Small footprint, high test coverage

3030
Compact

MULTI-CORE SMALL FOOTPRINT BOARD TESTER

- True 4x Parallel Test: -75% test cost
- Small footprint
- High-speed parametric ICT
- Automatic application development
- Multiple test functions : ICT, FCT, OBP and much more

Compact. Powerful

3030 Compact is the new **bed-of-nails tester** designed to deliver a **cost-effective** test solution in a very **small footprint**. Modular and configurable with a complete range of instrumentation and receivers, **3030 C** provides **4x throughput** and **saves more than 75% of overall test cost** compared with standard test solutions, thanks to its **4-Core Real Parallel Test Core**. **3030 C** delivers **multiple test capabilities**, guaranteeing **100% coverage in a unique integrated** high productivity cost-effective system.

True Parallel Test

3030 C can be equipped with up to **4 independent Cores** - each one with independent CPU, local memory and instrumentation - able to **test in parallel up to 4 boards/panels of boards.** Compared to standard ICT testers, **3030 C productivity is up to 400% higher**, thus minimizing the cost of board testing.

75% test cost saving

With True Parallel **Multi-Core Architecture** the cost of test is up to 75% reduced. Just one system, one operator, one handling, one fixture and one PC to test **4 PCBs at the same time**.

PC-independent Architecture

With **SPEA 3030** PC-independent Architecture the test program is resident in the tester CPU and the **test speed is determined by the system CPU**. Antivirus and other applications running on the PC do not affect the test speed. Moreover you can change/update the PC at any moment, **without having to re-debug the test program**.

Forget field return

3030 C has been designed to help electronics manufacturers increase their **product quality**. By executing various test techniques with its high-performance instrumentation and stimuli, **3030 C** can **reliably find faults** undetectable by standard ICT testers.

Multi-device Parallel On-Board Programming

3030 C can be equipped with one or more **4-Core OBP 500 modules**, able to **program in parallel different-type components**. OBP enables to program specific functions (BIST or BOST), as well as to load the system software on the ICs during the test stage, so **cutting the programming time and cost**.

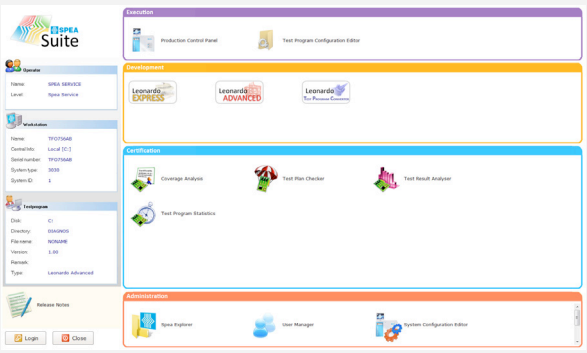
Precise contacting with SPEA's receivers

Tester and receiver are fully integrated, both designed by SPEA to provide a reliable cost-effective turnkey test equipment. Board contacting is safe and precise: when equipped with motorized receivers it is possible to **program the presser speed** according to the UUT characteristics. The descent is always **planar**, and it is also possible to program **different contacting levels**, so to **execute different tests on different areas** of the UUT. Direct **cable-less connection** between system instrumentation and fixture guarantees **signal integrity**. Finally there is **no need for compressed air**: **3030 C** is easy to be moved everywhere in the plant.

Hi-speed parametric ICT

SPEA **3030 C** Hi-speed ICT parametric test is able to measure each single component value in a very short time. Advantages: **programming time reduction** (the test is automatically generated), **test time reduction** (micro seconds of ICT test vs. milliseconds of FCT), **repairing time reduction** (automatic fault device identification).

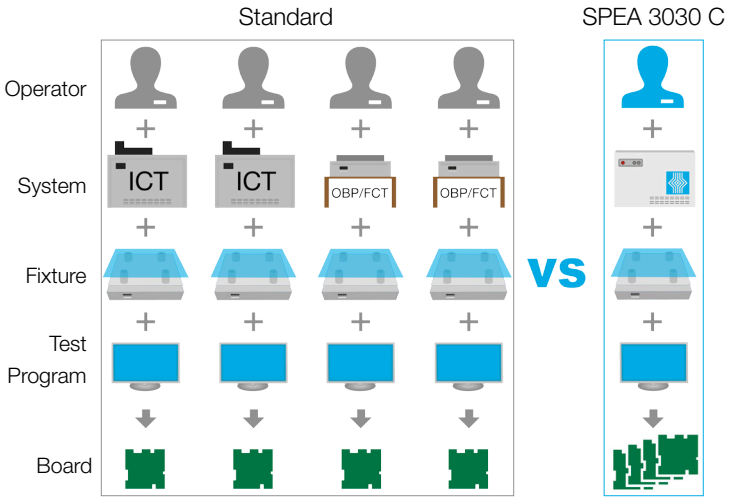
Leonardo OS. Easy. Fast. Self-programming



- **No need for test engineer** or expert technician to develop and debug the test program
- Automatic test program generation in **minutes**
- **Automatic** debug & tuning
- Automatic **test report generation**
- Automatic generation of the **file for fixture drilling and wiring**
- Automatic **CAD data recognition & import**
- Automatic execution of **Built-in Self-test** (BIST) to perform functional test in remarkable reduced time
- Automatic management of ECO: no need to re-generate and re-debug the entire test program at BOM change
- **User-friendly** intuitive graphical interface

4x Multi-Core

-75% overall test cost



Compared to standard test stations, **3030 Compact** board tester is much more **cost-effective**:

- 1 equipment, 1 fixture and 1 PC
- 1 multifunction test program
- huge space reduction
- 3x operators' cost spare
- 3x handling operations avoided
- reduced downtime risk
- unique spare-parts management
- single worldwide customer support
- 1 training

Parallel Test Capabilities

- Smart In-Circuit Test
- Power-on Test
- Functional Test
- Multi-Device On Board Programming
- LED Color & Intensity Test
- Boundary Scan
- Parametric Test
- Digital Test
- Open Pin Scan
- Built-in Self-test (BIST)

1:1 Cost-effective Per-Pin Architecture

Each **3030 C** channel is **configurable by test program.** Every nail can be used to perform any kind of test. This instrument/receiver **1:1 ratio** guarantees several benefits: faster test generation, easy ECO management, full flexibility.

Open Pin detection

3 test techniques can be executed for detecting **open pins** and other process defects in easy and fast way: Electro Scan, Junction Scan, Toggle Scan.

Analyze & optimize your process

QSoft is the **control software** developed by SPEA to **monitor**, **analyze** and **optimize** the production process.

- Integrated **data collection** from manual and automatic station
- Real time **production monitoring** and **analysis**
- Immediate **report generation**
- **Repair** station automator

FCT Functional test

3030 C testers provide not only functional test (FCT) at board level but also at **cluster level**. Programming is easy with Leonardo OS and by means of high level languages such as Microsoft C ++, Visual Basic, LabView. The integration of the functional test in **3030 C** testers is **cost-effective**:

- no need to buy external dedicated instrumentation (multimeter, relay matrix, DC generators etc...).
- No redundancy
- Reduced handling time and operator costs (all tests integrated in a unique test station).

Leonardo OS is able to support most of communication protocols (USB, CAN, Lin...).

Fully upgradable & customizable

3030 C can be factory equipped or **upgraded on field** with the instrumentation useful to satisfy the test requirements. It is possible to integrate **power instrumentation** (as programmable AC/DC generators, Active Loads, Power Matrix, programmable Power Supplies etc.) as well as third party instruments to increase test capabilities and productivity. Finally **3030 C** can accommodate a wide range of **fixture receiver** models, also from third party (Genrad, Ingun, Zentel, Augat Pylon...).

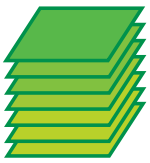
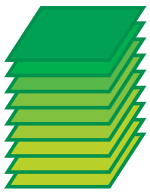
Boundary Scan: test inaccessible devices

The Boundary Scan technique is able to **test non-accessible nets**. The simultaneous use of Boundary Scan technique with SPEA **3030 C** ICT instrumentation allows to **increase the test coverage** reducing in the same time the fixture costs (virtual test points instead of real test nails).

Fixture & Test Program migration

SPEA Common Architecture allows Leonardo OS Test Programs to works with all SPEA board tester systems, 3030 and even Flying Probe. You can quickly **move your production** from one system to another, depending on the production needs.

3030 - Product Range

Model	3030 Bench Top	3030 Rack	3030 Compact	3030 Compact Extended	3030 Multimode	3030 Inline	3030 Tower
							
	Bench Top 19" modular tester	Zero Footprint embedded tester	Small footprint multifunction tester	Multifunction inline-compatible tester	High scalability multifunction tester	Lowest cost of test inline tester	Modular & customizable functional tester
Channels	512	1536	2048	2048	4096	4096	768
Productivity							

3030 Compact - Specifications

Main Characteristic

Test Core	
Cores number	up to 4
Configuration - Core x Channels	4x512 - 2x768 - 1x1536 - 1x1024 1x2048
Analog channels - Characteristics	100V, 1A
Digital channels - Quantity	up to 1024
Digital channels - Characteristics	0.5÷14V ±300mA
Instruments on Interface	
Parallel Test	Yes
Manual Loading Receiver	
Actuation	Pneumatic
Drawer Loading Receiver	
Actuation	Motorized
Interface	
Connectors	Yes
Zif Version	Yes
Environment Requirements	
Transport temperature range	-25°C ÷ +55°C
Environmental temperature range	15°C ÷ 32°C
Measurement temperature range	15°C ÷ 32°C
Humidity	≥20% ÷ ≤70%
System Specification	
Body main dimensions (L x W x H)	970x670x785 mm

Measure Capability

Resistance	
Range	1mΩ ÷ 1GΩ
Inductance	
Range	1µH ÷ 1H
Capacitance	
Range	0.5pF ÷ 1F

Test Type

Electrical test	
ICT - In Circuit Test	Yes
Open Pin Scan	Yes
Power On Test	Yes
Functional Test	Yes
On Board Programming	Yes
Open / Short	Yes
Boundary Scan	Yes
Other test	
LED Color & Intensity Test	Optional

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