

DUT Electronics

047 Coax Interconnect Cycling Test Results



11/24/2021

Objective

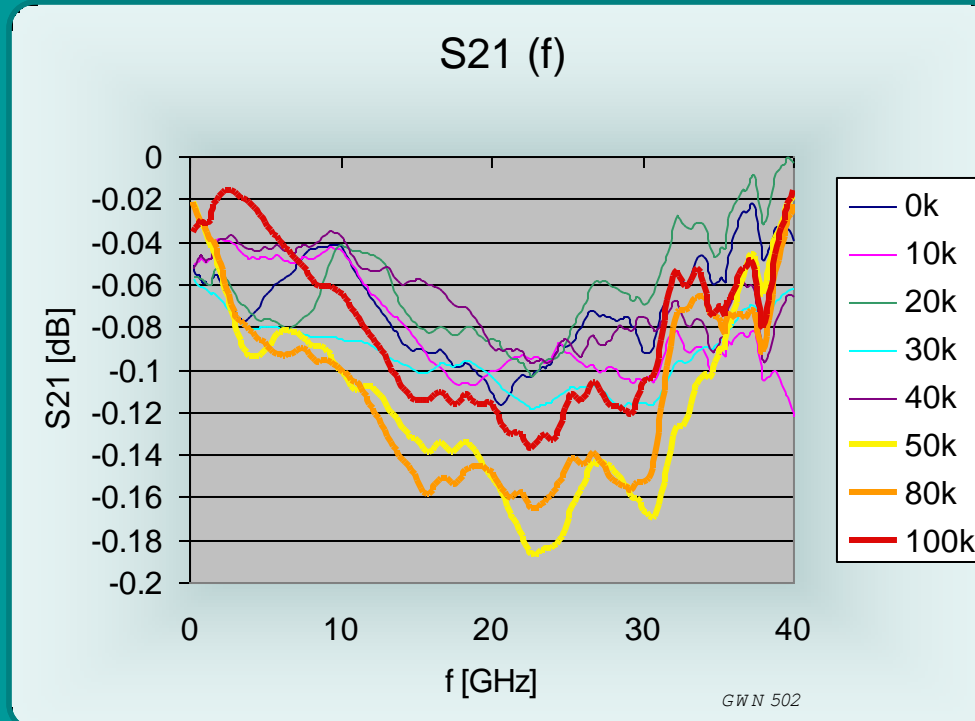
- Test socket
 - TDR
 - TDT
 - Insertion loss
 - Return loss
- Cycle mechanically to 100k

Setup

- Agilent HP8722C VNA option 10
- 50 MHz-40.05 GHz
- Effective risetime ~ 25 ps
- Custom DUT holder

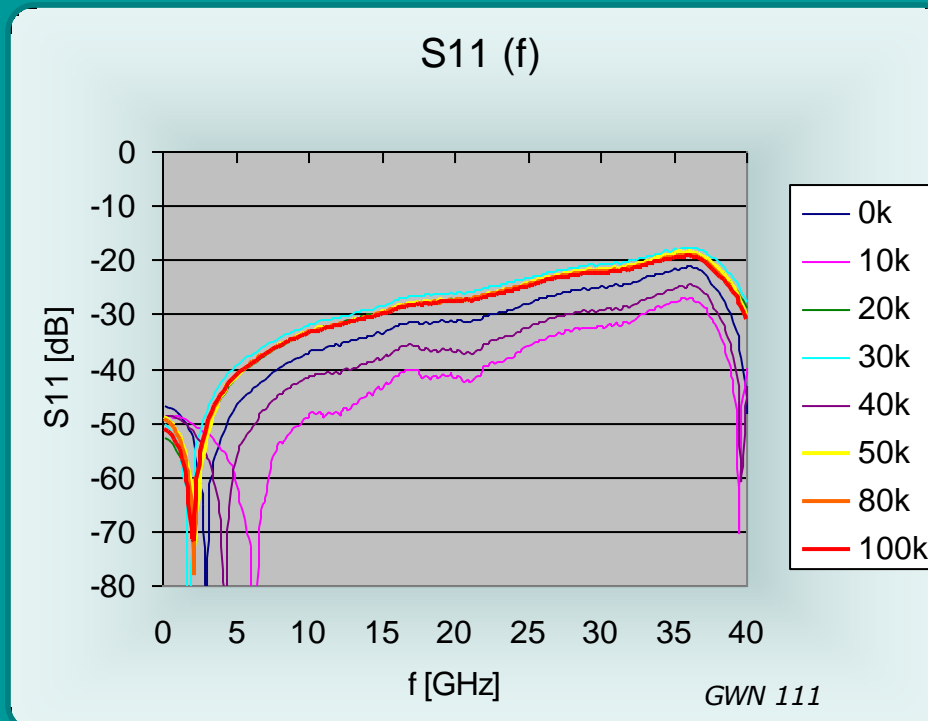


Insertion loss



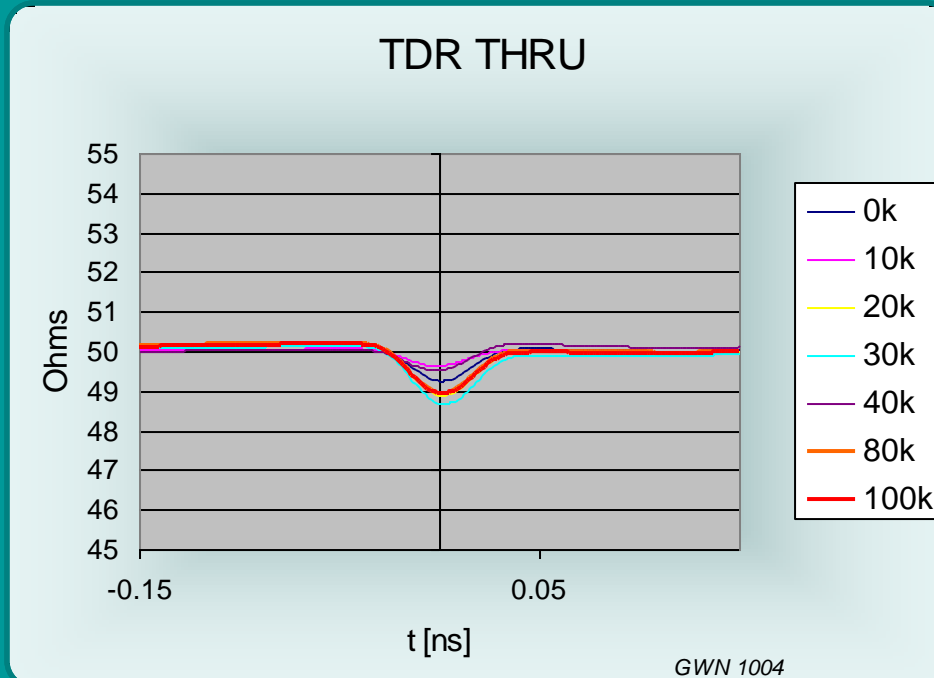
Some measurement to measurement variations must also be taken into account. Contributions may come from planarity and force of compression.

Return loss



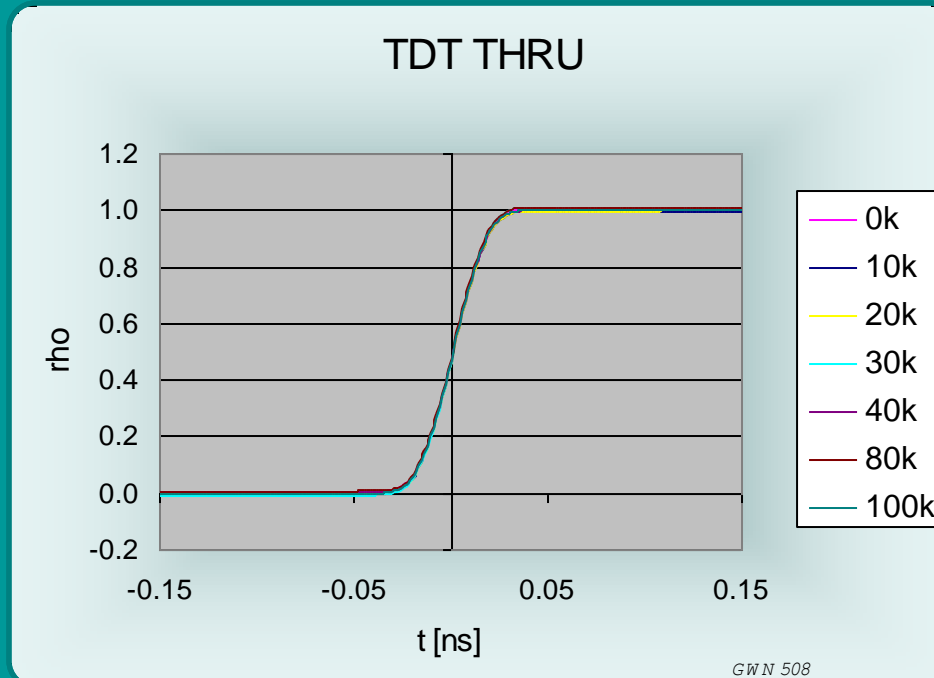
Some measurement to measurement variations must also be taken into account. Contributions may come from planarity and force of compression.

TDR



Some measurement to measurement variations must also be taken into account. Contributions may come from planarity and force of compression.

TDT



TDT is not affected noticeably by the small changes

Summary

- Variations in electrical performance found during cycling are small.
- Ni plated surfaces were used during cycling.
- After 100k cycles the sample showed a few metallic deposits around the center conductor:

