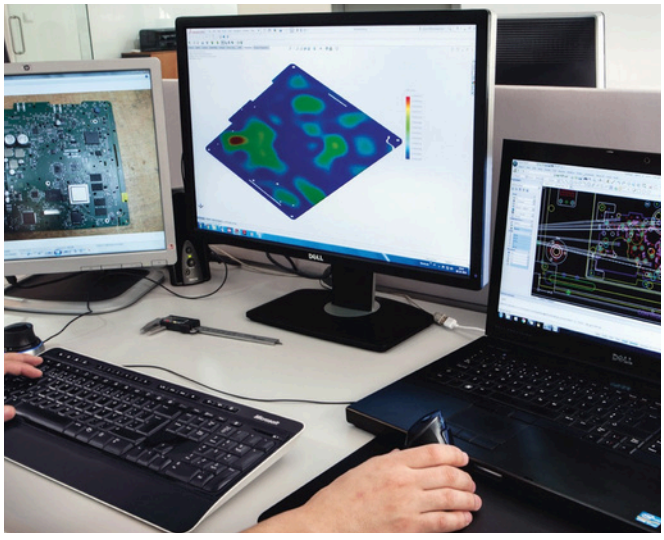
Software simulation by FEA (Finite Element Analysis) technique.
Prior to fixture build we execute FEA analysis and if necessary re-equilibrate probes/pushers on the more critical zones until the FEA simulation passes.

Strain gauge test using extensometer sensors and dedicated equipment from HBM.
Whenever requested by the customer, we validate fixtures using HBM measurement equipment and a “Golden Sample” product, which can be used for re-validation of the fixture (it is considered good practice to perform this test regularly).

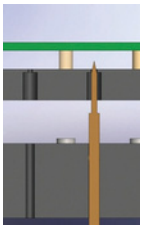
DUT prepared for Strain Test



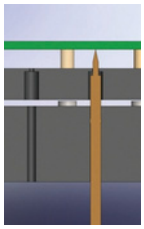
FEA Analysis



Testing with packed PCBA's layouts



Probe not actuated



Probe actuated

Precision Mobile Plate

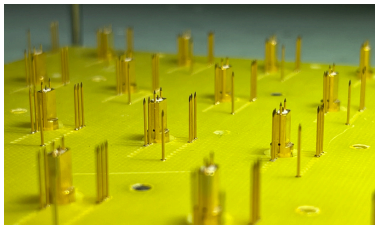
Sometimes, there is simply no space!

The test pad diameters or the distance between centers become really small for "standard" fixture manufacturing!
We dominate all current state-of-the-art technologies that may be required for each particular case.

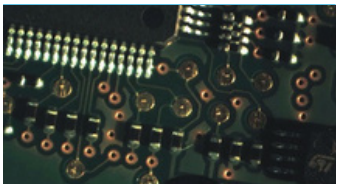
Precision Mobile Plates (Floating plate guiding)
Fine Pitch Probing

Precision Mobile Plate

Fine Pitch Probing



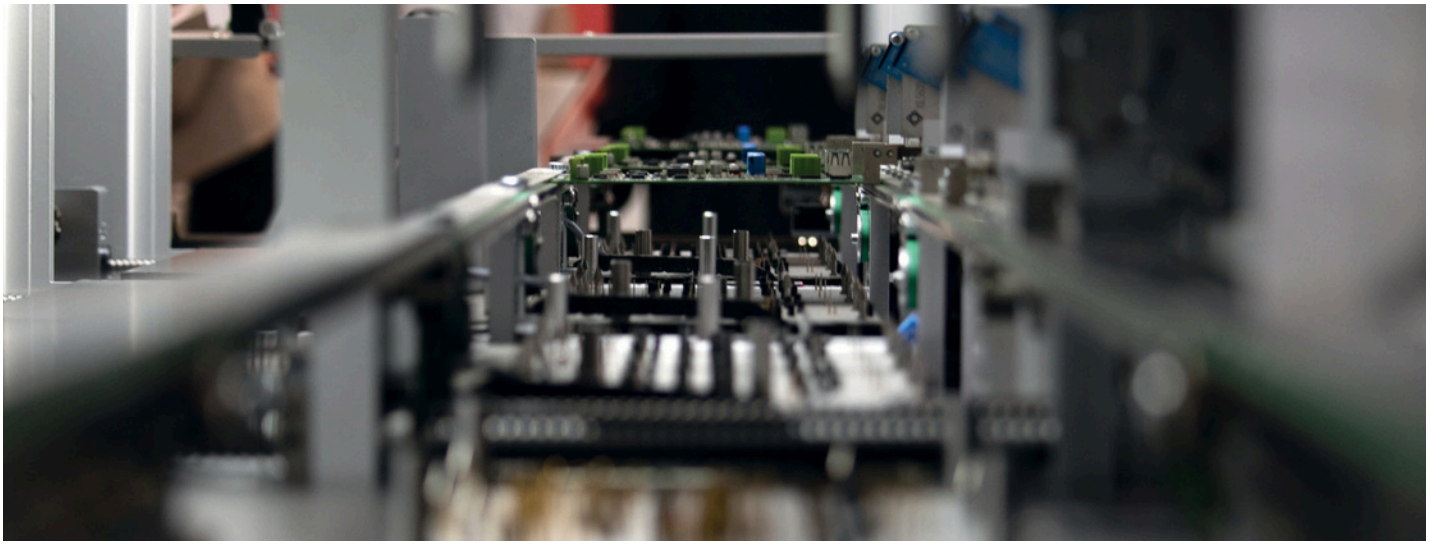
Fixture Validation – Probe Impact Analysis



Microscope PCB photo detail after probe actuation)

As standard in our fixture production validations, we use microscopes to execute Probe Impact Analysis on the PCB.

After fixture assembly but before wiring is initiated, a preliminar study is executed to validate probe plate drilling.
When the fixture is completely ready, a new verification is performed and the results are recorded and included in the fixture documentation.



Innovation, Quality and **Passion for Engineering.**

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Aeronautics

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IQNET RECOGNIZED CERTIFICATION

INNOVATIVE SME Valid until Sep 13th 2026

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