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ESD/Latch-up Test Fixture Design Benefits

Although users can design and manufacture test fixtures for use on many Thermo Scientific™ ESD/Latch-up test systems, there are a number of items that should be considered when weighing whether to purchase our fixtures or attempt to design them yourself.

Our test fixture design process ensures:

- Adherence to our proven test fixture design guidelines:
  - Best routing practices and layer stacking for waveform performance.
  - Adherence to mechanical requirements and mechanical restrictions.
- Test fixture designs matched to your system's configuration. Prior to board designs, we check system configurations versus test fixture requirements, ensuring you'll get the most use from the available system channels.

Our test fixture qualification procedure ensures:

- Board fabrication is 100% free of any leakage (shorts) between contacts and or board layers. Low level leakage measurements are performed both before and after placement of the test socket(s).
- ESD waveform conformance between the longest to shortest paths, per industry standards. Both short circuit and 500 Ohm waveforms are captured on each socket of the test fixture during its verification procedure.
- Translation files (Scramble, License or Mapping file) are verified during the test fixture qualification procedure, as they are used during the leakage and waveform measurement tests above.

When we deliver a test fixture, we provide the following:

- Assembled test fixture – sockets/connectors mounted and 100% tested.
- Verified translation file (Scramble, License or Mapping file).
- Test data, if requested, for the Worst Case Pin pair, as specified by the industry standards.

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Our guarantees:

- Waveform compliance on test fixtures we design.
- Integrity of the pogo pad to socket connections (continuity, no shorts).
- Correct translation file implementation.
- Immediate test capability.
- Performance with a 1 year warranty.

NOTE: If we do not design the test fixture, we are unable to assist with implementation of the test fixture in the application, and should problems arise we cannot provide support to determine if it is the fixture or your software implementation. And, perhaps most importantly, we cannot provide any assistance should waveforms not meet the standards!

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