

NEWS

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Leading the way in **electronics**



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STI

DAVE'S WORLD

By: Dave Raby

October 2013

Welcome to our November issue of the STI Newsletter. Our plans are to go back to a monthly issue so we look forward to communicating with you more frequently. We're also changing the format to make the information more useful to you and easier to navigate through.

At STI, we like to celebrate. We celebrate holidays, birthdays, good months, and anything else that seems like a good reason to get together and eat. My favorite thing for us to celebrate (even more than a good month – or at least as much as a good month) is employment anniversaries. I used to be able to take everyone out to lunch for their anniversary but eventually we had too many people and I weighed too much to continue that tradition. Now we celebrate anniversaries that end in 0 or 5 starting with the 10th. We currently have 19 people who have been here at least 10 years including 8 with more than 15. These are my favorite because by the time you've been here 10 years, you've been through, as Jimmy Buffett would say, "good days and bad days and going half-mad days" and you've stuck with us through all of those and you've shown the character that we want representing STI.

Earlier this year, we reached a new milestone when we had the first (non-Raby) 25th Anniversary. As I mentioned previously, STI began a little over 30 years ago in California. I think the most employees we ever had in California was around 10. One of those employees, hired in 1988, was the son-in-law of the pastor of the church my parents attended. Randy Baumgarden didn't have any experience in our industry but was a nice guy from a good family and seemed like he'd be a hard worker. He worked in our kit room (we all did that at some point – packaging training kits), he answered phones (we all did that too), he made microsections (most of us did that), he bought parts and did whatever else he was asked or whatever he saw needed to be done. He also had a great mechanical talent where he could take almost anything apart (most of us could do that) and putting it back together where it worked better than before (not something most of us could do). We quickly saw Randy had a talent for jumping into a project and figuring out how to do

the job. When STI moved from California to Alabama in 1993, Randy, who had never lived outside of Los Angeles County other than when serving in the US Navy, was one of two non-Rabys who had the courage and the faith in STI to make the move along with his wife and two small children. I think they've all enjoyed Alabama and the kids have even grown up speaking Southern. Randy has continued to wear a variety of hats (and boots) and for the past couple of years has been the Buyer for our Engineering Department. We now have people to do a lot of the things Randy used to do but you can still find him stepping in whenever needed to make sure things get done.

I'm proud of Randy for the way he has grown up with STI over the past 25 years and the faith he has had in the Rabys. I appreciate the many things he has done and still does to help make STI successful and earn the reputation for doing things right and taking care of customers and I look forward to working with Randy for many years to come.

For many of the same reasons, I'm very appreciative of the other STI employees who have reached various anniversaries or will in the future. We have good smart



people who make STI a great place to come to work each day but they also make us a valuable asset to you by providing years of experience, a "can do" attitude, and a desire to help. They are also a great reason to get together and eat. October is the time for my favorite industry gathering, the SMTAI Conference & Expo, which was in Fort Worth this year. I love attending this event because while it is the industry's best technical conference, it is like a relaxed family reunion (without some of those really weird relatives which we all have – or at least my family says we do). This year was certainly no exception. Also this year, STI was honored to receive the SMTA Corporate Partnership award.



Contact Information:

Dave Raby

President/CEO

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It was very nice to be recognized for our time and efforts put into the organization locally, nationally, and internationally, but in reality we do it for selfish reasons. We get so much more from the educational programs and the people of the SMTA than we put in. We probably should be giving them the award. Either way, the award and the SMTA are very much appreciated by STI.



Please enjoy this newsletter and let us know how we can be of service to you.

Please follow us on twitter (@daveraby) or facebook (STI Electronics) for more up to date STI information.

HAPPY VETERANS DAY



**STI would like to thank all members of the
Armed Services for their commitment and sacrifice
on behalf of the United States of America.**

We Appreciate all that you do!



TRAINING SERVICES

Hands On Skills Development

Creative training for a strong work force.

STI Electronics, Inc. is a world renown, premier provider of training courses for the electronics assembly and related industries. STI has been an IPC Approved Training Center for over 16 years and currently offers Instructor and Operator level training for



NASA/MSFC Certification Courses

STI, as an Approved Training Site for Marshall Space Flight Center (MSFC), offers the following NASA courses including Staking/Conformal Coating and Cable & Harness Assembly.

Customized Training Courses

STI has the expertise to design and develop customized training courses to meet your company's needs. Topics include Basic Soldering, Wave Soldering, Lead Free Soldering, Flex & Rigid Flex Soldering/ Rework, and BGA Rework to name a few.

Highly Skilled Staff

The staff of STI's Training Services Department is unsurpassed in knowledge, experience and commitment to the students that pass through our classes. STI has 6 full time Master Instructors that collectively have over 120 years of experience in industry and military applications.



Contact Information:

Pat Scott

Director of Training Services

pscott@stielectronicsinc.com



TRAINING SCHEDULE



To register for a course or for additional information go to www.stielectronicsinc.com or email us at training@stielectronicsinc.com



MADISON, AL

| MONTH | DATE | CLASS |
|----------|------|--|
| December | 02 | IPC-A-610 Certified IPC Trainer (CIT) Recertification Program |
| | 04 | IPC J-STD-001 Certified IPC Trainer (CIT) Recertification Program |
| | 06 | J-STD-001ES Update, Space Application Addendum to J-STD-001E |
| | 09 | IPC J-STD-001 Certified IPC Trainer (CIT) Certification Program |
| | | IPC Rework/Repair and Modification Certified IPC Trainer (CIT) Recertification Program |
| | 11 | IPC/WHMA-A-620B Certified IPC Trainer (CIT) Recertification Program |
| | 16 | J-STD-001 Certified IPC Specialist (CIS) Certification Modules 1-6 (Space Addendum Included) |

TEXAS & OKLAHOMA

| MONTH | DATE | CLASS | WHERE |
|----------|------|---|------------------|
| December | 02 | IPC-A-610 Certified IPC Trainer (CIT) Certification Program | Broken Arrow, OK |
| | 09 | IPC J-STD-001 Certified IPC Trainer (CIT) Certification Program | Houston, TX |



STI's Training Services

2014 Schedule



J-STD-001 "Requirements for Soldered Electrical and Electronic Assemblies"

J-STD-001 Certified IPC Trainer (CIT) Certification Course - Madison, AL

February 3-7 April 21-25
June 2-6 August 11-15
December 1-5

J-STD-001 Certified IPC Trainer (CIT) Recertification Course - Madison, AL

January 29-30 February 26-27
March 26-27 April 30-May 1
May 29-30 June 25-26
July 30-31 August 27-28
September 24-25 October 29-30
November 19-20

J-STD-001 Certified IPC Trainer (CIT) Space Addendum Course - Madison, AL

January 31 February 28
March 28 April 25
May 2 June 27
July 2 August 1 & 29
September 26 October 31
November 21

J-STD-001 Certified IPC Application Specialist (CIS) Certification Course (Modules 1-6) - Madison, AL

February 3-7 June 23-27
Sept. 29-Oct 3



IPC-A-610E "Acceptability of Electronic Assemblies"

IPC-A-610 Certified IPC Trainer (CIT) Certification Course - Madison, AL

February 18-21 April 15-18
June 9-12 August 18-21
December 8-11

IPC-A-610 Certified IPC Trainer (CIT) Recertification Course - Madison, AL

January 27-28 February 24-25
March 24-25 April 28-29
May 27-28 June 23-24
July 28-29 August 25-26
September 22-23 October 27-28
November 17-18

IPC-A-610 Certified IPC Application Specialist (CIS) Certification Course - Madison, AL

November 12-14



IPC-A-600E "Acceptability of Printed Boards"

IPC-A-600 Certified IPC Trainer (CIT) Certification/Recertification Course - Madison, AL

January 21-23 March 25-27 October 15-17

STI's Training Services

2014 Schedule



IPC/WHMA-A-620
Training Center

IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies"

**IPC/WHMA-A-620 Certified IPC Trainer (CIT)
Certification Course - Madison, AL**

March 11-14
July 8-11

May 19-22
October 20-23

**IPC/WHMA-A-620 Certified IPC Trainer (CIT)
Recertification Course - Madison, AL**

January 23-24
May 8-9
September 11-12

April 21-22
June 30-July 1
October 15-16

**IPC/WHMA-A-620 B Certified IPC Trainer (CIT)
Space Addendum Course - Madison, AL**

*Prerequisite: IPC/WHMA-A-620B CIT Certification or
Recertification Course.*

March 24-28
July 14-18

May 12-16
September 15-19



IPC-7711/7721
Training Center

**IPC-7711/7721 "7721B Rework,
"Modification and Repair of
Electronic Assemblies"**

**IPC-7711/7721 Certified IPC Trainer (CIT)
Certification Course - Madison, AL**

March 3-7
October 6-10

July 21-25



IPC-7711/7721
Training Center

**IPC-7711/7721 "7721B Rework,
"Modification and Repair of
Electronic Assemblies"**

**IPC-7711/7721 Certified IPC Trainer (CIT)
Recertification Course - Madison, AL**

January 22-23
July 28-29
November 13-14

April 23-24
September 4-5

**IPC-7711/7721 Certified IPC Application Specialist
(CIS) Certification Course - Madison, AL**

August 11-19

December 8-16

**IPC-7711/7721 Certified IPC Application Specialist
(CIS) Recertification Course - Madison, AL**

December 17-18

Basic Soldering - Madison, AL
Available upon request.

January 6-10

**MSFC/NASA-STD-8739.4 Cable Harness
Certification Operator/Inspector**

January 13-17

April 14-18

**MSFC/NASA-STD-8739.1 Staking and Conformal
Coating Operator/Inspector**

February 18-21

November 3-6

**To register for a class visit our website at
www.stielectronicsinc.com.**

ELECTRONIC ASSEMBLY

VALUE ADDED SERVICES

In addition to a complete line of electronic assembly and solder supplies, STI offers a complete array of inventory management tools. Vendor managed systems help reduce overall purchasing costs as well as insure product availability at the point of use. Inventory Management Systems can be as elaborate as vending type machines configured specifically for the customer's needs and product mix to a simple scanner system.

- Consumption Reduction (Typically 20-40%)
- Productivity Savings
- Visibility to Consumption Allocation at the Point of Use
 - Distribute inventory based on actual demand rather than pushing based on outdated and selective user input
 - Monitor consumption by user, machine, job number & work order
- Optimize inventory
 - Eliminate obsolescence based on hard data
 - Standardize on parts & SKU's
 - Define minimum and maximum levels on actual demand
- Automate the Restock Notification, Ordering & Reporting Functions
 - Alerts can be sent based on various criteria - I.e. minimum level reached

E-STORE

For the convenience of our customers, all products available at STI can be purchased from our E-Store accessible at www.stielectronicsinc.com



PRODUCTS

| | | |
|---------------|------------|------------|
| 3M | EXCELTA | PANAVISE |
| 3M ESD | EXTECH | PURITAN |
| ACL STATICIDE | FANCORT | QRP |
| AIM | HAKKO | R&R LOTION |
| AKRO-MILS | IDEAL | SIMCO |
| APEX | IDENTCO | STEINEL |
| ARLINK/LISTA | JANPAK | UTICA |
| ASG-DIVISION | JBC | WELLER |
| AVEN | KAHNETICS | WIHA |
| BEAUTECH | KESTER | WISS |
| BIO-FIT | KOLVER | XCELITE |
| BONKOTE | LEWIS BINS | |
| BOTRON | LINDSTROM | |
| BRADY | LUFKIN | |
| CHEMTRONICS | METCAL | |
| DANTONA | MICRO-CARE | |
| DEK | NICHOLSON | |
| EASY BRAID | O.C. WHITE | |
| EDSYN | PACE | |
| EREM | | |



Hakko Bundle Deals

Expires Nov. 29, 2013

BUY

&

GET ONE FREE

Select One Item for every purchase — while supplies last!

Note: one (1) FREE CHP-170 cutter is shipped with every order.



FM203-01
Dual Port
Soldering Station
\$549.97

+



FT700-05
Tip Polisher
\$156 VALUE!

OR



FM2030-02
Heavy Duty Iron
\$173 VALUE!

OR



(30) CHP-170
Medium Cutters
\$131 VALUE!



FR801-11
Hot Air Rework Station
\$625.07

+



FX888D-23BY
Soldering Station
\$107 VALUE!

OR



FR830-02
Preheater
\$343 VALUE!

OR



394-01
Vacuum Pickup Tool
\$110 VALUE!

OR



(2) C1390C
Board Holders
\$119 VALUE!



FR802-11
Hot Air Rework Station
\$885.47

+



FX888D-23BY
Soldering Station
\$107 VALUE!

OR



FR830-02
Preheater
\$343 VALUE!

OR



394-01
Vacuum Pickup Tool
\$110 VALUE!

OR



(2) C1390C
Board Holders
\$119 VALUE!



TWO (2) FX951-66
Soldering Station
\$262.77 each = \$525.54

+



FT700-05
Tip Polisher
\$156 VALUE!

OR



(30) CHP-170
Medium Cutters
\$131 VALUE!



FA430-16
Fume Extraction System
\$625.07

+



C1571
Arm Duct Kit
\$145 VALUE!

OR



C1572
Arm Duct Kit
\$145 VALUE!

OR



999-205-01B
Loc-Line Kit
\$156 VALUE!

OR



999-205-02B
Loc-Line Kit
\$156 VALUE!

Contact STI Electronics, Inc. at 1-800-858-0604 or email sales@stielectronics.com

261 Palmer Road, Madison, AL 35758 FAX 1-888-650-3006

sales@stielectronicsinc.com • www.stielectronicsinc.com



Hakko Customer Upgrade Promotion

American Hakko Products is offering a special upgrade opportunity for loyal Hakko customers. If you have any of the following Hakko products listed in the Hakko Discontinued Product table below, you can now upgrade to your choice of the Hakko products listed in the Hakko Upgrade Product table at the advertised discounted price. **Limited Time Offer. Expires Nov. 29, 2013. While Supplies last.**

Hakko Discontinued Product



FM-202 Soldering Station (PN: FM202-01)

936 Soldering Station (PN: any 936)

939 Soldering Station (PN: 939-1)

FP-101 Soldering Station (PN: FP101-01)

FP-102 Soldering Station (PN: FP102-01)

HJ3100 Fume Extraction System (PN: any HJ3100)

470 Desoldering Series: 470, 470B, 471, 472, 472B, 473

Hakko Upgrade Products

| | | |
|--|---|--|
| FM-203 Dual Port Soldering Station PN: FM203-01 | \$399.00 \$549.97 MSLP \$150 VALUE! | |
| FX-951 Soldering Station PN: FX951-66 | \$199.00 \$262.77 MSLP \$63 VALUE! | |
| FA-430 Fume Extraction System PN: FA430-16 | \$475.00 \$625.07 MSLP \$190 VALUE! | |
| FM-204 Desoldering Station PN: FM204-01 | \$525.00 \$690.97 MSLP \$165 VALUE! | |
| FM203-HD Heavy Duty Soldering Station PN: FM203-HD | \$449.00 \$596.27 MSLP \$147 VALUE! | |

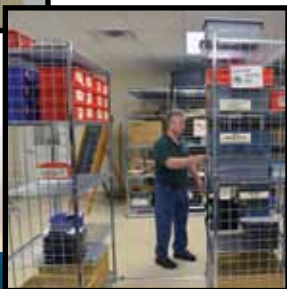
Contact STI Electronics, Inc. at 1-800-858-0604 or email sales@stielectronics.com

261 Palmer Road, Madison, AL 35758 FAX 1-888-650-3006

sales@stielectronicsinc.com • www.stielectronicsinc.com



ASSEMBLY & SOLDER KITS



STI's goal is to offer solutions to the challenges our customers face on a daily basis. As a result, STI offers a full line of assembly and solder aids that can be used for manufacturing or training purposes.

[illegible]

STI is an approved Distributor for IPC which includes Video, Standards, Desk Reference Manuals and a variety of other products that can be used for training as well as manufacturing aids.



MANUFACTURING ANALYSIS

STI's involvement in research and development programs, both in component packaging technologies and electronics assembly manufacturing, has brought about the installation of the latest and most advanced equipment and the acquisition of the top people in this field. STI is staffed to design, develop, assemble, and test a ruggedized electronics assembly in an advanced cleanroom laboratory (Class 1000/ISO Class 6 certified) to meet our customer's specifications.



MANUFACTURING

STI Electronics' manufacturing lab encompasses 26,000 sq ft of floor space containing two surface mount lines, automated through-hole processing, and multiple flexible work cells for final assembly, 7711/7721 certified rework and repair, box build, and test. The facility and equipment is complimented by a highly skilled and trained work force of electronic technicians and associates, all of whom are certified to the highest standard of IPC J-STD-001 ES (Space Addendum).



MICROELECTRONICS PACKAGING

The Microelectronics Lab was established to meet the rising need for advanced systems development and packaging to address the emerging challenges and issues facing today's electronics assemblies. Advanced design and modeling software enables STI to design and develop highly integrated hardware to meet shrinking form and fit factor requirements as well as increasing thermal loads. Emerging packaging materials are continuously evaluated



to optimize electrical and thermal performance. The microelectronics lab specializes in state-of-the-art packaging design and assembly including current technologies such as Chip-On-Board (COB) and Multichip Module (MCM) as well as emerging technologies such as STI's patented packaging technology termed Imbedded Component/Die



CIRCUIT DESIGN

STI's involvement in research and development programs, both in component packaging technologies and electronics assembly manufacturing, has brought about the acquisition of the top people in this field and the installation of the latest and most advanced equipment and design tools. STI is US-based, ITAR registered, and staffed with engineers to design, develop, and assemble a ruggedized electronics assembly in compliance with our customer's specifications. With experience in Defense, Aerospace, Space, and commercial applications, STI is adept to designing and assembling a product to satisfy our customer's requirements.



TESTING

STI Electronics Inc.'s Engineering Department serves the aerospace, military, and commercial sectors of the electronics industry offering test and evaluation services for component-level and system-level electronics hardware. STI offers customized test protocols as well as performs testing in compliance with various EIA/JEDEC, IEC, AEC, ASTM, IPC, and MIL standards.



ELECTRICAL TEST SERVICES

STI offers a variety of electrical test services from component-level testing/characterization to system-level testing. Electrical testing is offered to validate values in accordance with component manufacturer's performance specifications, a customer's test specification, as well as standard test methods.



Analog and Digital Designs

- High Frequency RF Layouts
- Controlled Impedance Designs
 - Design Attributes
 - Rules Management
- Design Library Generation
 - Part, Package, and Electrical Symbols
 - Full Forward/Back Annotation

ENVIRONMENTAL TEST SERVICES

All electronic hardware is susceptible to the damaging effects of moisture, temperature, and contaminants. STI understands the criticality of reliability testing and test-to-failure. Improper selection of assembly materials and manufacturing processes can result in field failure returns which can lead to high warranty reserves thus affecting long-term profitability. STI's environmental testing capabilities include replicating environments such as Humidity/Moisture Resistance, Thermal Shock/Thermal Cycle, Steam Aging and Vibration/Shock testing. Coupled with the ability to perform in-situ electrical testing as well as a full range of post-test analysis of samples, these tools allow for rapid "aging" of components and prediction of operational life of hardware.

- Thermal Shock
- Temperature Cycling
- Moisture Resistance
- Humidity Cycling
- Shelf Life
- Accelerated Aging
- Vibration Testing





Happy Thanksgiving
from

