



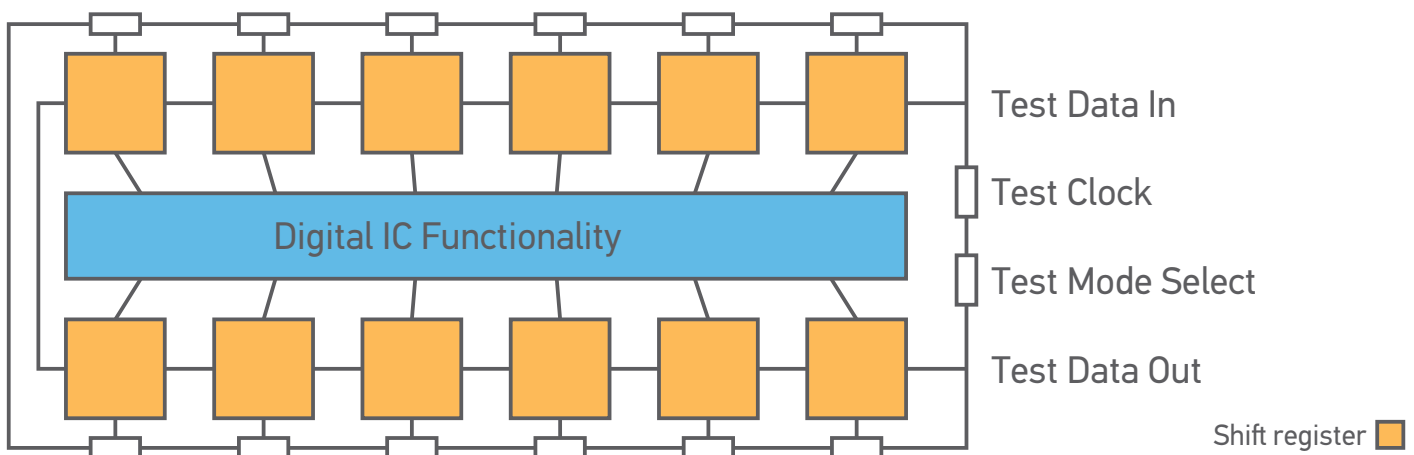
# Kitron

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## Boundary scan

Boundary scan test equipment uses a serial connection interface to connect to boundary scan compatible devices (CLPDs, FPGAs, etc.) on the unit under test and perform various inspection routines, including:

- ▶ Infrastructure test of boundary scan chain and test system
- ▶ Test of interconnection nets between scan points
- ▶ Memory buses and control signals tests
- ▶ Pull up and pull down tests
- ▶ Cluster tests
- ▶ Programming of CPLDs, FPGAs, flash memories, serial memories



### Compared to other test methods, a Kitron-provided boundary scan has some advantages:

- ▶ **No test points needed.** Boundary scan tests can be performed using a single 4-wire connector, which is a perfect feature for high-integration applications where placing multiple test points is simply not possible.
- ▶ **Needle fixture not necessarily needed.** This advantage lowers the boundary scan test development price compared to functional or in-circuit tests.
- ▶ Good fault diagnose on pin/net level assures that product repair will be performed with the lowest time possible and that scrap rate due to lack of diagnosis will be reduced to a minimum.
- ▶ **Thousands of signals and interconnections can be tested within a few seconds,** making boundary scan one of the most effective methodologies available today for testing and in-system programming.
- ▶ **Fast test development process,** which is often done by automated software.
- ▶ Being a structural test, boundary scan is independent of the internal product functions.

For some applications, a boundary scan test alone is sufficient to assure great quality. It also can be easily integrated with functional or in-circuit tests to increase test coverage, save board handling time or simply have all-in-one test equipment.