Wireless Fixture Technology

... A fundamental improvement in the way fixtures are designed, ECOs are performed, fixtures duplicated and deployed.

Higher density more complex circuit boards complicate testing requirements. Smaller more tightly spaced test pads create a wiring nightmare for test engineers and maintenance personnel.

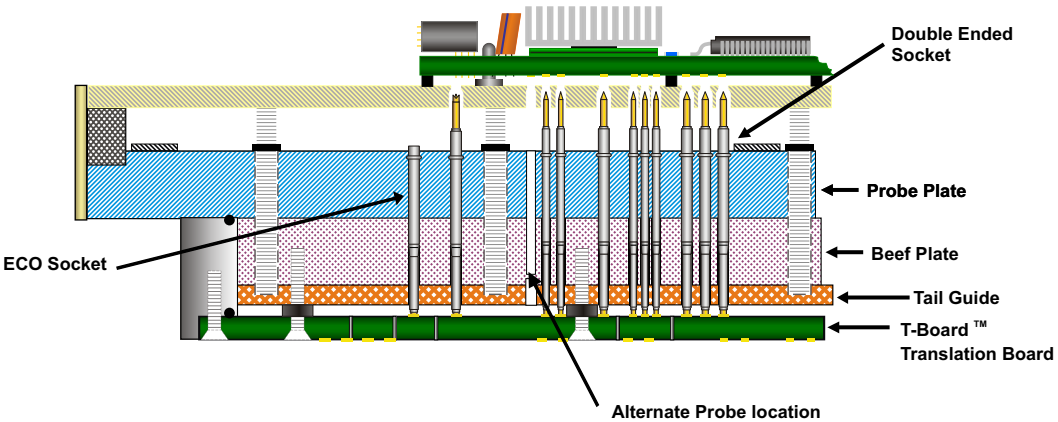
Wireless fixtures solve issues typically associated with the nest of wires found in long wire fixtures. Since 1991 Circuit Check has been replacing the "nest" of wires with a T-Board® translation board. The unique T-board® translator board is a multilayer PCB designed for each board under test.

Circuit Check's Intelligent Automated Routing of sensitive signals is controlled during our layout process so they are placed for optimal signal fidelity. This is accomplished by isolating the signal trace between ground planes, using separate power planes or adding "pull-up" resistors or "decoupling" capacitors on the signal traces.

The **reduced noise** from grounding and crosstalk allows faster signal rebound which is particularly **important in low voltage** applications.

Wireless version of a Teradyne TestStation Fixture

- Lower profile lighter weight fixtures
- Improved signal fidelity
- Easier ECO process
- Reduced test times



Cross section of a Wireless Fixture

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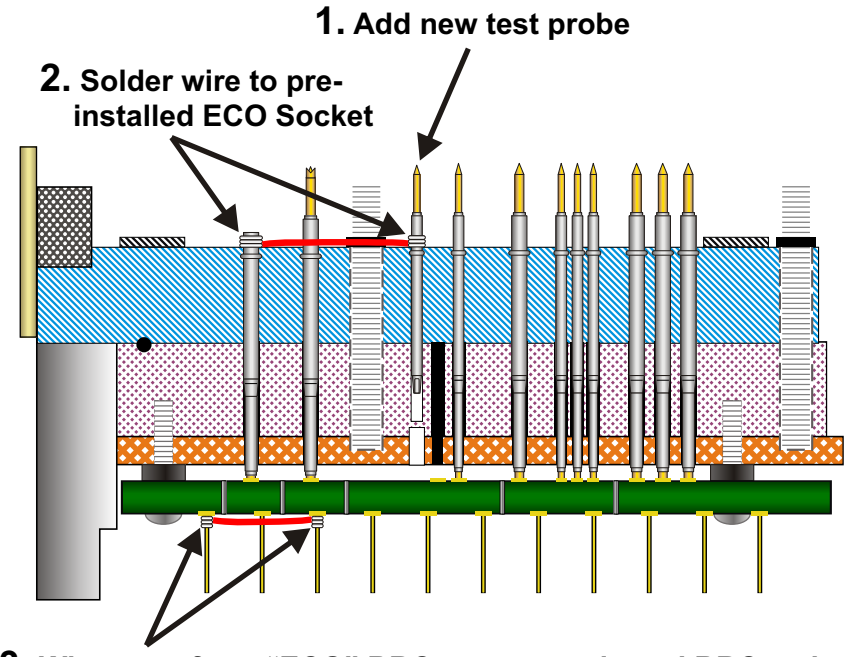
Performance Grade

Wireless Fixture Technology

Circuit Check has been designing and fabricating wireless fixtures since the early 1990's and has no equals in the industry. There is no equivalent product that can match the test performance advantages, reduced debug time, ease of ECOs, reduced maintenance, the ability to probe denser smaller targets and ultra high node counts.

The fixture ECO process is 1,2,3 ... and done



The ECO process is easier and faster than with the standard wired fixture.

Step 1 Add a "solder cup" socket to correct location.

Step 2 Locate the tester selected spare resource. Solder a 30 awg wire from the newly added socket, route that wire to the tester selected ECO location and solder to that socket.

If ECO is being performed on a GenRad or Spectrum fixture you are finished.

For Agilent fixtures remove the P-Pin alignment plate.

Step 3 Wire wrap a 30 awg wire from the "ECO BCR location" to the tester selected stake pin.

The ECO is now finished and the alignment plate can be reinstalled.

Wireless ICT fixtures are available for:

- Agilent
- GenRad GR228x Series
- Teradyne: TestStation LH, LX and TS88xx and Z18xx

Cleaner signals permit the test to run at a faster rate. **Programming of flash memory** devices can run exponentially faster, up to full test system speed.

Internal **fixture electronics** are neater, more compact and are **easily designed in** during T-Board® layout.

For proto-type boards, the enhanced performance of wireless allows fixture anomalies to be **quickly ruled out** and debugging to be focused on the UUT for design issues reducing overall debug time.

Quicker turn of complex digital tests can be achieved since **ground bounce** has been virtually **eliminated**.

Fixture size is kept to a minimum with a lower profile and is **up to 35% lighter in weight** than conventional wired fixtures.

Agilent wireless fixtures **never block resources** when compared to shortwire fixtures allowing greater test coverage.

Duplicate wireless fixtures provide identical test performance due to greater stability resulting in a significant **cost savings!**

Customers report **debug** times **reduced 10-35%**

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