



July 2006

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 at 703-689-0368 or view archived issues of MultiPoint at our [web site](#).

FCC User Manual Format and Requirements

QUESTION: Our company is selling a product and would like to provide the user's manual as a CD rather than a hard copy booklet. Will the FCC allow warning statements and other user information to be placed on a CD instead of in a hard copy user's manual?

ANSWER: Part 15 of the FCC Rules require specific information to be provided to the user of a Part 15 device. The information is provided to the consumer at the time of purchase and is allowed to be in either a hard copy user's manual or electronically (i.e., on CD or website). [Section 15.21](#) and [Part 15.105](#) provide further guidance on the required user information.

FCC Requirements for Modular Transmitters with Different Antennas

Question: Our firm is repackaging and selling a previously FCC certified modular transmitter. We are changing the existing antenna to one with a higher gain. Are we required to retest the device with the new antenna or can we use the existing FCC ID?

Answer: Re-testing and filing is required by the FCC and this can be done as a Class II Permissive Change if certain criteria is met. The Permissive Change requirements for modifying a certified intentional radiator are given in [47 CFR 2.1043, Paragraph \(b\) \(4\) and \(f\)](#). These requirements specify that the original grantee of Certification is the only party that can request a Permissive Change to a Part 15 or 18 device.

If your firm is not the original Grantee of the modular transmitter, then you must obtain approval and have the original grantee file for a Class II Permissive change with the new antenna. If the original Grantee is unwilling to file a Class II Permissive Change, then your firm would need to file a new application for Certification under a different FCC ID number and your company's name.

FCC Test Report for Canadian Approvals

QUESTION: Our company's product, an RF transceiver, is already FCC certified and sold in the U.S. We would now like to market the product in Canada. Will Industry Canada accept the existing FCC test report?

ANSWER: Industry Canada will accept the FCC test report if it meets the following conditions:

1. The test report must be less than one year old.
2. If the type of measurement was "radiated", the laboratory who did the testing must have their Test Site (OATS or Anechoic chamber) approved by Industry Canada.
3. If the type of measurement was "conducted", the laboratory who did the testing is not required to have their test site approved by Industry Canada.
4. A cross-reference table must be submitted with the test report to show that the equipment meets all of the applicable Canadian requirements. In some cases, approved frequencies in the US are not yet allowed by Industry Canada.

[Canadian Frequency Allocation Table](#)

Canadian Approval of 4.9 GHz Device

QUESTION: We are a manufacturer of a base station operating in the 4.9 GHz band for public safety applications. We currently have FCC certification through Part 90 Subpart Y - Regulations Governing Licensing and Use of Frequencies in the 4940 - 4990 MHz band. Does Industry Canada allow use of this spectrum, and if so, what is the appropriate radio standard?

ANSWER: Industry Canada currently does not allow use of this band for applications as described in your question. However, they will allow use of this band in the near future for public safety applications and will publish a new standard (RSS-111). Keep an eye on the Industry Canada web site for the release date.

INTERNATIONAL UPDATE

EU: NEW ETSI STANDARDS RELEASED THIS MONTH

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

- [ETSI TS 102 362-1 V1.2.1 \(June 2006\)](#) Electromagnetic compatibility and Radio spectrum Matters (ERM); Conformance testing for the Digital Mobile Radio (DMR); Part 1: Protocol Implementation Conformance Statement (PICS) proforma
- [ETSI TS 102 362-2 V1.2.1 \(June 2006\)](#) Electromagnetic compatibility and Radio spectrum Matters (ERM); Conformance testing for the Digital Mobile Radio (DMR); Part 2: Test Suite Structure and Test Purposes (TSS&TP) specification
- [ETSI TS 102 362-3 V1.2.1 \(June 2006\)](#) Electromagnetic compatibility and Radio spectrum Matters (ERM); Conformance testing for the Digital Mobile Radio
- [ETSI EN 302 217-4-2 V1.2.1 \(June 2006\)](#) Fixed Radio Systems; Characteristics and requirements for point-to-point equipment and antennas; Part 4-2: Harmonized EN covering essential requirements of Article 3.2 of R&TTE Directive for antennas
- [ETSI TR 102 400 V1.2.1 \(July 2006\)](#) Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Intelligent Transport Systems (ITS); Road Traffic and Transport Telematics (RTTT); Technical characteristics for communications equipment in the frequency band from 63 GHz to 64 GHz; System Reference Document

See [ETSI](#) for additional information.

EU: NEW CENELEC STANDARDS RELEASED THIS MONTH

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

- **EN 50083-2:2006** Cable networks for television signals, sound signals and interactive services -- Part 2: Electromagnetic compatibility for equipment
- **EN 50400:2006** Basic standard to demonstrate the compliance of fixed equipment for radio transmission (110 MHz - 40 GHz) intended for use in wireless telecommunication networks with the basic restrictions or the reference levels related to general public exposure to radio frequency electromagnetic fields, when put into service
- **EN 50401:2006** Product standard to demonstrate the compliance of fixed equipment for radio transmission (110 MHz - 40 GHz) intended for use in wireless telecommunication networks with the basic restrictions or the reference levels related to general public exposure to radio frequency electromagnetic fields, when put into service
- **EN 50420:2006** Basic standard for the evaluation of human exposure to electromagnetic fields from a stand alone broadcast transmitter (30 MHz - 40 GHz)
- **EN 50421:2006** Product standard to demonstrate the compliance of stand alone broadcast transmitters with the reference levels or the basic restrictions related to public human exposure to radio frequency electromagnetic fields (30 MHz - 40 GHz)
- **EN 60335-2-74:2003/A1:2006** Household and similar electrical appliances - Safety -- Part 2-74: Particular requirements for portable immersion heaters
- **EN 61924:2006** Maritime navigation and radiocommunication equipment and systems - Integrated navigation systems - Operational and performance requirements, methods of testing and required test results
- **EN 60335-2-76:2005/A1:2006** Household and similar electrical appliances - Safety -- Part 2-76: Particular requirements for electric fence energizers
- **EN 61996-2:2006** Maritime navigation and radiocommunication equipment and systems - Shipborne voyage data recorder (VDR) -- Part 2: Simplified voyage data recorder (S-VDR) - Performance requirements, methods of testing and required test results
- **EN 60204-1:2006** Safety of machinery - Electrical equipment of machines -- Part 1: General requirements See www.cenelec.org 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 62271-201 (June 28, 2006)** High-voltage switchgear and controlgear - Part 201: AC insulation-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV
- **IEC 61009-1 (June 28, 2006)** Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1: General rules
- **IEC 61587-3 (June 27, 2006)** Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks
- **CISPR 11-am2 (June 26, 2006)** Amendment 2 - Industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement
- **IEC 61008-1 (June 23, 2006)** Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1: General rules
- **IEC 60603-7-7 (June 22, 2006)** Connectors for electronic equipment - Part 7-7: Detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 600 MHz
- **ISO/IEC 18000-6-am1 (June 19, 2006)** Amendment 1 - Information technology - Radio frequency identification for item management - Part 6: Parameters for air interface communications at 860 MHz to 960 MHz - Extension with Type C and update of Types A and B

See [IEC](http://www.iec.ch) for additional information.

US: NEW RULES FOR CERTIFYING 5 GHz U-NII DEVICES

On June 30, 2006, the FCC released ET Docket No. 03-122, adopting revised measurement procedures for certifying U-NII devices in the 5 GHz band. The revised measurement procedure will ensure all applications for equipment certification of U-NII devices filed on or after July 20, 2006 will comply with all U-NII requirements for these bands. The FCC also responded to requests for clarification or reconsideration of the rules for unlicensed National Information Infrastructure (U-NII) devices in the 5.25- 5.35 GHz and 5.47-5.725 GHz bands, including Radio Local Area Networks (RLANs).

U-NII devices are unlicensed intentional radiators that operate in the frequency bands 5.15-5.35 GHz and 5.47-5.825 GHz and use wideband digital modulation techniques to provide a wide array of high data rate mobile and fixed communications. The FCC amended Part 15 of the rules to make 255 MHz of spectrum available in the 5.47-5.725 GHz band for U- NII devices. This action aligned the frequency bands used by U-NII devices in the US with the frequency bands used by U-NII devices internationally.

In order to operate in the newly available U-NII spectrum, devices must meet certain technical requirements. Specifically, the new rules require that U-NII devices operating in the 5.25-5.35 GHz and 5.47-5.725 GHz bands employ DFS in order to avoid causing interference to Federal Government radar systems. Before beginning a transmission, a U-NII device equipped with DFS capability must continually monitor the radio environment for the presence of a radar. If the U-NII device determine the presence of a radar, then the U-NII must either select another channel or enter a "sleep mode" if no channels are available. The new rules also require U-NII devices to employ a TPC mechanism when operating in the 5.25-5.35 GHz and 5.47-5.725 GHz bands to further protect operations in the Earth Exploration-Satellite Service (active) (EESS) and the Space Research Service (active) (SRS).

In addition, the FCC provided an interim measurement procedure to be used by the FCC and others in determining whether U-NII devices comply with the rules. The revised DFS measurement procedure includes modified definitions, technical requirements (e.g., detection thresholds and new response requirements), radar test waveforms, test procedures, and test report guidelines.

[ET Docket No. 03-122](#)

EU: THE NEW APPROACH

The EU New Approach is a legislative technique used for technical harmonization and aimed ensuring a high level of protection of health and safety in Europe. The EU Commission intends to present a legislative proposal by the end of 2006 to simplify the existing legal framework and its implementation through a clearer and more efficient distribution of responsibilities between the economic operators and the public authorities, as well as between European and national levels. The overall strategy is to balance out the pre-marketing elements (e.g. conformity assessment etc) with appropriate post-market elements (reinforced market surveillance). The main elements are:

- Reinforcing quality of and confidence in the work of Notified Bodies (e.g. certification bodies, laboratories).
- Strengthening the role of accreditation.
- Strengthening the CE marking by better policing and ensuring a clear meaning for all parties.
- Ensuring consistency of concepts and definitions.
- Clarifying responsibilities of economic operators and ensuring traceability.
- Reinforcing and coordinating market surveillance systems.

The future proposal is outlined in working document CERTIF 2005-16 Rev 2, which is currently subject to public review. Additionally, the EU Commission has prepared a questionnaire on specific proposal aspects and is seeking feedback by July 26, 2006.

[Draft of CERTIF 2005-16](#)

[Questionnaire Link](#)

EU: UPDATED LIST OF SPECTRUM AUTHORITIES

Recently, the EU Commission created a new web page listing the contact information for the EU Spectrum Authorities. Per Article 6.4 of Directive 1999/5/EC, which applies specifically to radio equipment, the manufacturer of radio equipment operating in non-harmonized frequency bands must inform the relevant member state's national Spectrum Authority of its intention to sell the equipment in their country. This notification must be given four weeks prior to placing the equipment on the market. The notification must provide information about the radio characteristics of the equipment (in particular frequency bands, channel spacing, type of modulation and RF-power) and the identification number of the Notified Body.

[List of EU Spectrum Authorities](#)

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: July 11, 2006