

New Opportunities with the Open Architecture Test System

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The Open Architecture Test System creates a lot of new opportunities. We will address new opportunities for:

1. Tester vendors
2. IC manufactures
3. Module vendors
4. Universities

The general view of the Open Architecture test system is shown in Figure 1. It is a distributed object environment under Microsoft Windows operating system. The test system itself has been defined as a modularized system with a module control software and a backplane communication library. The definition of modules includes digital modules, device power-supply (DPS) module, arbitrary waveform generator (AWG) module, digitizer module etc. An open backplane communication library accessed via C++ language based test program and a GUI test programming layer above C++ provides a generalized user's interface for the test system.

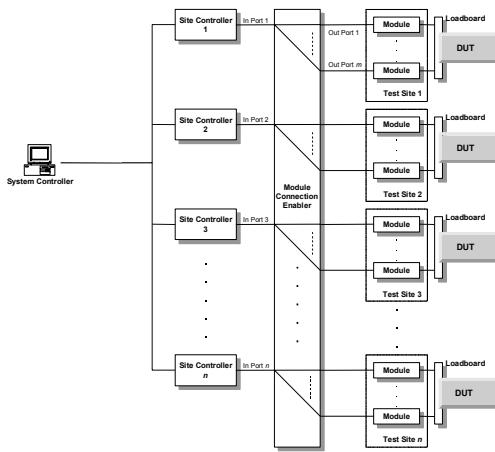


Fig. 1: A general view of the Open Architecture test system.

Opportunities for Tester Vendors:

Semiconductor Test Consortium (STC) has specified a number of new opportunities with OPENSTAR™ platform [4]. References [2], [3] and [5] also list some of these opportunities.

Opportunities for IC Manufacturers: Ultimate objective is to achieve a lower test cost. There are many factors that affect the test cost; we will mention couple of factors that alone are sufficient to illustrate the enormous new opportunities: Reconfigurability of the test system [2]; and (ii) parallel test [5].

Opportunities for Module Vendors: OPENSTAR™ platform allows to plug-in third party modules. This opens up new opportunities for the vendors of measuring instruments.

Opportunities for Universities: Because Open Architecture Tester changes the test paradigm, it redefines how testing is done. Thus, all the assumptions in use today become questionable. It creates new research topics.

Acknowledgement

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References

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