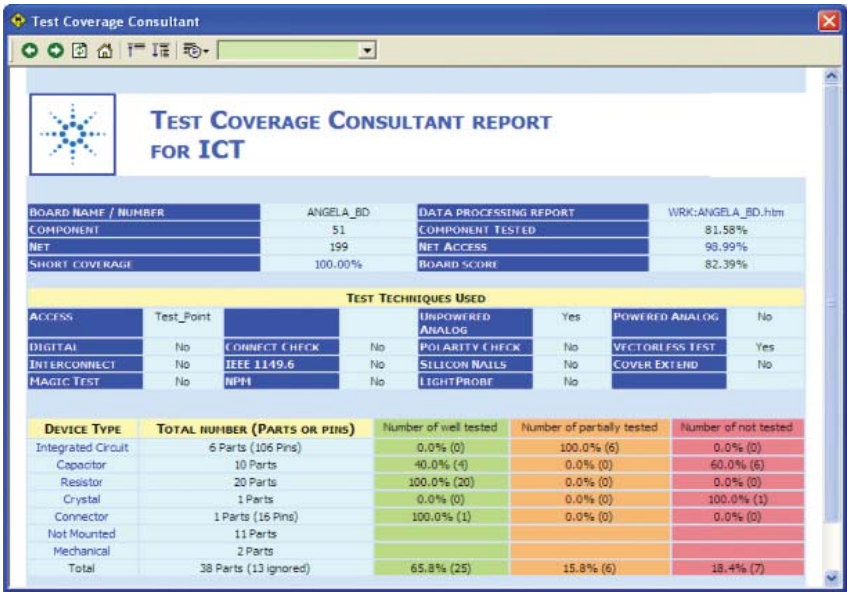
Agilent Test Coverage Consultant

Data Sheet

Test can improve product quality ... by striving to detect or prevent all faults on the product so that only good products are shipped.

- How do I know what is tested and what is not?
- How do I know how good the test is?
- How do I know if my tester is good enough to meet the test requirements?
- How do I define the optimum test strategy?
- How do I produce a complete test specification?



The Agilent Test Coverage Consultant (ATCC) is a standalone application that can be installed on your Windows® PC to enable you to quickly generate test coverage reports for your products.

Powered by Aster Technologies' Testway engine, the tool can objectively review the board CAD files or board test files to generate a comprehensive report using the PCOLA-SOQ metrics.

The Agilent Test Coverage Consultant is equipped with the knowledge of Agilent's In-Circuit test features so that you are able to analyze how the test coverage changes depending on the test features enabled. This allows you to determine exactly what coverage is available for the tester on your production line equipped with the latest test features.

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Usage

The tool can be used in various ways:

1. As a predictive tool to analyze the test coverage of a product early in the product life cycle based only on the CAD layout files
2. As a test analysis tool to report the actual test coverage of the product after the tests have been generated
3. As a test strategy analysis tool to allow the test manager to select the best test platforms that will provide the best coverage for his product
4. As a quotation tool to estimate the tests that can be generated for a product using just the board CAD layout files

Compared to other tools, the Agilent Test Coverage Consultant is an automatic and objective tool that provides a complete picture of the test coverage of your product using the PCOLA-SOQ metrics.

Difference between Basic and Advanced packages.

Feature	Basic	Advanced
Quad layout (Layout viewer)	√	√
Component Classificator	√	√
ICT coverage estimation	√	√
Test Program Quality Report	√	√
Color Expert	√	√
Quick Start reader	√	√
Siemens-TestExpert output	√	√
Mentor-CAMCAD output	√	√
Demille-GenCAD output	√	√
Schematic Viewer		√
Schematic Importer		√
Netlist Navigator		√
Load Agilent i3070 coverage	√	√
Load Agilent i1000 coverage		√
Load Agilent 5DX coverage		√
Load Agilent SJ50 coverage		√

Input Processors

The Agilent Test Coverage Consultant is able to accept a variety of CAD layout input formats. One of the following input processors needs to be selected for either the Basic or Advanced package.

There are also three CAD converter software outputs that are supported, namely.

1. CAMCAD
   - .cc
   - .ccz
2. FATF
   - FATF.asc
   - Labelset.asc
   - Device.asc
   - Nails.asc
3. TestSight
   - GenCAD format output

Using CAD converter applications, you can select the probes that you need for your product and after running the output from the CAD converter application through the Agilent Test Coverage Consultant, you can know how the coverage is affected.

Test Platforms Supported

The Agilent Test Coverage Consultant supports the Agilent in-circuit test platforms (*Medalist* i3070 and i1000 ICT systems) as well as the 5DX and SP imaging inspection systems. These processors are verified by Agilent.

How to Generate a Test Coverage Report

The following are the steps required to generate a test coverage report using the Agilent Test Coverage Consultant.

1. Input the board data
2. Provide the component information (part number, component type, value, tolerances, pin assignment, internal component structure, library models, BSDL file)
3. Place the probes
4. Select the test strategies for analysis
5. Generate the test coverage report
6. Review the results

Input the board data

For test coverage prediction ...

The output from the following CAD converters; CAMCAD, Test Expert and TestSight; bill of materials and schematics are essential information for an accurate test coverage prediction. As a minimum, the output from the CAD converter is required.

The output from the CAD converter should have the probes selected and component values updated prior to generating the output. These information will be taken into account during the coverage prediction.

For actual test coverage reporting ...

When analyzing the actual i3070 test coverage of a test developed board, the actual tests and the Agilent Coverage Analyst report is required. The Agilent Test Coverage Consultant will ready the Agilent Coverage Analyst report as well as other files in the board test directory to generate the full test coverage report.

When analyzing the actual i1000 test coverage of a test developed board, the board .atd file is required. The Agilent Test Coverage Consultant will generate the test coverage report based on the information in the .atd file.

Reading of schematics

The advanced version of the Agilent Test Coverage Consultant is able to digitize the .pdf format of the schematics file. This allows the views to be updated to the selected component even in the schematics. This allows users to get a better understanding of the surround components around the selected component.

Display of Netlist

The Agilent Test Coverage Consultant can also display the Netlist in graphical form. By selecting a particular node, the user can see the test access at this node, the attached components as well as the opposite node across the components. This gives the user another view of the surrounding of the component based on the selected node.

Coverage comparison

The Agilent Test Coverage Consultant will output the difference in test coverage between the predictive test coverage and the actual test coverage in an easy-to-sort excel sheet format. This allows the user to view the data according to how he likes, thus giving him greater analysis powers.

Easy to use, easy to analyze

With the above described tools, the Agilent Test Coverage Consultant is the best tool for your analysis of the predictive test coverage and the actual test coverage of the board that you want to test.

Contact your Agilent Representative to get a copy for you to evaluate!

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