

JANUARY

What's On the Horizon – 2012

As the world heads into the next stage of economic recovery, how is the electronics industry going to change? Will the heavy trend toward offshoring begin to reverse itself and who stands to benefit the most? What technology may drive this shift? Our January issue will tackle these questions and more, with articles and columns from industry leaders from around the globe.

FEBRUARY

Materials

Printed circuit materials have to satisfy many physical, mechanical, thermal and electrical requirements. From laminates options and the bewildering catalogue of material properties and characteristics, how are the right materials chosen? What are the latest advances in dielectric technology and how can they help the designer achieve required performance levels? What are the consequences of over-specification of materials on the manufacturability and overall cost of the PCB? Our February issue answers these questions.

MARCH

Standards, Specifications & Approvals

Standards and specifications are fundamental to the PCB industry both locally and internationally. Standards harmonize fabrication processes and safety requirements and define reproducible levels of product quality and reliability. However, several questions must be addressed: Which standards are relevant to PCBs? Who is responsible for writing and enforcing them? The March edition of *The PCB Magazine* navigates the maze of standards.

APRIL

Imaging Processes

Since Paul Eisler patented the first PCB sixty years ago, the term “printed” has taken on a new context in present-day PCB technology. What methods are used for creating the patterns that end up as complex electrical interconnections? We'll explore a variety of issues, such as the pros and cons of photolithographic and digital techniques and how successive images are aligned and kept in register. These are just a sampling of the many questions surrounding imaging processes that *The PCB Magazine* sets out to answer.

MAY

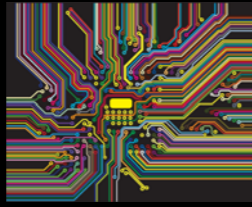
Finishing Processes

The PCB fabricator's role is to produce interconnecting substrates for electronic devices. Then, it is the assembler's task to gather the component parts and join them through soldering processes. How can the PCB fabricator facilitate the assembly process, promoting solderability where solder joints are required and resisting solder where they are not? What are the capabilities and limitations of PCB finishes? What are the latest developments? See the May edition of *The PCB Magazine* to discover the answers.

JUNE

New PCBs

“We always have done it that way!” is a familiar chorus regarding printed circuit interconnection. Today's PCB technology has developed largely through a series of incremental improvements. New techniques and materials may have emerged along the way, but the fundamental interconnection concepts have remained nearly static for many years. Will traditional interconnection methods satisfy the requirements of future developments in electronics? The June edition of *The PCB Magazine* looks beyond the horizon at how alternative approaches may influence the future.



JULY

PCB Long-Term Reliability

Long-term high reliability is mandatory in PCBs for military, aerospace and medical applications, and increasingly in automotive electronics. In a world where the PCB fabricator can expect to face the blame for failures further on down the supply chain, how can he ensure that his product will perform its intended function for a specified time under stated conditions? What design, material, process and quality assurance factors influence reliability? These issues and more in the July issue of *The PCB Magazine*.

AUGUST

Technology Roadmaps

Where is the electronics industry headed and what will drive key PCB technology? Where should you be directing your capital investment and process development to stay competitive? Industry roadmaps combine information and experience from OEM and EMS companies, suppliers, academic and government sources and trade associations, both national and international, to forecast trends and define future manufacturing needs. Learn more in the August issue of *The PCB Magazine*.

SEPTEMBER

Flex and Rigid-Flex *PCB Technologies and Trends*

They bend! Flex and flex-rigid circuits have myriad applications in just about every sector of the electronics industry, where their ability to be formed into complex three-dimensional final geometries, or to withstand multiple flexing cycles during their functional life, adds a third dimension to the concept of the interconnecting substrate. The September edition of *The PCB Magazine* focuses on the latest developments in materials and manufacturing processes for flexible circuits, and explores novel design and application opportunities.

OCTOBER

Regulations *Impact On PCB Fabrication & Assembly*

Arguably, a main function of government is to create rules, but what rules are necessary or desirable, and what benefits do they bring to society and industry? Environmental legislation worldwide is causing a total rethink of product design and manufacturing processes. In the October issue of *The PCB Magazine*, we explore the effects and consequences of government regulations on the PCB and electronics assembly industries.

NOVEMBER

Manufacturing Disciplines

Does the PCB industry really need to implement management techniques such as Lean Manufacturing or Six-Sigma in order to work efficiently, eliminate waste and deliver superior customer service? Alternatively, are these techniques simply filling a void created by a lack of common sense and intelligent business practice? Why wouldn't all PCB manufacturers want to improve their efficiency and reduce costs, in an unforgiving market place? Read the arguments for and against in the November edition of *The PCB Magazine*.

DECEMBER

A Look Back

The PCB Magazine strives to keep our readers up-to-date with what's current, and our December issue provides a detailed sampling of the hottest trends in the PCB industry from 2012. Our year-end issue takes a glance back to pivotal industry highlights, with contributions from industry heavy-hitters and experts who lend their unique perspectives to everything PCB.