

2012 SMT Magazine Editorial Calendar

It's hard to know what to expect next in this industry, but we're offering the 2012 Editorial Calendar, created by the **SMT** editorial team with input from trusted magazine contributors, to give readers a snapshot of what to expect from **SMT Magazine** throughout the year. If a subject is important to you and your business, chances are **SMT Magazine** will cover it.

We are dedicated to providing our readers with relevant information necessary to educate, inform and inspire. If you have any comments or questions, e-mail editorial@smtmagazine.com.

JANUARY

Outlook 2012 & Markets: What's Hot, What's Not?

The electronic products marketplace is tough to navigate, no matter the state of the economy. Some markets may even be shifting faster than technology can evolve. Who's buying what product now, and in which regions? What legislative and regulatory ramifications affect companies moving into new markets? Start the New Year right—learn what's hot, what's not, what's next and how you can make markets work for you.

Key Topics:

- End markets—military/aerospace, medical, automotive, computers, industrial, test, consumer & entertainment
- Emerging markets
- Geographic markets—Europe, Asia and the U.S.
- IPC APEX Expo product preview

Notable January Events:

- SMTA's Pan Pacific Electronics Summit
- MTA Webtorial: Tin whiskers

FEBRUARY

Automation

With Foxconn Electronics' announcement that the company plans to add one million production robots to its manufacturing lines within the next three years, this is a good time to take a look at what's possible in automation. Is the uptick in robotic automation a hint of future unemployment?

Key Topics:

- Current state of assembly automation
- The future of automation

Notable February Events:

- IPC APEX Expo Conference & Exhibition
- 11th Annual Flexible Electronics and Displays Conference and Exhibition

MARCH

Test & Inspection

Be it dealing with challenges brought on by high-speed components or addressing the loss of test access with new test methods, **SMT** aims to provide readers new ideas and solutions. We'll access our knowledge base of industry veterans to reveal the latest industry standards and practices. Learn when, where, why, how and how much testing is required for electronic products.

Key Topics:

- Testing issues in mil/aero applications
- Compliance testing
- Developments in JTAG/boundary scan
- How to fight tin whiskers
- Why reliability matters

Notable March Events:

- IPC Conference on Electronics Assy: Soldering, Assy & Inspection
- The International Symposium on Quality Electronic Design (ISQED)

APRIL

Military & Aerospace

Building assemblies for a military customer can seem like a never-ending battle. In addition to the technical aspects of building a high-reliability product that can withstand heat, vibration, salt water and radiation, EMS companies must also contend changing certifications and regulations, and a massive counterfeit component industry doesn't help. Controlling the production flow around the world is a challenge—how do you protect your products?

Key Topics:

- Counterfeit components
- Design and product security
- Reliability issues
- IPC Intellectual Property Management Standard IPC-1071
- Certification updates: ITAR, Milspec and ISO
- Military markets: NATO, Allies and the U.S.

Notable April Events:

- NEPCON China 2012
- SMTA Webtorial: Solder pad cratering

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MAY

Medical Electronics

In medical markets every circuit board is mission-critical. The assembly of high-reliability PCBs is a process that stands alone, but faces unique challenges and solutions. This issue aims to cover everything from process requirements to new manufacturing strategies for such boards.

Key Topics:

- Microelectronics
- Advanced medical electronics assembly
- Certifications required—TYPE I, II and III; ISO; and FDA
- Medical markets—diagnostics and implantable devices

Notable May Events:

- SMTA ICSR - International Conference on Soldering and Reliability
- IPC Introduction to EMS Training and Program Management

JUNE

Thermal Management

Electronics manufacturers learned long ago that it's much safer to be proactive with thermal issues throughout the product development process rather than face such issues when it's too late. So why do thermal issues still get the "Rodney Dangerfield" treatment?

Key Topics:

- Board design: Keeping heat in mind
- Challenges and solutions in assembly process
- Heat management techniques
- Heat dissipation materials—components and laminates
- Thermal interface materials (TIM)

Notable June Events:

- IPC EMS Training II

JULY

Advanced Packaging

Companies are dealing more and more with advanced packages: Chip-scale packages, BGAs, stacked chips, through-silicon vias—the list goes on and on. This month, we tackle the subject with an array of articles on advanced packaging.

Key Topics:

- Ball assembly at the wafer level
- New packaging strategies
- Advanced packages for mobile electronics
- Printing difficult PCBs

Notable July Events:

- IPC EMS Leadership Training and Certification Exam

AUGUST

Purchasing

Always a crucial issue in assembly, purchasing is the focus of this issue. What are the advantages and disadvantages of purchasing from: 1) a local manufacturer; 2) a manufacturer who outsources from overseas; or 3) a broker? Learn how to specify what you want and ensure that what you want is actually what you need.

Key Topics:

- Purchasing options—understanding price versus value
- What you want versus what you need
- Building relationships with trusted sources

Notable August Events:

- SMTA Webtorial Final Finishes and Their Compatibility with Lead-Free Assembly

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SEPTEMBER

Cleaning and Coating

The removal of post reflow flux residues is an integral part of the electronic assembly industry. When CFC-based solvents were pushed out, much of the commercial electronic assembly industry adopted a no-clean process, eliminating residue removal. Today, largely due to assembly miniaturization, increased component density and higher-temperature, lead-free alloys, cleaning has once again rejoined the assembly process.

Key Topics:

- Using conformal coating as an underfill
- How clean is clean?
- Measuring the efficiency of cleaning processes
- Case studies in conformal coating—problems and remedies
- Coating over flux residues and assessing compatibility of solder paste residues with conformal coatings
- Electromigration and electrical leakage issues

OCTOBER

Green Electronics

The focus of this issue is RoHS, REACH and WEEE compliance and current legislation, waste water management and many other environmental concerns during manufacturing. OEM and EMS providers must be proactive and keep up with the latest changes in various countries to remain at the top of their game.

Key Topics:

- Conflict metals update
- Defining green and green-washing legislation watch
- Energy conservation
- Sustainability issues
- The latest concerning REACH, RoHS and WEEE

Notable October Events:

- SMTA International (Florida)
- SMTA and MEPTec Medical Electronics Symposium

NOVEMBER

EMS Industry

The November issue of SMT Magazine will look at the players, the markets and the future of the industry. How will the industry look five, 10, even 15 years from now? We'll ask industry experts to weigh in.

Key Topics:

- How many EMS players will there be in the future?
- Is a return to the vertically integrated OEM possible?
- TOP 20 EMS companies profiled

Notable November Events:

- SMTA IWLPC- International Wafer Level Packaging Conference
- IPC EMS Training II

DECEMBER

Year in Review

Ah, another year comes to a close. Each December, SMT likes to look back and examine the year's movers and shakers—the companies, products, technologies, and news that made the industry stop and take notice.

Key Topics:

- Best shows/conferences of 2012

Notable December Events:

- IPC EMS Leadership Training and Certification Exam