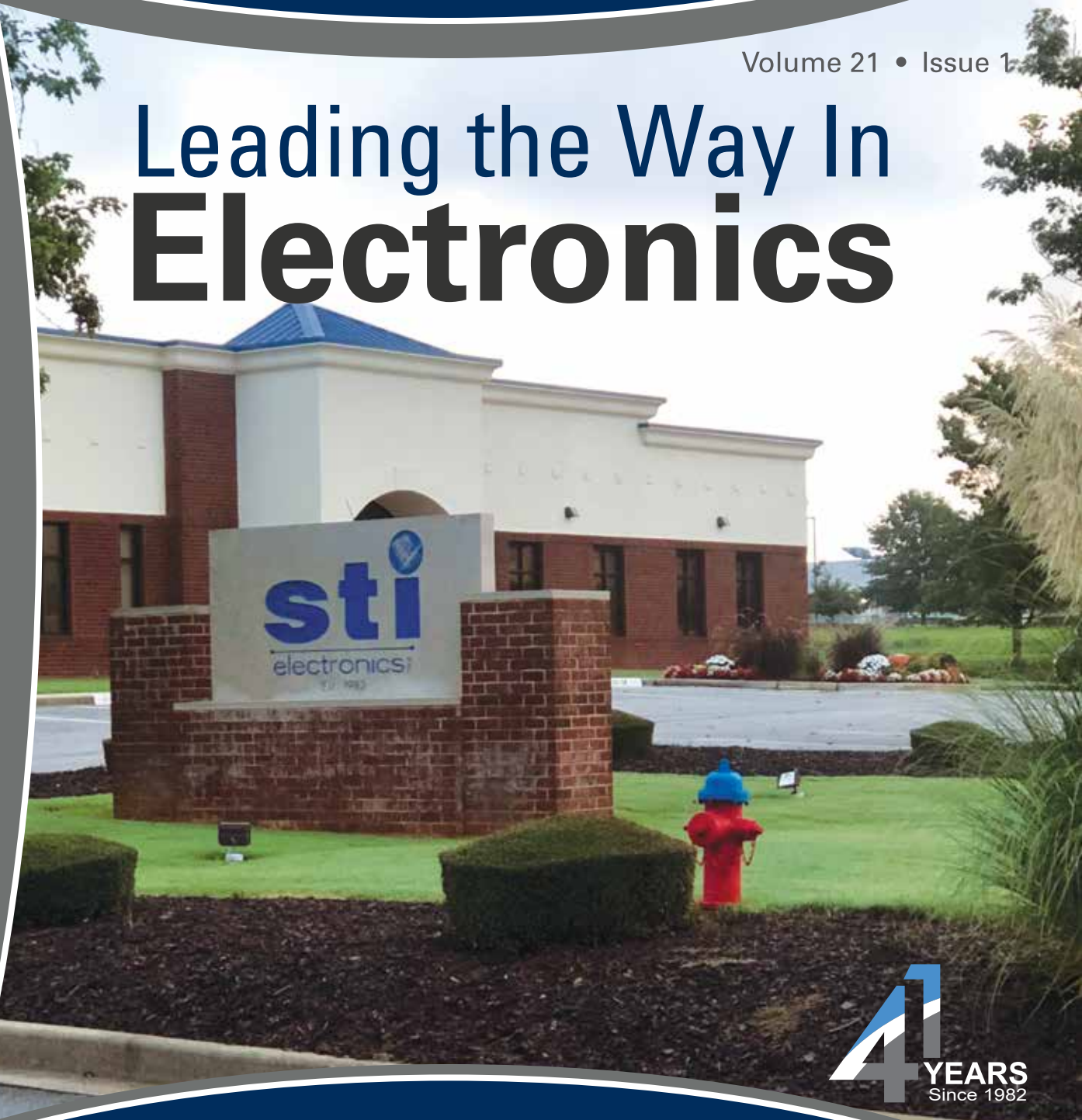




Volume 21 • Issue 1

Leading the Way In Electronics

NEWSLETTER



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Since 1982



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Dave's World

MARCH, 2023

One of my favorite subjects has always been statistics. I'm pretty sure it started with my early interest in sports which I've always attributed as my reason for studying and enjoying math all through school but maybe even more so over the many years since my "official" school ended.

Basic math has given way to analytics which very simply means finding an answer but then analyzing that answer from many different directions. The average tenure of current STI employees is 11.4 years. The median is a little over 9 years. I'm very proud of those numbers for a few reasons. One of my biggest reasons to be proud is I want STI to be a great place to work. We're small, so we can't offer some of the benefits the big guys can but also because we are small we can offer some benefits the big guys can't. I want people to want to stay here. That's very good for STI and it is very good for you, the customer. It means our people know and understand STI's way of doing things and you can expect consistency from us. An average tenure of 11.4 years is good.

Again, the average tenure of current STI employees is 11.4 years and the median is a little over 9 years. Does that mean we're getting old? Not individually, because the math on that only points in a direction we don't want to talk about. But are we getting old as a company where we are stuck in a rut on how we do things and rely too much on the "this is how we've always done it". We work hard to (hopefully) keep that from happening but it always will be an ongoing battle. Logic says the longer our average tenure, the harder this battle may be. In this case, 11.4 years may not be a good thing.

I believe 11.4 average employee tenure really is a good thing for STI and you but only if new hires are coming in to keep things fresh and new. I am thrilled that during the month of February we have been able to add 5 people to our team in a variety of positions. They bring experience and new blood, new ideas, new energy, and new sets of eyes to our team and I am confident that makes us a much better and stronger company. Please join



David Raby

President/CEO
draby@stiusa.com

me in welcoming Cesar, Brian, Jeff, Jon, and Gina to STI. Each one makes us better and our future stronger. They lower our 11.4 but it won't be long until we are back there again but it will be a better 11.4 in the future.

We'll be celebrating Randy Baumgarden's 35th Anniversary in March! He moved here from California with us and has done almost every job we have. He has been our Buyer for several years and has helped work several miracles over the past couple of years to make sure we have the components to keep running. As our Buyer, I am constantly joking with Randy that we'd have a lot more money if it wasn't for him spending it all the time. Of course, the reality is his purchasing is what keeps our whole operation in motion. We also celebrated AJ's 20th in January and will celebrate James' 25th in March. These guys inflate the 11.4 but they are key reasons we are here. I'm proud to work with them and the entire STI team.



President/CEO



UP CLOSE and PERSONAL

Interview with Jon Eaton

Meet Jon

Job Title: **Scheduler/Planner**

How long have you been part of STI Electronics?

Almost a whole month! haha

What do you do for STI? **I make sure schedule slippage does not exist!**

Just For Fun

Tell us about your family. **I have a total of (1) wife, (2) dogs named Rocket & Caboose, and (1) brand new baby boy named Ollie.**

Tell us about your pets. **Both of my dogs are very humble rescues. Caboose is the most loving animal. He loves to cuddle and is super playful! Rocket is very shy, but she has the softest fur of any animal I have ever touched!**

Do you have a favorite place to visit? **Stateside it would 100% be Austin, Texas. I used to live there and it was amazing. International I would say Norway or Scotland!**





What's your favorite type of music/song/artist? ? **I tend to love all types of music (classical all the way to electronic.) I really enjoy playing soundtracks to games/movies on the piano. My favorite composers are Marty O'Donnell & Hans Zimmer.**

What is your favorite movie or TV show? **This is tough. I have a long list of favorite movies. I would say three of my favorite movies would be Interstellar, The Last Samurai & The Secret Life of Walter Mitty.**

What's your favorite meal/food? **Steak cooked medium-rare**

Tell us about any hobbies that you enjoy. **I enjoy boxing, basketball, golf, and playing a little Destiny 2 here and there.**

What is your favorite motto or quote that summarizes your approach to life? **I have always loved the Dylan Thomas poem "Do Not Go Gentle into That Good Night." The poem itself is about death, but the spin on it symbolizes how I approach life, which is to never accept defeat passively. When life proves difficult, rage, rage against life's difficult moments.**

What's one fun thing to know about you? **I once played drums for Usher!**

What's your favorite thing about working at STI? **Definitely the people.**

What is your favorite non-profit to support and why? **St. Jude. Every year I help raise money for them. Such a great cause.**

Anything else you'd like to share with your team members? **Happy to be working here along side everyone! Don't be afraid to say hello!**



ANNIVERSARIES



David • 38 Years



Pat • 22 Years

Congratulations

During the first part of 2023 we have had several anniversaries to celebrate. We would like to congratulate each one on achieving this anniversary with us! They have all worked hard for this accomplishment and we truly appreciate their dedication.



Randy • 35 Years



James • 25 Years



Earlene • 3 Years



A.J. • 20 Years



Cornelia • 9 Years



Janie • 7 Years



Brittany • 6 Years



Martin • 5 Years



Melissa • 4 Years



Mark McMeen
VP Engineering Services/Manufacturing
mmcmeen@stiusa.com



Caroline Anthony, Ph.D.
Analytical Lab Manager
canthony@stiusa.com

We recently replaced our CamScan MV2300 with a Jeol JSM-IT510LV. This new system will allow for use in both low vacuum and high vacuum mode, giving us the capability to analyze more types of samples. The high vacuum mode of operation allows for resolution of 3.0nm at 30kV, 8nm at 3kV, and 15nm at 1kV. In low vacuum mode the resolution is 4.0nm at 30kV. The JSM-IT510LV will be equipped with both a backscattered electron detector and secondary electron detector that can be used in either high or low vacuum mode. The backscattered detector is a multi-segment solid state backscattered detector for composition, topographic and variable shadow (combination of composition and topographic)



Jeol JSM-IT510LV SEM – Nice and compact System with dual monitors

New Scanning Electron Microscope (SEM) added to STI's Analytical Lab

STI's Analytical Lab has an exciting new Scanning Electron Microscope (SEM) to add to its arsenal.

The secondary electron detector is an Everhart Thornley detector. Secondary electron detectors detect electrons that originate from the surface. The secondary electron detector will be useful for evaluating the topography of a samples surface. The magnification capability of the JSM-IT510LV can range from 5X to 300,000X and an accelerating voltage range of 300V to 30kV. The JSM-IT510LV has a high-resolution tungsten filament gun with unsurpassed low kV performance, as well as a large chamber that can observe samples as large as 7" in diameter and 3.5" tall, and a stage where the range of motion is:

- X= 4.92"
- Y= 3.93"
- Z= 0.2"-3.15" continuous
- R= 360° continuous
- T = -10° to +90°

Other exciting features of the new JSM-IT510LV include:

- Simple SEM for automated imaging
- Movie for video recording of analysis
- Montage for stitching large images
- ZeroMag for simplified navigation
- Live 3D surface reconstruction



Oversize chamber with optical imagery ports

The JSM-IT510LV will also be fitted with an Oxford Instruments Xplore 30 Silicon Drift Detector for energy dispersive x-ray spectrometer (EDS) analysis with AZtecLiveLite in the near future. The Xplore 30 will allow for rapid data collection using real-time chemical imaging with Live X-ray maps and Live Spectrum. It will also include guided navigation, image acquisition for secondary electron and backscattered electron images, X-ray Mapping and X-ray Linescanning.

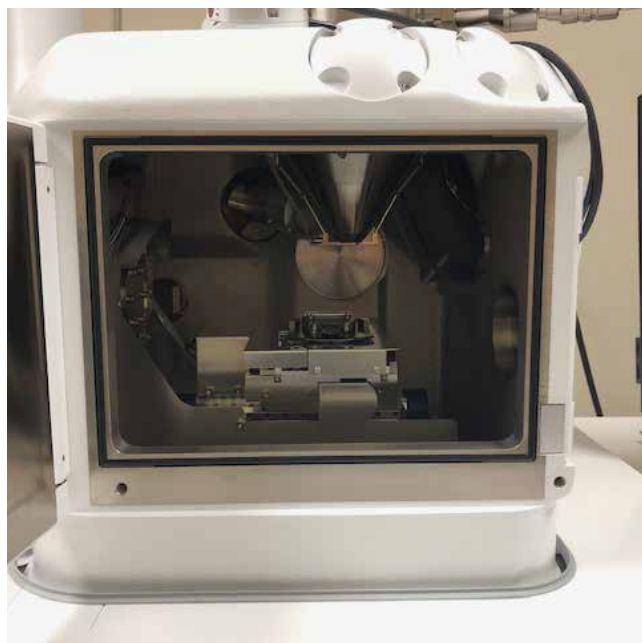
If you have any questions about the new addition to STI's Analytical Lab, or would like to request a quotation, please do not hesitate to contact:

Caroline Anthony, Ph.D.
canthony@stiusa.com
256-705-5531

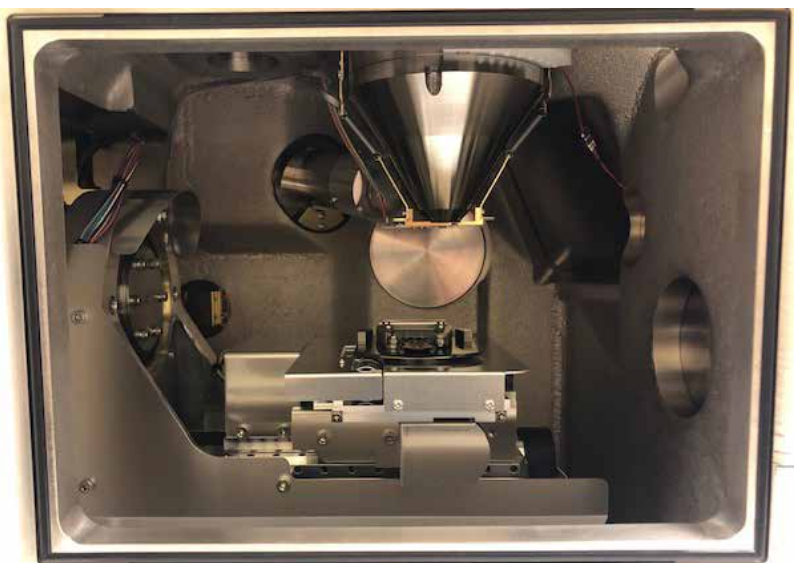
or

Mark McMeen V.P.
mmcmeen@stiusa.com
256-705-5515

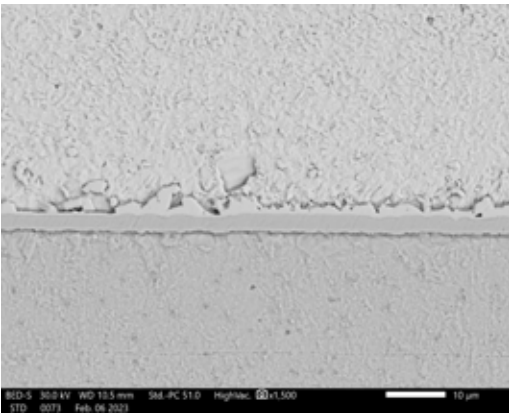
Come see the unseen and measure the unknown and test drive the latest in Scanning Electron Microscopy! And enjoy the images below to see the latest SEM imagery!



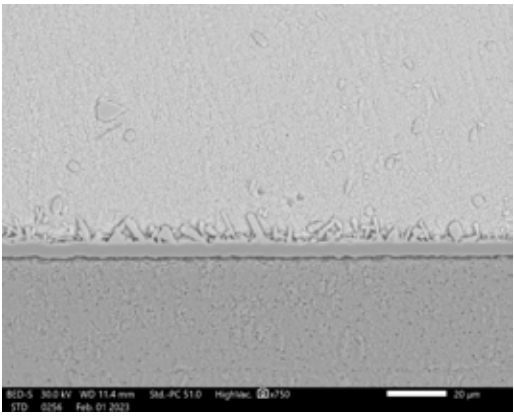
7 inch Diameter Specimen Size



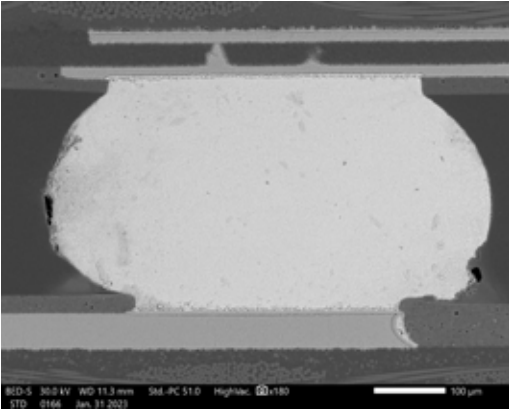
Close-up Inside The Chamber



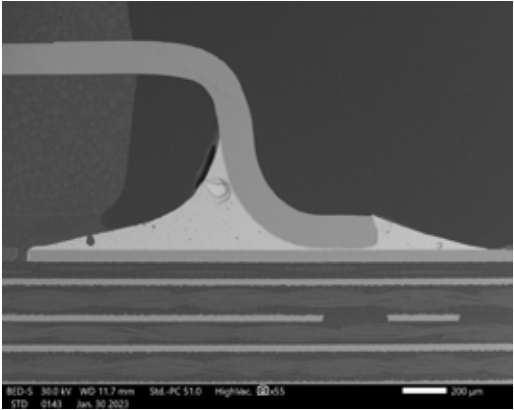
1500X magnification – Intermetallic formations: Nickel / Tin



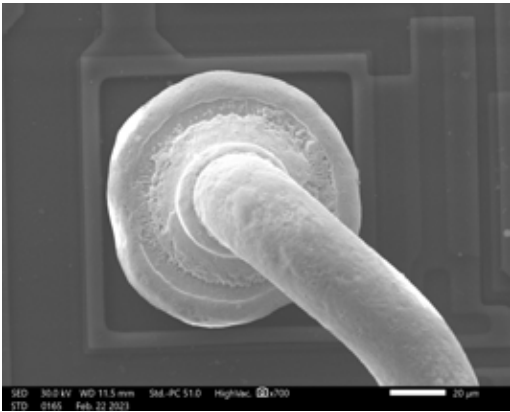
750X magnification – Intermetallic formations: Nickel / Tin



180X magnification



55X magnification



Secondary Electron Detector

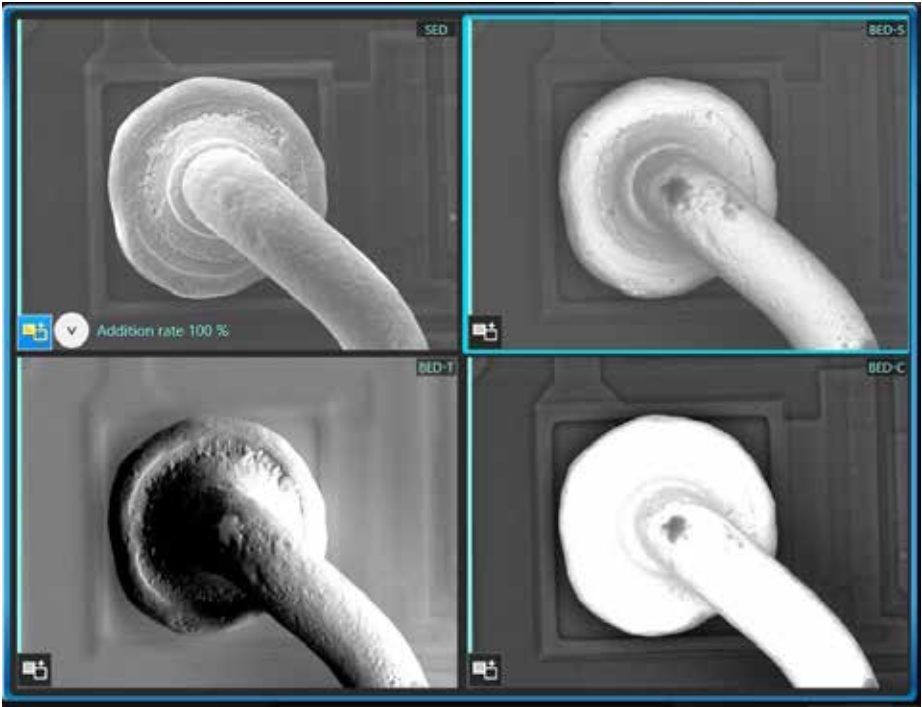
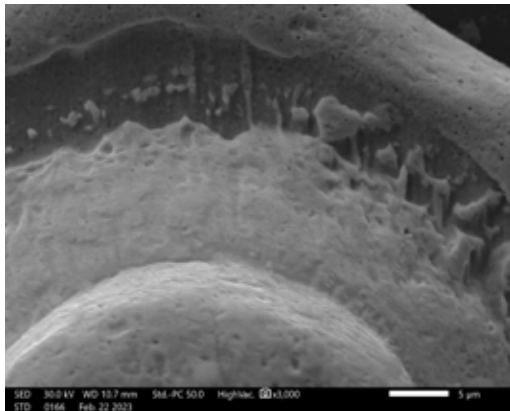


Image of Wirebond Comparing Detectors in High Vacuum



3000X Magnification



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On-line IPC Training & Certification



✓ Register Now

In addition to our classroom and on-site training courses, STI offers on-line training and remote testing for the following IPC lecture based Certification/Recertification courses:

- IPC-A-610 Certified IPC Trainer (CIT) and Certified IPC Specialist (CIS)
-Standard required for class
- IPC/WHMA-A-620 CIT and CIS
-Standard required for class
- IPC-A-600 CIT and CIS
-Standard required for class

Note: Currently hands-on courses are not available for on-line training or remote testing for CIT's or CIS's.

The Certified Subject Matter Expert (CSE) on-line courses are also available for

- IPC-A-610, IPC/WHMA-A-620, IPC-A-600, IPC-7711/7721 and J-STD-001
-Standard required for class

Exams that are required for these courses can now be proctored remotely using IPC EDGE.

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**Do you have a question?
Do you need information?
CHAT with us online!**



NEWS FROM IPC APEX 2023

By Frank Honyotski

Apex 2023 was held January 21 – 26, 2023. Here are some of the main topics that were addressed in the standards development/training committee meetings. Several documents dispositioned all of the outstanding comments which allows them to go to FDIR (Final Draft for Industry Review). These include the IPC-J-STD-001, IPC-A-610, and IPC-7711/21 which allows the entire industry to review them and make comments. Once the comment period is finished and all of the comments have been dispositioned the document then heads to Ballot where selected voters decide to approve or disapprove the draft. If approved it becomes a new revision of the document. Be on the lookout for IPC-J-STD-001J, IPC-A-610J, and IPC-7711/21D to publish before 2024. Once the document is released the training slides will start to be worked on. This process can take up to 6 months. The training materials cannot be released until the certification committee finishes the exams for the new revision.

The IPC-A-610 training committee has approved review questions which are available to all CIT's who are certified to the IPC-A-610. This can be found in the training resources section on the IPC Edge platform.

IPC is also working on a rubric for the workmanship portion of the J-STD-001, and eventually the IPC/WHMA-A-620 and IPC-7711/7721 courses. Each student attending these courses will get certified to the Standard similar to the 610, 600, 620. The hands-on training may be conducted during the course as well. This training will prepare the student for the IPC soldering proficiency exam. Each CIT or CIS will have to take a separate IPC Soldering

Proficiency Exam if needed which will measure skill level (Novice, Beginner, Intermediate, Advanced and Expert) and provide a level of proficiency which has not been completely developed yet.



Frank Honyotski
Lead Master Instructor
fhonyotski@stiusa.com

The hands-on evaluation does not require certification to the document but it will be more difficult to score high marks if the student is not familiar with the document that the workmanship is evaluated against. This new separate evaluation will run concurrently with the current courses for a period of time then it will replace the current offering that combines knowledge and skill.

New training courses are on the way for some recent releases of documents. IPC/WHMA-A-620E should release in the spring 2023, IPC-6012F is targeting a release in June 2023, and IPC-A-600M should release in September 2023. The Train the Trainer course that IPC was working on has been put on hold for the time being to devote resources to the workmanship evaluation testing.

Many other updates are discussed in class so if you are thinking of a challenge test then you might miss useful information that is discussed in the class and also problems and solutions that we and your peers deal with while conducting training.

We look forward to seeing you in the classroom soon!

Mixed Technology Training Kit

Available in both Lead Free and Tin Lead versions, the Mixed Technology Solder Training Kit offers a realistic mixture of Through-Hole and SMT. It contains many of the common components found in mature technology applications for both through-hole and surface mount production. It is our most popular training kit due to its tremendous flexibility for production training. The Solder Training Kits provide a cost effective and consistent approach to solder training. Instructors no longer have to spend their valuable time keeping track of inventory and sorting through production scrap. The parts are packaged in static shield bags to promote ESD practices. The kits are a reliable and economical way to ensure that each student and each class receive the same training materials. All parts and boards are guaranteed solderable. Custom boards, kits, and individual parts are also available. The Combination Kit has increased focus on SMT as reflected in additional component count.



SKU: 405-1075

Category: Training Kits &
Materials



[https://stiusa.com/product/
mixed-technology-training-kit/](https://stiusa.com/product/mixed-technology-training-kit/)

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