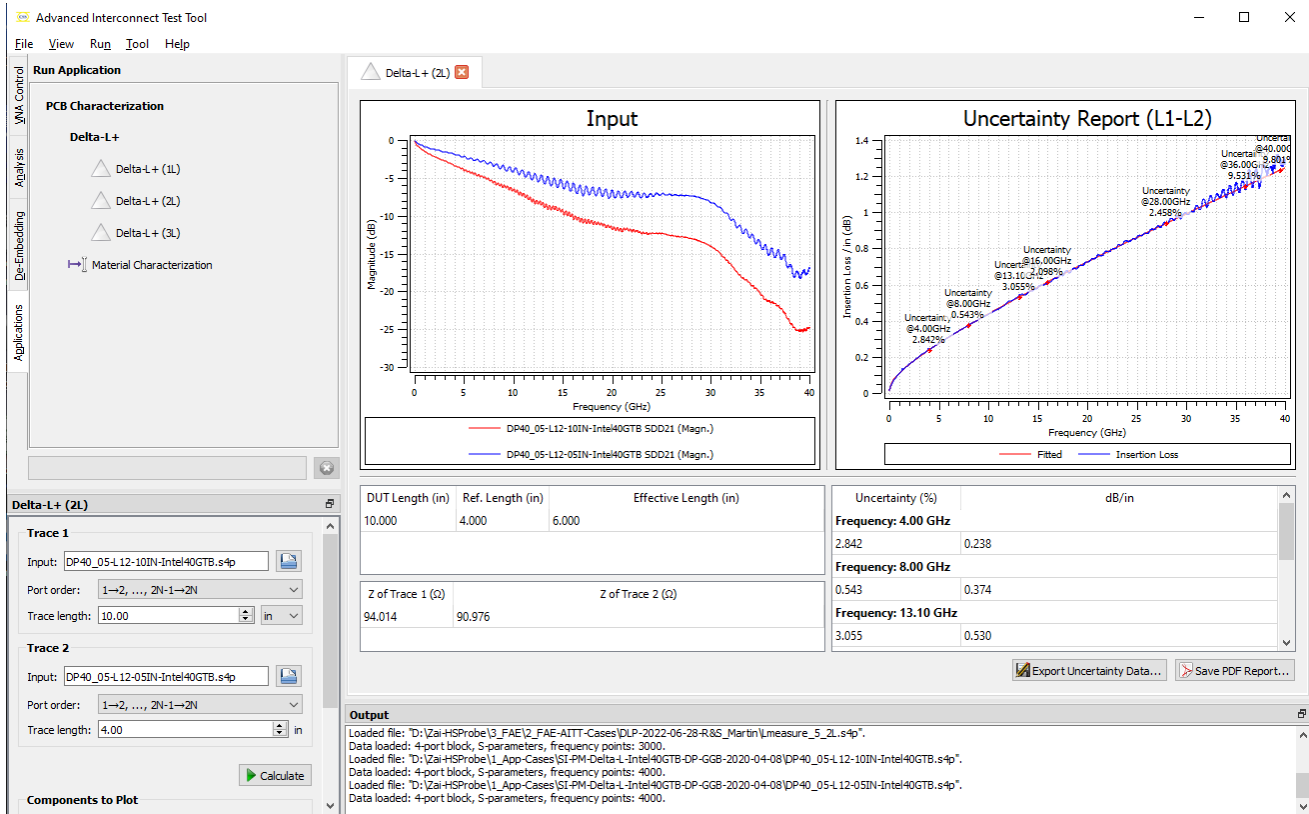


Advanced Interconnect Test Tool (AITT-DLP)

Versatile Tool for Delta-L 4.0 PCB Characterization up to 40 GHz



Delta-L 4.0 2L calculates the insertion loss and uncertainty at user-defined frequency points

The Intel Delta-L 4.0 methodology is designed to meet the distinct focuses and needs at different stages of PCB manufacturing. The AITT-DLP tool enables engineers to perform 1L, 2L, and 3L analysis with a user-friendly interface and fast runtime. Its script-mode support is essential to process large volumes of data in a manufacturing environment.

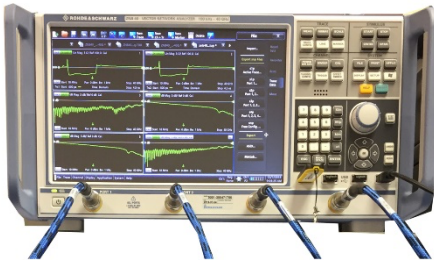
AITT-DLP (Delta-L4.0) Features

- **1L for high volume manufacturing:** variations of insertion loss, trace impedance, via impedance, and probe contact
- **2L for board quality validation:** insertion loss and impedance validation with fixture removal
- **3L for PCB material characterization:** DK/DF extraction, insertion loss, and surface roughness characterization
- **VNA Control:** control of a VNA locally or remotely by a separate computer.
- **Analysis:** powerful tool for frequency-domain, time-domain, and eye-diagram analysis.
- **Easy-to-Use:** User-friendly interface
- **Fast:** fast C++ runtime with simple installation and script-mode support.

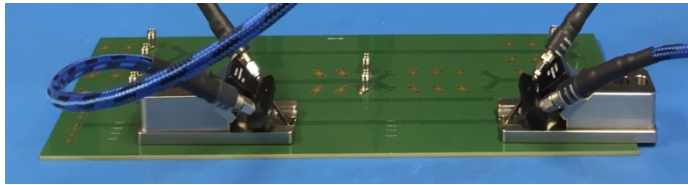
About AITT Tools

The Advanced Interconnect Test Tools (AITT) were developed by an experienced research team led by two IEEE Fellows, Professors J. Drewniak and J. Fan at the Missouri S&T EMC Laboratory. This versatile, easy-to-use AITT software has been used by many Fortune 100 companies.

Delta-L 4.0 Test Solution



Rohde & Schwarz ZNB40 VNA



PacketMicro 40 GHz DP-SS-401505DL Probes

Clear Signal Solutions works with Rohde & Schwarz and PacketMicro to develop and sustain the PCB characterization test solution for the Intel Delta-L 4.0 methodology.

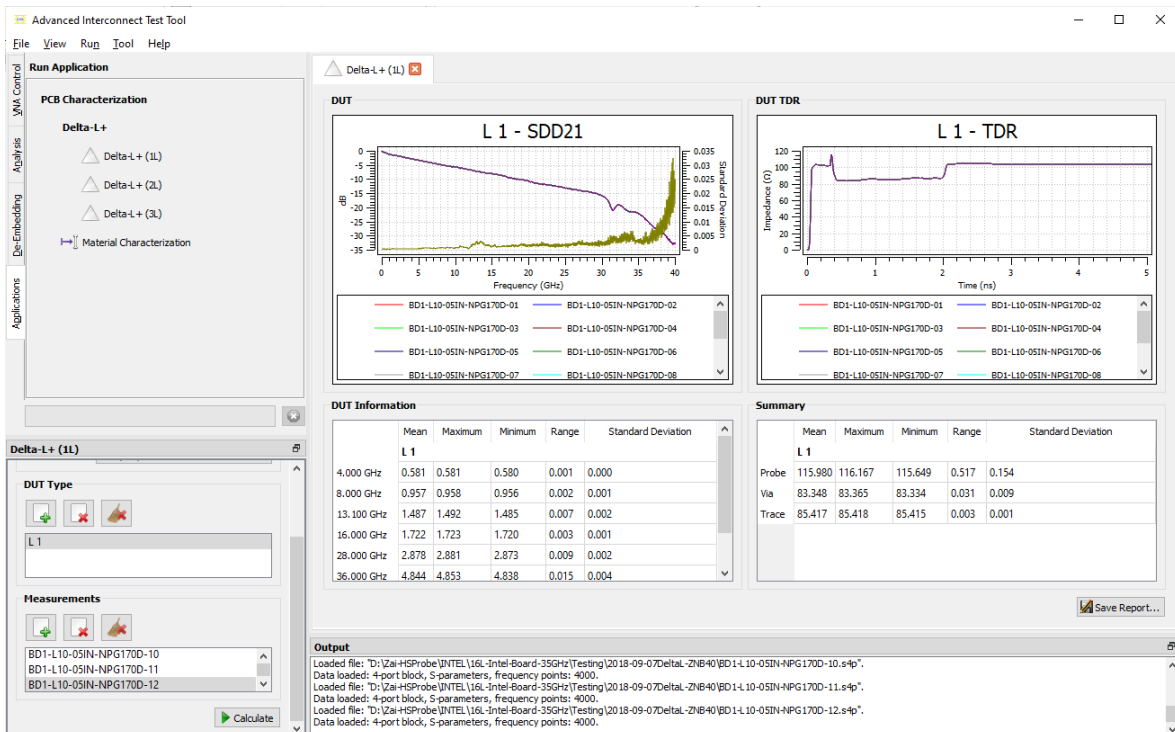
This test solution, designed to be used in a manufacturing environment, comprises:

- AITT-DLP Tool
- Rohde & Schwarz ZNB40 VNA (100 kHz to 40 GHz), and
- PacketMicro 40 GHz handheld probes.

The AITT-DLP tool guides a user to control the ZNB40 VNA to take measurements and perform 1L, 2L, and 3L data analysis up to 40 GHz.

The R&S ZNB40 vector network analyzer provides a versatile, one-box solution that can be used to perform S-parameter, TDR, and eye-diagram measurements for signal-integrity applications.

The PacketMicro rugged D-Probe series is specifically designed for PCB probing. Its strong beryllium copper (BeCu) tips are ideal for direct probing of test pads on uneven surfaces, such as solder bumps. With only two signal pins, the D-Probe can perform accurate, repeatable measurements without the need of nearby ground pads.



Delta-L 4.0 1L computes the range and standard deviation of insertion loss among multiple PCB boards