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Update on Industry Canada's Standards Activities



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Canada 

Update on RSS



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§RSS-133 (Issue 5) - 2 GHz Personal Communication Services (SRSP-510)

§RSS-137 (Issue 2) Location and Monitoring Service (902 - 928 MHz)

§RSS-139 (Issue 2) - Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1755 MHz and 2110-2155 MHz (SRSP-513)

§RSS-220 (Issue 1) – Device using Ultra-wideband (UWB) Technology.



Current Activities (1)



RSS to be withdrawn

§RSS-128 (Issue 2 Revision 1)

- Plan to rescind due to TDMA IS-136 standard no longer in service

Ready for Gazetting

§RSS-102 (Issue 3) - Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)

- Base Station issues (scope)
- Measurement Procedure to extent SAR frequencies up to 6 GHz., measurement procedures for Tx/Simultaneous transmission., 3G Devices , 802.11 a/b/g transmitters, laptop computer with antennas built-in on display screens and licensed modules.



Current Activities (2)



Ready for Gazetting cont'd

§RSS- 111 (Issue 3) Broadband Public Safety Equipment Operating in the Band 4940-4990 MHz

- Update Industry Canada web site link information
- Specify equipment's maximum permissible channel bandwidth of 20 MHz.

§ RSS- 135 (Issue 2) Digital Scanner Receivers

- Reformat to reflect the current RSS format.

§RSS-215 (Issue 2) Analogue Scanner Receivers

- Reformat to reflect the current RSS format.



Current Activities (3)



Discussion within RABC WG



§RSS-127 (Issue 1) – Air-Ground Equipment Operating in the Bands 849-851 MHz and 894-896 MHz
- Completed

Ready to be circulated to the RABC

§RSS-141 (Issue 2) – Aeronautical Radiocommunication Equipment in the Frequency Band 117.975-137 MHz
-To include VHF Digital Link (VDL) equipment

Revisions and New RSSs in progress:

§RSP-100 (Issue 10)- Radio Equipment Certification Procedure
-To add form for Canadian Representative

§RSS-Gen (Issue 3) – General Requirements for Equipment Certification
-Transfer Table 1, Restricted Frequency Bands and Tables 2 and 3 General Field Strength Limits for Transmitter and Receiver from RSS-210 and 310
-Clarification on definition “Maximum Conducted Output Power”



Current Activities (4)



Revisions and New RSSs in progress cont'd

§RSS-131 (Issue 3) – Zone Enhancers for the Land Mobile Service

- To specify that modulated signal to be used in the testing.
- To require that the intermodulation test to be done with 3 signal test.
- Reformat to reflect the current RSS format.

•RSS-134 (Issue 2) - 900 MHz Narrowband Personal Communication Service

- Reformat to reflect the current RSS format.
- Revise the resolution bandwidth for measuring unwanted emission.

§RSS-170 (Issue 2) – Mobile Earth Station

- Revisit to be in line with international standard for mobile earth station
- Include certification requirements for Ancillary Terrestrial Components (ATCS) in the 1.6/2.4 GHz



§RSS-196 (Issue 1) – Point-to-Multipoint Broadband Equipment Operating in the Bands 512-608 MHz and 614-698 MHz



§RSS-199 (Issue 1)- Broadband Radio Service Equipment Operating in the Band 2500-2690 MHz

- Fixed Services covered in actual RSS-193

Current Activities (5)



Revisions and New RSSs in progress cont'd

- § **RSS-210** (Issue 8) – Low Power, Licence-Exempt Devices (Category I)
- Tank Level Probing Radars operating in the band 75 GHz - 85 GHz
 - Transfer Tables 1, 2 and 3 to RSS-Gen.
 - FM modulator limits harmonized with the FCC



- § **RSS-236** (Issue 1) – ~~RSS-136 (Issue 5)~~ Land and Mobile Station Radiotelephone Transmitters and Received Operating in the 26.960 - 27.410 MHz General Radio

- Reformat and renumber
- Revisit the limits for the unwanted receiver emission
- Review to harmonize with FCC standard



- § **RSS-238** (Issue 1) – ~~RSS-138 (Issue 1)~~ Commercial Shipborne Radar in the 2900-3100 MHz, 5470-5650 MHz and 9225-9500 MHz Bands (Feb 2004)

- § **RSS-243** (Issue 3) - Active Medical Implants Operating in the 402-405 MHz Band

- To add 401-402 MHz and 405-406 MHz Bands.
- To introduce Medical Data Service (MEDS) radio capability.



Current Activities (6)



- Revisions and New RSSs in progress cont'd



§ **RSS-282** (Issue 1) – ~~RSS-182 (Issue 1)~~ Maritime Radio Transmitters and Receivers in the Band 156-162.5 MHz (Sept 2003)

- Require all VHF radiotelephones (except portable radio) be GMDSS-compliant or GMDSS compatible.
- Update contact information
- Re-format and renumber.

§ **RSS-310** (Issue 3) – Low Power, Licence-Exempt Devices (Category II)

- Transfer Tables 1, 2 and 3 to RSS-Gen.



Current Activities (7)



Future Plan

- § **RSS-119** (Issue 10) -Land Mobile and Fixed Radio Transmitters and Receivers Operating in the Frequency Range 27.41-960 MHz
 - Revise to reflect the new band plan and technical requirements for public safety equipment in the 700 MHz.

- § **RSS-123** (Issue 2) - Low Power Licensed Radiocommunication Devices
 - Simplify and reformat to reflect the current RSS format.
 - Update related documents
 - Revise to reflect new policy decision if necessary

- § **RSS-142**(Issue 4) – Narrowband Multipoint Communication Systems in the Bands 1429.5-1430.5 MHz and 1493.5-1496.5 MHz MHz
 - Update Frequency Band to reflect new IC policy below 1.7 GHz

- § **RSS-???**(Issue 1) – Wireless Broadband Services Equipment Operating in the Band 3650-3700 MHz



Update on ICES (1)



Ready for Gazetting:

- § **ICES-002** (Issue 5) Spark Ignition Systems of Vehicles and Other Devices Quipped with Internal Combustion Engines (to recirculate)
 - Clarification for testing hybrid vehicles

- § **ICES-005** (Issue 3) Radio Frequency Lighting Devices
 - To harmonize with FCC Part 18 requirements for RFLD, table showing range of frequency measurement required for radiated emissions measurement vs. frequency band in which RFLD operates was added.

- **ICES-006** (Issue 2) AC Wire Carrier Current Devices (Unintentional Radiators) - (Recirculated October 16)
 - To harmonize with the FCC in terms of radiated emission limits
 - To include definition of In-house BPL
 - To harmonize with the FCC in terms of In-situ testing for carrier current devices, and reference ANSI C63.4 for method of measurement.



Update on ICES (2)



Discussion within RABC WG



§ ICES-007 (Issue 1) Access-Broadband over Powerline (BPL) Devices (Unintentional Radiators)

- New standard to address BPL equipment specifications.



§ GL-06 (Issue 1) Guideline for the Installation and Operation of Access BPL Systems

- Guideline in conjunction to ICES-007 which addresses the deployment of BPL system and coordination.

Future Work

§ ICES-001 (Issue 5) ISM Radio Frequency Generator

- To update reference publication once CSA adopts CISPR 11 Edition 4 Amend 1 and Amend 2.
- Removal of the phrase: ‘These limits do not apply to ISM radio frequency generators while being tested for compliance with this standard.’”





Future Work-continue

- § **ICES-002** (Issue 6) Spark Ignition Systems of Vehicles and Other Devices Quipped with Internal Combustion Engines (to recirculate)
 - To update reference publication once CSA adopts CISPR 12 Edition 6 (with Canadian deviations – removal of average detector limits/measurements (narrowband limits/measurements)).

- § **ICES-003** (Issue 5) Digital Apparatus
 - To update the reference publication once CSA adopts CISPR 22 Edition 6 (ICES-003 will date in which above 1 GHz testing requirements become in effect – TBD)

- § **ICES-004** (Issue 4) Alternating Current High Voltage Power System
 - To update the reference publication. Currently, reviewing CISPR 16 series at the CSA level

- § **ICES-005** (Issue 4) Radio Frequency Lighting Devices
 - To update the reference publication. Currently, reviewing CISPR 16 series standards at the CSA level



Human Exposure to Non-Ionizing Radiation – Report on Standardization (1)



§ **IEEE 1528-200x (draft) Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques**

- Includes procedure for 3 GHz to 6 GHz
- Balloting Closing Date: 2009-02-20
- Results: 25 approve, 0 disapprove, 4 abstain (total of 285 comments)

§ **IEC 62209-1 Ed.1 (2005-02) Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)**

- Maintenance Phase
- Result Date: 2010

§ **IEC 62209-2 Ed.1: Human Exposure to Radio Frequency Fields from Handheld and Body-Mounted Wireless Communication Devices - Human models, Instrumentation, and Procedures Part 2: Procedure to determine the specific absorption rate (SAR) for mobile wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)**

- CDV Closing Date: 2009-03-06
- Results: 21 P-members in favour, 2 P-members against (US and Denmark)
- Next step: FDIS



Human Exposure to Non-Ionizing Radiation – Report on Standardization (2)



§ IEEE C95.3 (2002-12) - Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz–300 GHz

- IEEE TC34 SC2 (Computational standards) will ask the TC95 SC1 to modify the IEEE C95.3 for the SAR averaging technique to be aligned with the IEEE 1528.x standards (drafts)

- (1) IEEE 1528.1 *Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz - 6 GHz: General Requirements for using the Finite Difference Time Domain (FDTD) Method for SAR Calculations*
- (2) IEEE 1528.2 *Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz - 6 GHz: Specific Requirements for Finite Difference Time Domain (FDTD) Modeling of Vehicle Mounted Antennas*
- (3) IEEE 1528.3 *Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz - 6 GHz: Specific Requirements for Finite Difference Time Domain (FDTD) Modeling of Mobile Phones/Personal Wireless Devices*
- (4) IEEE 1528.4 *Recommended Practice for Determining the Peak Spatial Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz - 6 GHz: Requirements for Using the Finite-Element Method for SAR Calculations*

