

Fall

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DLS News & Views

To help keep you better informed

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ACCLASS Accreditation

D.L.S. Product Safety and Environmental Testing Achieves ACCLASS 17025 Accreditation

D.L.S. Conformity Assessment announces that their product safety and environmental testing services are now under the ACCLASS 17025 accreditation program overseen by ANSI. This globally accepted program covers the following product safety standards: EN/UL/IEC 60950, EN/UL/IEC 60065, EN/UL/IEC 60601, EN/UL/IEC 61010, EN/UL/IEC 60730 as well as environmental



Product Safety Testing

testing under MIL-STD 810, MIL-STD 202, RTCA DO-160, ANSI, ASTM, IEC, ISTA, NEMA, and SAE standards and includes but is not limited to vibration, temperature extremes, humidity, shock, salt spray, acceleration, altitude, sand and dust, rain, chemical exposure, waterproofness, flammability, decompression, and icing. Testing services are offered at their centrally located facilities in Wheeling, IL, and are complementary to the existing EMC testing services offered by D.L.S. More information can be found at www.dlsemc.com/environmental.

New Acceleration Equipment at D.L.S. CA

D.L.S. Conformity Assessment announces the acquisition of a new centrifuge for high level acceleration testing, which simulates loads on components and systems caused by jet aircraft acceleration. Engineers at D.L.S. CA perform functional and structural testing using the centrifuge by subjecting items to inertial forces as high as 200 g's. D.L.S. offers a full range of acceleration testing capabilities for items up to 70 lbs, with multiple electrical slip rings that provide many EUT powering and signal monitoring options.



Acceleration Testing at D.L.S. CA

IEC 62368-1 Safety and EN 55032 EMC Update

The next few years will be important for the manufacturers of Audio/Video (IEC 60065:2001) and High-Tech (IEC 60950-1:2005) equipment, as new standards covering both of these categories have been developed. Standard IEC 62368-1 is a hazard-based standard and it emphasizes safety design in the early product development phase, but without the need for Risk Assessment. The First Edition of this standard has already been released, but has not found widespread acceptance. The Second Edition, however, is expected to be widely accepted throughout the world. Products currently covered by IEC 60950-1 and IEC 60065 are still acceptable, but starting in 2019 all High-Tech and Audio Video products must be tested to the new IEC 62368-1 Standard. Please contact D.L.S. CA at 847-537-6400 for more details.

As an update to the EN 55032 information in our last newsletter, we can now confirm that EN 55013 and EN 55022 have a Date of Withdrawal of March 5, 2017. EN 55032 is included on both of the current R&TTE & EMC Directive Official Journal Harmonized Standards listings. EN 55022 and EN 55013 can be used to show compliance until March 5, 2017, after which the use of EN 55032 will be mandatory.

D.L.S. provides a comprehensive testing program for EMC and Safety compliance for both ITE High-Tech and Audio/Video equipment and is currently offering a 10% discount for any new program for clients requiring compliance in these categories when booking both their Safety and EMC. This program ends at the end of August, and requires a quote request with the following reference: ITE/AV 2014.

Navy Programs focus of DLS visit by Congressman



Congressman Brad Schneider, representing the 10th Congressional District, visited the D.L.S. Electronic Systems Wheeling, IL main campus on July 1st. D.L.S. is one of the largest military service providers in the 10th District. Congressman Schneider met with the D.L.S. leadership team, and reviewed the D.L.S. 31 year history of supporting Navy programs such as the USS America, USS Zumwalt, and the USS Gerald R Ford.

D.L.S. founder Don Sweeney provided Congressman Schneider a firsthand look at the numerous testing chambers, test and support equipment that is utilized to perform this important testing, and to meet the technical and support staff.

A town hall meeting was also held, where Congressman Schneider openly discussed the new opportunities for small business and took questions on the competitive challenges to be faced in the future.

Congressman Schneider was quoted: "I was pleased to have the opportunity to be able to meet the hardworking employees at D.L.S. Electronic Systems and to develop a greater understanding of the significant contributions they make to our local economy and our national defense. As a member of the Committee on Small Businesses, I understand the importance of facilities like this one to a prosperous local economy and a healthy industrial base to guarantee that our soldiers deployed have the equipment they need to fully accomplish their mission."

D.L.S. Electronic Systems is proud to support the men and women that serve in the armed services, and looks forward to continuing their testing efforts.

regulatory requirements **UPDATE**

MIL-STD-461G

MIL-STD-461G is soon to be released for public comments and will include CS117 lightning induced conducted transient susceptibility on cable and power leads. The requirement is similar to DO-160G Section 22 but will not include pin injection testing.

This requirement will be applicable to all aircraft safety-critical equipment, interconnecting cables including complete power cables, and individual high side power leads. It is also applicable to non-safety critical equipment with interconnecting cables/electrical interfaces that are part of or connected to equipment performing safety critical functions. It may be applicable to aircraft equipment performing non-safety critical functions when specified by procuring activity.

D.L.S. continues to stay involved in the SAE AE2 Lightning Committee. As part of the DoD Tri-Service Working Group drafting MIL-STD-461G, one of the areas D.L.S. is contributing to is CS117, working with Air Force representative/contributor Joseph M. DeBoy Sr., EMI/EMC Technical Expert, U.S. Air Force Civ AFLCMC/EZAC.

New Radio Equip Directive RED

The R&TTE Directive will be repealed effective June 13, 2017, after which the manufacturer/ marketer will not have the option to use it. A device that is compliant with R&TTE prior to June 12, 2016 may be placed on the market up to June 12, 2017. Placing a product on the market between June 13, 2016 and June 13, 2017 with an R&TTE-D DoC would be possible following the transitional period of the RED (Art. 48). Equipment placed on the market before June 13, 2017 in accordance with the R&TTE Directive can be further made available on the market (e.g. by distributors) even after 2017. This will be discussed in the next R&TTE CA meeting in the hope of providing some guidance.

EU Updates List of Standards for Medical Device Directive

The European Union recently updated and published in the Official Journal the list of standards that can be used to show compliance to the Medical Device Directive. This updated list of standards can be found at www.dlsemc.com/EUmedicalstandards on the D.L.S. web site. Use of harmonized standards is considered the best way to show compliance because they offer presumption of conformity for the products that comply with them.

IEEE/ANSI C63.4 - 2014

Publication of "ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" was announced on June 20, 2014. This version of the standard offers noteworthy revisions to the currently accepted C63.4-2003 and C63.4-2009. Changes introduced include those for tablet and display setup and operation, rack-mounted equipment testing, measurement antennas, test table construction, measurement uncertainty and test site requirements. Also, the standard applies to unintentional radiators only, as the complete section regarding testing of intentional radiators has been removed since testing of these devices is detailed in ANSI C63.10.

The ANSI C63.4-2014 standard still needs to be adopted by the FCC, Industry Canada and other authorities globally before it can be used. Once adopted, there will likely be a transition period allowed since many of the changes in the standard are significant and could affect test labs and manufacturers alike.

D.L.S.'s Dedicated Automotive EMC Testing Lab



Automotive Testing at D.L.S.

D.L.S. Electronic Systems announces the establishment of a dedicated automotive testing lab in the Wheeling, IL campus. This lab supports automotive and related automotive components and accessories with a primary focus on developmental and pre-compliance testing, using state-of-the-art equipment, combined with the experience of D.L.S.'s technical staff. The new lab team will provide detailed analysis and mitigation services, complete with senior level consulting available. A similar program is expected to start shortly for automotive environmental testing. For more information regarding this new lab, please contact Jack Black at jblack@dlsemc.com.

latest EMC book for **SEMINAR**

The Writing of *Controlling Radiated Emissions by Design, 3rd Edition*

Michel and I have been working on the 3rd edition of *Controlling Radiated Emissions by Design* for more than 18 months and are pleased to now see it in print. What does it feel like to see your name on the cover of a technical book after so many years of teaching? To be honest, I felt rather awed to share the cover with Michel Mardiguian after having met him back in the late 80's and having used his first and second edition since the early 1990's.



Some of the D.L.S. staff who contributed to the book

Back in 2000 I had worked with Michel on the second edition. I edited it for technical material readability and my assistant Maxine edited the English wording. Those were the days when we received a printed galley proof, 300 plus pages, which we marked up in color. I remember making color copies of the mark-up so the publisher in New York and Michel outside of Paris could each have a copy.

When Michel chose to write the 3rd edition, he invited me to join him on the cover as a contributor and that invitation also included my staff of experts on worldwide standards for FCC, EU, Automotive, Radio, Military and RTCA, etc. I wrote or updated much of Chapter 1 and 12, along with contributing to the rest of the book. My staff contributed to many parts of the book and helped with the graphics and editing.

Over the years, I have learned a lot of techniques working with graphics and was able to pull a lot of these together for the book. As I edited the technical parts, I had long discussions both with D.L.S. staff and with Michel to make the explanations as easy to follow as possible.

One thing unique to this book is a web page <http://dlsemc.com/crebd> where standards will always be up-to-date. As you know, it is hard

to keep a book up to date when it comes to standards!

This book has been part of my seminars since the early 1990's. I started teaching classes back in 1983, giving several in-house presentations and developing material as requested. The formal classes started in the late 80's when I taught at the University of Wisconsin. For 30 plus years, we have been adding material to keep pace with technology. Much of my class material was placed into Michel's book and during the writing we updated our class slides to reflect the new book.

One part we could not include in the book was the computer programs we developed based on the formulas in the book. These require a hands-on demonstration to understand how to use them. In the class we first do the calculations manually to understand them, then we automate the process during the workshop where we apply the concepts we just learned to a product.

I am very proud to be associated with Michel and to have a staff that helped this book become a reality. I truly believe we have developed a book which will help you control your radiated emissions by your design. The book is available from D.L.S. for \$119 plus sales tax, with free shipping in the U.S., by calling 847-537-6400.

Amenities in D.L.S.'s New Customer Lounge

D.L.S. is happy to provide a new lounge for clients at our Wheeling headquarters. It features a large table for meetings or conference calls, a flat-screen TV with web connection for video conferencing or presentations, a desktop computer with webcam for video calls, Wi-Fi access, comfortable couches, and an extensive industry magazine selection. Whether you need to check in on a conference call or take a break from witnessing testing, our lounge is here for you!



New Customer Lounge at D.L.S.

D.L.S. New Sales & Development Team



Jack Black, D.L.S. Business Development Manager, announces the new realigned sales and development team, providing customer service for all compliance needs including EMC, Radio/Wireless, Safety, and Environmental Testing services, as well as consulting and education programs.

Darrin Bliss is transitioning from the technical staff into a Field Sales Engineer. He will be covering the Midwest areas of WI, MN, MI, IA and other key accounts. Darrin can be reached at [dbliss@dlsemc.com](mailto:d bliss@dlsemc.com) or 1-847-537-6400, ext 104.

Jim Lahey, the newest member of the team, will be the inside sales and applications engineer for the Eastern half of North America, covering all states east of the Mississippi River, except for Michigan and Wisconsin. Jim can be reached at [jlahey@dlsemc.com](mailto:j lahey@dlsemc.com) or 1-847-537-6400 ext 250.

Jim Burgard is the inside sales and applications engineer for the Western part of North America, with all states west of the Mississippi River, plus Michigan and Wisconsin. Jim can be reached at [jburgard@dlsemc.com](mailto:j burgard@dlsemc.com) or 1-847-537-6400 ext 130.

Barbara Inguagiato continues her role as Project Coordinator for key accounts. She can be reached at barbi@dlsemc.com or 1-847-537-6400 ext 101.

Jessica Stephens also continues her role as Sales Support Specialist on projects related to Shielding Effectiveness, under IEEE 299 and MIL-DTL 83528. Jessica can be reached at jstephens@dlsemc.com or 1-847-537-6400 ext 106.

Any additional information for global compliance needs can be forwarded to Jack Black, at jblack@dlsemc.com, or 1-847-537-6400 ext 126.

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Latest EMC Book

*Controlling Radiated Emissions by Design, 3rd Edition
contributed to and edited by Donald L. Sweeney,
including the latest digital technology, published 2014*



EMC By Your Design

An EMC Practical Applications Seminar and Workshop

using the most recent EMC Design Book
plus take home proprietary computer program,
expanded section on filter design, signal integrity,
and signal return currents on PCB's
and a free 45 min. individual product design evaluation

Tuesday, October 7 - Thursday, October 9, 2014
Hilton Hotel, Northbrook, IL



\$300 discount if you register by September 16, 2014

We are also offering a special **50% discount** on the October seminar to attendees of previous D.L.S. seminars who used the 1st or 2nd edition.

Classes fill quickly so register early

email cgorowski@dlsemc.com or call 847-537-6400

www.dlsemc.com/1001

Don't forget to schedule your free product review when you register.