



File: 3500 (RSS-210)

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Dear Dr. McCaughern

**Radio Advisory Board of Canada
Response to Canada Gazette Notice SMSE-022-01 dated 2001-11-24
Low Power Licence-Exempt Radiocommunication Devices (All Frequency
Bands) (RSS-210)**

General

The Radio Advisory Board of Canada is pleased to respond to *Canada Gazette* notice SMSE-022-01.

The Board's comments follow.

Specific Comments

- a) With ref to RSS-210 Preface item (4) (on section 6.2.2(o)(a3) on 2.4 GHz spread spectrum), the Preface failed to mention new paragraph 2 of (a3) on greater than 1.0 MHz bandwidth systems using at least 15 hop frequencies.
- b) The Preface item (4) also failed to mention a new 125 mW power category permitted for less than 75 hop frequencies. This new category is found in the main text under the heading: "Output Power and EIRP Limits" of section (a3). Furthermore, this paragraph ends with "See (d) below for special conditions". However, if we turn to that section (d), it makes no reference to this 125 mW new category. So the reader can be confused.
- c) Still commenting on item (4) of the Preface, if we turn to the main text, section 6.2.2(o)(a3) headed by "Output Power and EIRP Limits", we find in the second paragraph (on 5.8 GHz systems) a new sentence: "However, remote stations of point-to multipoint systems shall be permittedoutput powers". The Preface fails to point this out.

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d) Preface item (5) on section 6.2.2(o)(b) talked of "Increased EIRP limit for 2.4 GHz remote stations.....". If we turn to the main text of section 6.2.2(o)(b) second paragraph under the heading: "Output Power and EIRP Limits", it talks of remote stations being permitted a higher EIRP immediately after talking of 5725-5850 MHz systems. So one can only infer this new provision applies to the 5.8 GHz band, not to 2.4 GHz band. This should be clarified by IC.

e) Preface item (7) mentioned "Section 6.2.2(o)(q1)" This is a typo: it should read "Section 6.2.2(q1)".

f) Preface item (10) which reads: "Table 5 and 10 FRS Telephones (New)" should be amended to read: "Tables 5 and 10 - new bands added: 462.5625-462.7125 MHz; 467.5625-467.7125 MHz; 46.7-46.9 GHz; 59-64 GHz; 76-77 GHz".

g) The 3 new bands 46.7-46.9 GHz, 59-64 GHz and 76-77 GHz are missing from Tables 5 and 10.

h) In Table 5, one of the (FRS) bands (467.5625-467.5625 MHz) does not match with the FRS bands of section 6.2.2(L2.1): typo error.

Furthermore on the extreme RHS of item L2.1 ("usage for only" box), we see a blank box. It is suggested that the text "Family radio service" should be in this box.

i) Section 6.2.2(t1) (1) uses the text "restricted to". Past experience shows that French translators often change this to "prohibited" which of course is the opposite of what is intended. The French text of Issue 5 has not been checked; this is left to RABC/IC. Anyway other readers (from Norway to Japan) often had difficulty getting the sense of this word "restricted". Past versions of RSS-210 had avoided this word and used the equivalent "only for".

(j) Sections 6.2.2(t1) and (t2) use the microwatt symbol but only the W gets converted from Wordperfect to WORD. E.g. 60 microwatts/cm square becomes 60 W/cm square. To avoid such problems, the Tables (e.g. table 1) use u and not the micro symbol. Most engineers would know what 60 uW means whether it is defined or not (although in the Tables, u is defined).

k) With ref to section 6.2.2(t1) on 46.7-46.9 GHz and 76-77GHz...., the text immediately below Table 6.2.2(t1) is denoted by asterisks **. It says: " fundamental emissions from international radiators operating in this section shall not be located in the frequency bands 54-72 MHz, 76-78MHz, 174-216 MHz or 470-806 MHz....."

Question: why is this paragraph here when the heading of the section 6.2.2(t1) deals with the super high frequencies of 46.7 GHz and above and not the band below 1 GHz ? Surely the fundamental frequencies must lie above 46.7 GHz ?

l) Section 6.2.2(t1)(4)(iv) appears to permit radar output powers per the specification multiplied by the system bandwidth in MHz.

E.g. section 6.2.2(t1)(2) permits 60 μ W/cm square and IC has certified devices in this 76 GHz band, of bandwidth of 52 MHz in some cases and 250 MHz in others. Therefore, using this clause 6.2.2(t1)(4)(iv), the radar can emit $52 \times 60 = 3120 \mu$ W/cm square in

one case and $250 \times 60 = 15,000 \mu\text{W}/\text{cm}$ square in the other. This is highly unlikely to be the FCC's intent. It is the belief of the commenter of RABC that the total power must not exceed $60 \mu\text{W}/\text{cm}$ regardless of the signal bandwidth. Furthermore, the next paragraph, 6.2.2(t1)(4)(v), appears to agree with FCC and not agree with (iv).

m) Section 6.2.2(t2)(2)(ii)(a) mentioned Table 6.2.2(t). Since only Table 6.2.2(t1) is found, this must be a typo error.

n) Section 6.2.2(t2)(4)(iii) mentions the use of 1 MHz resolution bandwidth to measure emissions and so please see item 2 above for similar comment.

o) Section 6.2.2(t2)(7) says : "For all transmissions that emanate from inside a building within any one second interval of signal.....must transmit a transmitter identification at least once."

Question: : are devices installed outside a building exempt from the ID transmission ? FCC rules have ID transmission requirement but it does not seem to limit this only to buildings. If IC exempts those outside buildings, a definition of a building may be required.

Yours truly



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President