Bare Board Introduction for Quoting and Purchasing Professionals

Do your company's products require bare printed circuit boards? If so, does your purchasing department include someone who understands the printed circuit board manufacturing process and, more importantly, the terms and definitions that come along with building them?

History has shown that the printed circuit board is one of the most difficult components in the bill of materials (BOM) because no two of them are alike. They cannot be mass produced and put on a shelf ready for delivery. Each one of them must be custom engineered and that takes either a lot of experience or a good playbook!

My name is Matt Kehoe, and I am a 40+ year veteran in the bare printed circuit board industry. I began my career in 1981 working in a printed circuit board facility learning the basics of manufacturing printed circuit boards.

Over the years I have worked as a sales manager for major printed circuit board suppliers. Through that experience I have had the opportunity to work with many purchasing departments, big and small, commercial and military, some of whom had personnel with bare board knowledge and, well, some with very little to none.

Over the years I have been able to use my experience to help educate purchasing teams that do not have bare board experience. I have developed a lunch and learn curriculum that has proven to be highly effective and useful to individuals ranging from newcomers to those with experience in bare board manufacturing. I frequently make this presentation over lunch so that the team members who need to be there can attend.

This tutorial focuses on the information needed to initiate a quotation, get it through the engineering process at the bare board fabricator, and thus receive a clear and concise quote with any exceptions and or assumptions listed for the buyer's convenience. I will cover the terms and definitions that will inevitably come up during the quotation and purchasing process so that the buyer can better understand items being discussed and thus determine who in their organization would be best to respond.

Including but not limited to:

- Via holes
- Blind vias
- Buried vias
- Controlled impedance
- Different material types
- Tolerances
- And other terms and definitions that come up in the dialogue required to buy and sell printed circuit boards.

I will bring different technologies bare board technologies so participants can have a "hands on" look at various board types.

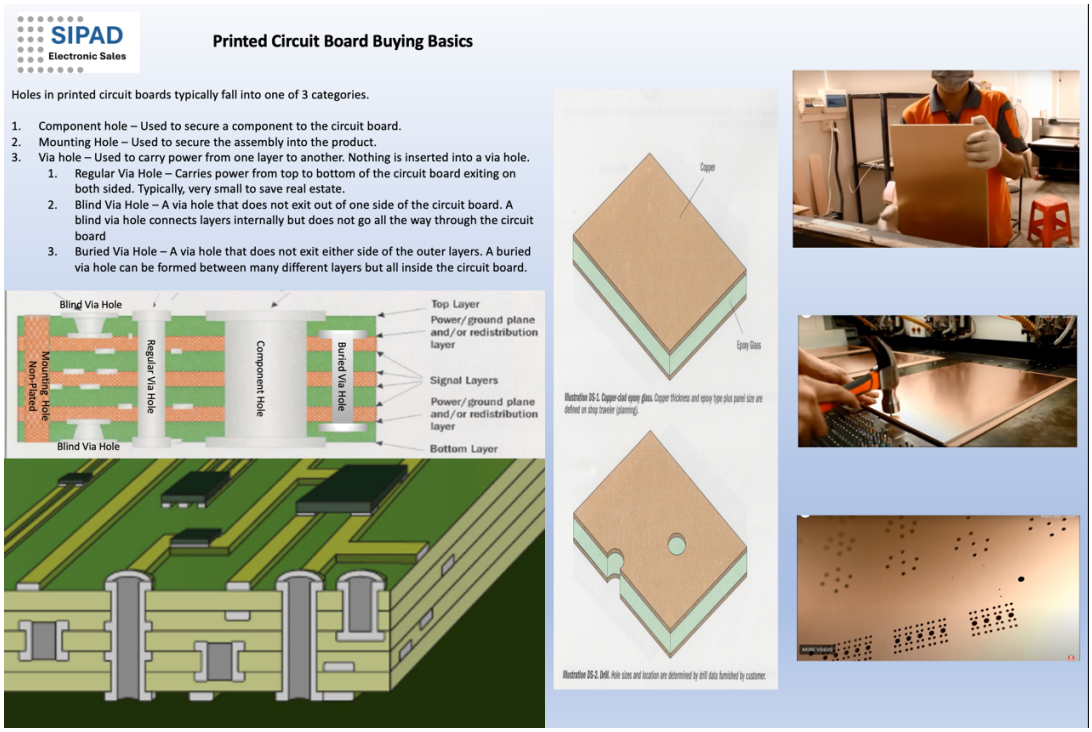
This course will last approximately 60 to 90 minutes and, again, can be presented as a lunch and learn opportunity. Each participant will receive a printed copy of the presentation with a notes section for each slide. Finally, a digital copy will also be provided.

This will not be a sales pitch, nor will it be overly technical, and the intention is that even less knowledgeable team members will not find it confusing. The tutorial is designed to help the non-engineer understand the process that the bare board fabricator goes through to generate a quote and eventually produce the board.

Sample of the terms and definitions section.

Minimum Conductor Space – The smallest distance between any two adjacent conductors, such as traces, on a board.
Net – a set of pads that are to be connected electrically on the board.
Netlist – List of parts and their connection points which are connected in each net of a circuit.
NPTH – Non-plated through-hole.
Pad – Metallized area of the board for connection and attachment of electronic components.
PCB – Printed Circuit Board.
Pin (pinout) – part of an electronic component which is soldered to the board.
Pitch – the center-to-center spacing between conductors, such as pads and pins, on a board.
Plastic Leaded Chip Carrier (PLCC) – a component package with J-leads.
PTH (plated-through hole) – a plated hole used as a conducting interconnection between different layers or sides of a board

Samples of the presentation;



Detailed Graphics **Photos from a bare board facility**

Our intention is to make this an ongoing and ever-growing presentation that will continue to include new technologies and terms needed by purchasing professionals in the future.

If interested, please contact Matt Kehoe at SIPAD Electronic Sales. 404-680-7977
matt@sipadssd.com