



This document outlines the typical information required to quote the design of a PCB functional test system. Additional information may be required in certain applications. Generally, the more information that can be supplied up front by the client, the more cost/schedule optimized the quote can be. Please feel free to contact us directly (508.967.0424) to review any of these items.

Technical:

1. What is being tested (assembly, PCB, etc.)? Please provide drawings (PDF, DXF, Gerber, schematics, solid models, Etc.). Digital pictures are also very helpful or an actual sample of the device (s).
2. What are the test requirements? What is being measured or evaluated? A client's test plan is very helpful if available.
3. How many points are being probed?
4. Are all points being probed from one plane? (i.e. single or 2 sides of PCB, edge connectors, etc.)
5. What are the size (diameter, etc.), minimum center-to-center spacing and configuration of the test points, (SMT pad, populated thru-hole, connector pins, etc.)?
6. Are there any special electrical considerations including:
 - a. Impedance matching or control
 - b. High voltage
 - c. High current
 - d. High frequency, differential pairs, length matching.
 - e. Parasitic loading (capacitance, inductance)
 - f. Timing
 - g. Interlock/safety
 - h. Temperature/thermal considerations
 - i. Communication to DUT (Serial, USB, Ethernet, etc.)
7. Are the boards individual or panelized?

9 EAST HOWLAND ROAD, EAST FREETOWN, MASSACHUSETTS 02717 USA
TEL: 508.967.0424 FAX: 508.967.0428 EMAIL: KEDMINSTER@ELECTROMECHANICA.COM
WWW.ELECTROMECHANICA.COM

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8. What alignment features (edges, holes, etc.) are available for positioning the DUT? What are the tolerances between the alignment features and the contact point targets?
9. What areas are available for clamping the DUT? Is shop air/vacuum available?
10. What are the throughput requirements? (parts/hr.) and what is the total expected life of the fixture?
11. Does the client require Electromechanica to integrate or interface their existing test equipment to the fixture or should the test equipment be supplied as a turn-key solution? Electromechanica prefers to develop test systems with NI LabView, PLC's and embedded systems although other options may be considered.
12. If the client is supplying the test equipment what connectors are expected on the test fixture? Are pin-outs predefined?

Other Considerations:

1. What is the required schedule for the project including:
 - a. Receipt of proposal
 - b. Award of contract
 - c. Design review
 - d. Delivery and sign-off
2. Where (geographically) will the equipment be used? This is important for service and support.