Three Challenges Facing the Electronics Industry

How testing and certification help manufacturers compete in a changing industry

TÜV Rheinland of North America

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The electronics industry, perhaps more than any other, truly demonstrates the axiom that change is the only constant. Whether it’s smart phones, medical devices, tablets, computers, or other consumer electronics, the one regular occurrence is change. Features and functions are revised, which alter cost and affects acceptance and distribution. These are just a few of the numerous variables in a product’s life cycle.

But however challenging change may be, it also creates opportunity. Electronics manufacturers that can keep pace with change and capitalize on it will gain the lion’s share of the market.

What are the major changes happening in October 2012? That depends on where you are and what you sell. From the perspective of a third-party testing and certification company, there are three major areas of change right now: evolving regulatory requirements, the expanding development of electronic medical products, and the greening of the global consumer.

This article briefly discusses these areas and addresses how a manufacturer can position itself to capitalize on the change, rather than being blindsided by it.

Changing regulatory requirements

As most electronics manufacturers know, regulatory requirements vary from one part of the world to another. U.S. regulatory requirements are different from the European Union (EU) requirements, which are different from those of the Commonwealth of Independent States, and so on. Fortunately, manufacturers can turn to internationally recognized third-party testing and certification organizations to cost-effectively garner approvals for the markets in which they seek to sell.
Manufacturers that work with testing labs early in the product design process can avoid high costs and long delays by designing for compliance.

But there is more to know than just different regions’ regulations. Knowledge of pending changes to existing regulations can also be critical to a product’s success.

For example, one such change has to do with the United Kingdom’s Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS). Currently, if a product contains any of six banned substances, it is not eligible for sale in many areas throughout the world. There is a movement to add an additional seven substances to the list, with a decision expected by 2014. Building a new product now that does not contain any substances that could be banned in the future is certainly an advantage.

Another example has to do with the EU’s low voltage directive, EN60950-1:2006+A11:2009+A12:2011+A1:2010, which takes effect in January 2013. Manufacturers of IT and communication technology equipment, office appliances, and multimedia equipment will need to have their products recertified to incorporate certification for items such as moving parts, over-circuit protection, insulation requirements, UV-radiation, and others. Those manufacturers that already have taken care of these requirements have a definite leg up on those who have not.

TÜV Rheinland open house

Readers who would like to learn about the latest test methods and regulatory requirements for electronic devices can attend TÜV Rheinland’s open house on Fri., Oct. 26, 2012, at its Pleasanton, California, laboratory from 8 a.m.–5:30 p.m. Pacific.

Experts from TÜV Rheinland will hold brief seminars on the changing regulations governing electronic devices in virtually all industries, including wireless and medical devices, solar products, global market access, electromagnetic compatibility (EMC) approvals, semiconductor equipment, and industrial machinery.

Register here.

The future of electronic medical products

The emerging wireless health arena has created an entirely new category of electronic devices: products that combine wireless and medical functions for a variety of health, wellness, and clinical applications. This groundbreaking market is already booming and it is expected to become vast and international in scope. For manufacturers planning to produce wirelessly connected medical and personal health devices, competition will be fierce.
Although remote health monitoring is a primary driver of the wireless medical device industry, the products targeting the wireless health market will serve many other needs as well, including diagnosis and treatment, epidemic monitoring, accessing electronic medical records, and communications between healthcare providers and patients.

Despite the many opportunities the wireless medical device arena offers, supplying products to this market will not be business as usual, even for manufacturers that already serve the medical or wireless device sectors.

Regulatory forces governing product commercialization represent both wireless and medical industries, and the product testing and certification requirements for both industries must be satisfied before products can be sold on the market.

**The greening consumer**

The low-carbon footprint is becoming a reality. After decades, if not centuries, of looking the other way, the Western world’s citizens are embracing pro-environmental lifestyles, and they are not doing it slowly. Count the hybrid vehicles on the street or walk down the organic aisle in a grocery store; it is readily apparent that the late Jim Henson would find the tune “It’s Not Easy Being Green” a lot less relevant today.

Electronics manufacturers can take advantage of this rush to green by making their products environmentally friendly, and working with a testing and certification company can help them achieve this goal.

One method involves the use of the ENERGY STAR certification. ENERGY STAR is a program of the Environmental Protection Agency (EPA) that certifies electrical products that are low consumption and nonpolluting. Having such a designation means the product complies with all standards and requirements set by the EPA and will be competitively positioned against noncertified competitive products.

Another available option involves green certification. TÜV Rheinland recently began offering a new Green Product Certification that combines the mandatory EU requirements and TÜV Rheinland’s additional green product requirements into one integrated test mark. Prerequisites for Green Product Certification include product safety assessment and a report on the company’s corporate social responsibility.

**Conclusion**

There is no question that the world can be a brutal to manufacturers that don’t stay abreast with change. One needs only to compare Blackberry-maker Research in Motion’s stock prices from May 2008 and today to see how tough it can be. However, change simply cannot be avoided, and electronics manufacturers that take advantage of change—indeed, even create it—have a better chance to thrive. Third-party product testing and certification by a respected and internationally known organization can help make it a reality.
About The Author

TÜV Rheinland of North America

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