



TRACE LABORATORIES, INC.

## UPDATE ON MILITARY QUALIFICATION AND CONFORMANCE OF PRINTED CIRCUIT BOARDS

Rev. January 2009

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### 2008 SPECIFICATION RELEASES

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- **MIL-PRF-55110G** with **Amendment 3** is complete and officially dated February 29, 2008. To obtain a copy please visit DSCC's website at: <http://www.dscc.dla.mil/Downloads/MilSpec/Docs/MIL-PRF-55110/prf55110.pdf>
- **MIL-P-50884E** is complete and dated November 24, 2008. At this time DSCC is not requiring manufacturers to qualify to Revision E. To obtain a copy of the new revision, please visit: <http://www.dscc.dla.mil/Programs/MilSpec/lis/docs.asp?BasicDoc=MIL-P-50884>
- A new **19W Form** was issued in July 2008. To be sure you are following the current qualification requirements, please visit: <http://www.dscc.dla.mil/downloads/VQGeneral/FE19Wcurrent.pdf>
- Amendment 3 is available for the following **MIL-PRF-31032** specifications:
  - MIL-PRF-31032/1B
  - MIL-PRF-31032/2A
  - MIL-PRF-31032/3A
  - MIL-PRF-31032/4A
- The initial draft of **MIL-PRF-31032/5, Amendment 1** now available on DSCC's website.

Download each MIL-PRF-31032 specification at:

<http://www.dscc.dla.mil/Programs/MilSpec/listdocs.asp?BasicDoc=MIL-PRF-31032>

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### TRACE NEWS

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Trace is proud to announce the addition of a new testing facility in Shanghai, China. This lab will primarily support product verification and materials testing for our current and future customer base with sister divisions and/or suppliers in the Far East. We will also provide complete testing solutions for OEMs and their suppliers. The newest Trace lab will support Material Analysis, Dimensional Measurements, Functionality, Design Validation and Process Validation Testing (DV/PV.) For more information, please visit:

[http://www.tracelabs.com/article.aspx?article\\_id=73](http://www.tracelabs.com/article.aspx?article_id=73)

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### CONTACT INFORMATION

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**For more information regarding topics covered in this Spotlight or any other testing needs, please contact:**

**Renee Michalkiewicz at (410) 229-4360  
or [rmichalkiewicz@tracelabs.com](mailto:rmichalkiewicz@tracelabs.com)**

**Visit us on the web at:  
[www.tracelabs.com](http://www.tracelabs.com)**



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## GROUP B SUBMISSION GUIDE

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- All Group B submissions are required by DSCC to be submitted within **30 days** after the production month of the samples. When late submissions are received, we **must** notify your DSCC point of contact for permission to proceed with testing.
- The master drawings or design information are **required** when submitting Group Bs to Trace. Testing **cannot** be completed without this information. A laboratory notice will be issued this month regarding this to all labs from DSCC.
- A minimum of 2 coupons from the most complex design for the particular calendar month are to be submitted for the following tests:
  - Rework Simulation
  - MIR and DWV
  - Peel Strength (if foil lamination is used)
  - Resistance To Solvents (if procedure not performed during Group A inspection and marking ink is present)
- To ensure your Group B samples will not be returned please be sure coupons are marked with:
  - Manufacturer's CAGE code
  - Lot date
  - Part Number
  - Serial Numbers

## MILITARY SPOTLIGHT

- If Peel Strength coupons are submitted, please remove all coatings and finishes prior to submitting samples for Group B testing. The removal of coatings and finishes **cannot be performed by Trace.**

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### MIL-PRF-55110 QUALIFICATIONS

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#### What to submit:

- Approved Page 4 of 19W form
- Group A test results
- Traveler used for production
- As Received, Thermal Stress, and Solderability samples
- Two (2) boards for Qualification testing
- Copies of material conformance certifications used for production

#### Helpful tips:

- If foil lamination was used during the production of the qualification boards, P coupons shall be added to the D location of the qualification boards
- Marking of serial numbers and date code is to be near the **center of the H-2 coupon on layer 1**
- Review the requirements of the appropriate Attachment to the 19W Form, Master Drawing Replacement Requirements



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## MILITARY SPOTLIGHT

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### MEET YOUR MILITARY TEAM

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**Renee Michalkiewicz**  
**Laboratory Director**

Renee has been with Trace for thirteen years. Renee oversees printed circuit board and printed circuit board material (paste, flux, solder mask, conformal coating) qualification and testing, environmental testing, process validation (Cleanliness, SIR, MIR, ECM and CAF), and training and consultation. She chairs the IPC J-STD-004 Flux committee and the Test Method Committee, is the Vice-Chair of the Assembly and Joining Committee, and is a contributing member to many others. Renee is an IPC-A-600 Master Instructor Trainer.



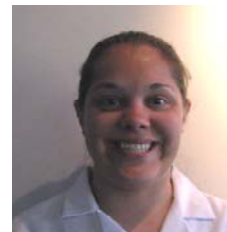
**Michael Allison**  
**Engineer**

Michael has been with Trace for three years. His expertise includes Conformal Coating Testing per MIL-I-46058 and IPC-CC-830, Surface Insulation Resistance (SIR), Electrochemical Migration (ECM) and Conductive Anodic Filament (CAF) Testing. Michael is IPC-A-600 certified.



**Yolanda Russell**  
**Engineer**

Yolanda has been with Trace for nearly two years. Her technical responsibilities include Military qualification and retention testing. Her military expertise includes the MIL-PRF-55110, MIL-P-50884 and MIL-PRF-31032 documents. She is IPC-A-600 certified.



**Sonja Ehrhardt**  
**Engineer**

Sonja is new to the Military team and is currently being trained on all rigid and flex military qualifications and Group B testing.