

Probe Life – Board Test Probes

The best way to answer the question: “How many cycles will probes last?” is best answered: “Results will vary.”

Smiths General Purpose probes were tested at time of design up to 1 million cycles, but that is rarely seen in customer applications. Smiths test against a flat gold plate, truly vertical, automatically actuated, with low controlled current, and in a clean lab environment.

Pointier tips, for instance, if against a hard surface, will yield lower cycles than a flatter tip with more area and with similar force. Higher force will also reduce probe life when comparing probe tips. Another key factor that varies by user is the performance expectations of the probes. One user may have a contact resistance concern; another might need merely a signal.

Typically users ask this question to know what to expect for maintenance cycles or to determine (and lower) cost of test. It's best to a) log the probe life and conditions currently seen in the real test environment and then b) determine how to increase life in with some reasonable controls.

Can you:

- Use less pointy tips?
- Use lower force probes?
- Better control compression distance?
- Improve cleanliness?
- Lower the current?
- Improve test fixture quality?

Smiths realizes this is a long answer, but probe life really depends on testing conditions and performance expectations. But by noting performance and taking controlled steps to improve, lowering cost to test is often achievable.

Smiths is here to help if you reduce your cost of test.

Contact us thru www.smithsinterconnect.com for questions and help.

All of our catalogued Board Test Products are available at:

www.mouser.com

www.alliedelc.com

Regards,

Smiths Technical Team

