

that the government would replace MIL-P-55110 with IPC-RB-276. Well, as we all know, that never happened. The commercial world was stuck with a qualification program which did not work and was not applicable. In this new document series, we developed a qualification model based on what was currently happening within the industry. The "Qualification Assessment Process" section of IPC-6011 is based on self-declaration by the manufacturer.

The self-assessment qualification process, as currently used in the industry, is primarily for the initial introduction between companies (first date). Each buyer of PWBs comes to a manufacturer and asks what his capabilities are and how he verifies these capabilities. The capability information and verification desired by each customer is different, and once a match is made, history and performance become the key and the qualification assessment process is no longer necessary or useful. Many companies require a manufacturer to fill out a detailed survey form to obtain this self-assessment capability information. This technique is extremely time consuming (ask your QA manager), and may not provide all of the information necessary to make the "first date" happen. To answer this problem, an IPC task group was formed to create an all-encompassing company survey form for use by PWB manufacturers. There are other task groups currently working on this type of self-assessment profile for other segments of our industry.

IPC-MQP-1710 is the result of the task group efforts to streamline the information gathering process. This manufacturer's qualification profile uses self-assess-

ment information about a PWB manufacturer's site capability, processing and test equipment, technology specifics, quality program, manufacturing history, company information and data verification sources. It is a combination of the best from every survey we could get our hands on and, once filled out, should alleviate the burden of continually completing individual survey forms for potential customers. The eventual goal of this profile is for the information to be placed into electronic database format at the IPC (maybe even on the IPC's web site). This will allow companies to match their needs with appropriate suppliers using sophisticated database sorting techniques.

When developing IPC-6012, there were some definite goals the committee set for itself. The first was that all design requirements should be removed from the document. Specifications have historically stunted the growth of the industry by limiting technology and placing design requirements into the final specification. Another goal was to reduce the burdensome testing regimen found in older specifications. The question has always been asked, "why test for a finished product attribute whose manufacturing process is statistically in control?" This unnecessarily punishes a manufacturer who implements good statistical techniques, and raises the prices of the end-product. In IPC-6011, the committee allowed for the reduction of quality conformance testing based on the proper implementation and applicability of Statistical Process Control (SPC).

Here is a short list of the other "highlights" of the IPC-6012 document:

- The "as received" Microsection has been removed as mandatory in favor of "thermal stress" Microsections.
- Acceptable Quality Levels (AQLs) which have historically allowed discrepant product to be shipped have been replaced by a "C=0" sampling plan strategy which requires less samples but allows no failures.
- The Thermal Shock Test has been removed from the mandatory Reliability Assurance Inspection Table.
- AOI inspection was added as an acceptable means of inspection.
- No more minimums on dielectric thickness, conductor width and spacing.

If this all catches you by surprise, shame on you; you should have been there! These specifications directly affect you and your company. If you feel strongly—**get involved!** We welcome participation by every segment of our industry as the more participation we have, the better the document will be. I know budgets and time are tight, but if you and your company do not make a commitment to standardization efforts, your business may be left out in the cold. You can then be assured that no budget for anything will exist in your company at all. These specifications can no longer be ignored, as they are gaining worldwide acceptance. As the IPC's Rigid Board Committee Chairman, I invite **you** to participate. If you want to know how, contact me (see the fine print on the previous page).