MultiPoint
A Rhein Tech EMC Regulatory Update

August 2009

RF/EMC Regulatory Update

Dear Colleague,
We have provided typical questions and answers that represent in most cases technical opinions with justification in FCC and CE requirements. The particulars of the product for certification must be considered with respect to the applicability of these questions and answers. We hope you find our update valuable and welcome your feedback if you have any special needs or questions. Call us at 703-689-0368 for your testing requirements. You can view archived issues of MultiPoint at our web site.

FCC PLB Requirements

QUESTION: The firm I work for manufactures Personal Locator Beacons (PLB) with homing frequency at 121 MHz and Digital Selective Calling alerts at 156.525 MHz. What FCC test procedures apply to this device?

ANSWER: The FCC measurement procedure for testing PLB transmitters with a homing frequency at 121 MHz is located in Part 2(N) and is online at this link. The DSC standards are contained in an International Telecommunications Union (ITU) document cited in Section 80.359(b) of the FCC rules. It appears that budget and staff constraints at the Wireless Telecommunications Bureau (WTB) of the FCC have contributed to the Marine standards for the FCC being out dated or surpassed by the international regulations. In most cases, the FCC follows the international regulations but also allows the DSC test procedures for the 156.525 MHz transmitter contained in RTCM Recommended Standards for Maritime Survivor Locating Devices (MSLD) Version 1.0 developed by Radio Technical Committee on Marine Services (RTCM) Special Committee number 119. This standard, RTCM Paper 240-2004/SC119- STD - RTCM Recommended Standards for Maritime Survivor Locating Devices (MSLD) version 1 DEC 10 can be obtained by telephone at 703-527-2000 from the RTCM.

FCC Changes to Grantee Address

QUESTION: Our company headquarters have recently changed. Do we have to update the FCC with the new address? If so, how do we do this?

ANSWER: Changes to address, contact information or company name for a Grantee Code can be done on-line at this link.

Address and contact information can be changed on line, using the Grantee Code and Grantee Code Registration Number, without FCC intervention and changes take effect immediately. However, changes in name, ownership, assigning, or transferring of responsibility associated with a Grantee Code require FCC review and approval. The website will require uploading of supporting documentation necessary for the FCC to review and approve the change. The documents must contain a general statement explaining the reason for the name change, merger, buy-out, etc. with supporting correspondence from all parties involved.

Example: Company A (Old Grantee) - declaring transfer of responsibility to Company B (New Grantee) Company B (New Grantee) - declaring they accept responsibility for continued compliance of products previously the responsibility of Company A (Old Grantee). The documents should be on company letterhead and the information should include names, contact information, and titles. Acceptable file formats are listed as a drop down on the attachments page of the Grantee Code Modification module. A change request should be approved within four business days. Copies of the grants with the corrected address may be obtained on the website generic search. The Grantee Code is the first three characters of the FCC ID. The remaining characters uniquely identify an individual grant associated with a specific type of device or product. Normally one Grantee Code will have many grants associated with it. Modifying the address, contact information, or company name through the online process will change the grantee address of all grants that are prefixed with this one Grantee Code. If the Grantee Code Registration Number is not known, please contact easadmin@fcc.gov. Include sufficient information in the request to substantiate that the requestor is the Grantee of record. Assigned since April 2005, the Grantee Code Registration Number is a secure access pin that allows modification of the company name associated with a Grantee Code as well as a change in address or other Grantee information. This Grantee Code Registration Number should be shared only with individuals authorized by the Grantee to make changes.

FCC Rules for Garage Door Opener

QUESTION: Our firm plans to manufacture a universal garage door opener which simultaneously transmits on four discrete frequencies between 300-400 MHz. What are the FCC's rules for our device?

ANSWER: An intentional radiator operating in the 300- 400 MHz frequency band is subject to the technical and administrative requirements in 47 CFR Part 15. The technical requirements for garage door openers and remote control and security devices are in Part 15.231. However, the simultaneous transmission of multiple control signals of an intentional radiator under Part 15.231 is not permitted.

EU Conformity

QUESTION: The company I work for designs and manufactures amplifiers. How is European Union conformity shown for a device that has multiple sources for "critical components?" Radio frequency parts, such as those in power amps, have different manufacturers but they use the same encapsulation. What kind of product change for CE needs to involve a Notified Body?

ANSWER: There is not a rule or strict requirement on this in the EU as there are no filings, no regulatory certifications, no permissive changes, etc. The manufacturer needs to look at the changes he has made and make a decision regarding how confident he is in the continued compliance of the device. If the manufacturer makes changes of small components (resistors, capacitors in non-critical sections other than Voltage Control Oscillator (VCO), Power amplification (PA) sections etc.) that are deemed not to affect the Electromagnetic Interference (EMI) performance of the device, then the decision may be to do nothing. However, if the component is critical, such as the VCO, PA or filters, then there may be a need to get confidence in the device compliance from other means. If the manufacturer does not and their product is found to be failing, then they will be asked to show proof of compliance. At some point with critical component changes, they have to decide if the device they are now selling is no longer the device they had tested and reviewed. If they perform some measurements on the device and find the profile looks similar then they may decide to keep the results of his investigations on file (in case someone requests evidence) and continue selling the device. However, if a critical component has changed and he feels he has changed the device's performance thus he no longer has the confidence to make a decision on compliance, then a safe recommendation would always be to have some tests performed and get a new opinion from a Notified Body. The important thing to remember in any CE Marking of products placed on the EU market is the decision of compliance is always 100% up to the manufacturer or his designated agent. It is also the responsibility of the manufacturer or his designated agent to keep such information in the Technical Construction File for reference when needed.

INTERNATIONAL UPDATE

EU: NEW ETSI STANDARDS RECENTLY RELEASED

This is a shortened list of the new ETSI standards published during the past month:

- **ETSI EN 302 217-3 V1.3.1** (July 2009) Fixed Radio Systems; Characteristics and requirements for point-to-point equipment and antennas; Part 3: Equipment operating in frequency bands where both frequency coordinated or uncoordinated deployment might be applied; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
- **ETSI EN 302 625 V1.1.1** (July 2009) Electromagnetic compatibility and Radio spectrum Matters (ERM); 5 GHz BroadBand Disaster Relief applications (BBDR); Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
- **ETSI TR 102 699 V1.1.1** (July 2009) Electromagnetic compatibility and Radio spectrum Matters (ERM); Analysis of compliance of Forward Link Only air interface specification (ETSI TS 102 589) with DVB-T Harmonized Standard EN 302 296

See new ETSI website for additional information.

EU: NEW IEC STANDARDS RECENTLY RELEASED

This is a shortened list of the new IEC standards published during the past month:

- **IEC 61000-4-35** (7/23/2009)Electromagnetic compatibility (EMC) - Part 4-35: Testing and measurement techniques - HPEM simulator compendium
- **IEC 61000-4-13** (7/30/2009) Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests
- **IEC 62153-4-12** (8/6/2009) Metallic communication cable test methods - Part 4-12: Electromagnetic compatibility (EMC) - Coupling attenuation or screening attenuation of connecting hardware - Absorbing clamp method
- **IEC 62153-4-13** (8/6/2009) Metallic communication cable test methods - Part 4-13: Electromagnetic compatibility (EMC) - Coupling attenuation of links and channels (laboratory conditions) - Absorbing clamp method
- **IEC 62153-4-11** (8/7/2009) Metallic communication cable test methods - Part 4-11: Electromagnetic compatibility (EMC) - Coupling attenuation or screening attenuation of patch cords, coaxial cable assemblies, pre-connectorized cables - Absorbing clamp method
- **IEC 61000-3-2 Corr.1** (8/12/2009) Corrigendum 1 - Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)
- **IEC 61000-4-14** (8/12/2009) Electromagnetic compatibility (EMC) - Part 4-14: Testing and measurement techniques - Voltage fluctuation immunity test for equipment with input current not exceeding 16 A per phase

See IEC for additional information.

CONTACT RHEIN TECH FOR YOUR INTERNATIONAL REGULATORY APPROVALS

Rhein Tech Laboratories' worldwide homologation services offer the best strategy for gaining product approval in a large number of target countries. In addition, we reduce the number of emissions, immunity, and product safety tests required by defining the minimum subset of regulatory standards at the onset, thus reducing the time and cost to enter multiple target countries. We offer research and approvals in over 50 countries.

ABOUT US

RTL has provided EMC compliance engineering & testing services since 1988 and has a superior reputation with both the Federal Communications Commission and others in the industry. RTL provides testing services to meet the emissions, immunity, and safety requirements of the European EMC Directive and the EU R&TTE Directive, all FCC rules and regulations, VCCI (Japan), ACMA (Australia), and other international standards.

A special thank you to those who have recommended and contributed articles for our newsletter. Please continue to forward new and interesting material to our attention: multipoint@rheintech.com. We respect the privacy of our customers and colleagues. If you would like to cancel your MultiPoint updates, please follow the instructions at the end of this email. The information in the MultiPoint update is subject to change without notice.

Learn More

email: multipoint@rheintech.com
phone: 703-689-0368
web: http://www.rheintech.com

Last revised: August 14, 2009

Rhein Tech Laboratories, Inc. | 360 Herndon Pkwy, #1400 | Herndon | VA | 20170