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13 Reference: IEEE L802.16-09/0085r1

14
15 September 18, 2009
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17 **Subject: Additional WiMAX Forum TWG Contribution to development of Candidate IMT-**
18 **Advanced RIT based on IEEE 802.16**
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21 Dear Dr. Marks,
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23 As a followup to our previous statement (“WiMAX Forum TWG Contribution to development of
24 Candidate IMT-Advanced RIT based on IEEE 802.16,” of 31 August 2009), WiMAX Forum TWG
25 would like to submit the attached proposed modification (Annex A) to the IMT-Advanced Technology
26 Description Template in IEEE L802.16-09/0103r1 (“[Draft] Submission of a Candidate IMT-Advanced
27 RIT based on IEEE 802.16 (Part 3)”).
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29 More specifically, this contribution proposes to add a Spectrum Emission Mask for 8.75 MHz channel
30 bandwidth for 2.3 GHz band to Description Template table Item 4.2.3.2.23.5 of Section 6 in IEEE
31 L802.16-09/0103r1.
32

33 Thank you very much for your attention to this matter of mutual importance.
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35

36 Sincerely,
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38 Wonil Roh, wonil.roh@samsung.com and
39 Vladimir Yanover vladimir.yanover@alvarion.com
40 Chairs, WiMAX Forum Technical Working Group (TWG)
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ANNEX A: PROPOSED ADDITION TO EMISSION MASK

MS Band Class 1

The Spectrum Emission Mask for 5 MHz bandwidth is specified in **Error! Reference source not found.**

Table 1. Spectrum Emission Mask for 5 MHz Bandwidth Band Class 1

Segment Number	Offset from channel center (MHz)	Integration Bandwidth (kHz)	Allowed Emission Level (dBm/integration BW) at the antenna port.
1	2.5 to < 3.5	50	-13
2	3.5 to < 7.5	1000	-13
3	7.5 to < 8	500	-16
4	8 to < 10.4	1000	-25
5	10.4 to < 12.5	1000	-25

Notes:

1. Δf is defined as the frequency offset in MHz from the center frequency of a 5 MHz channel.
2. Integration Bandwidth refers to the frequency range over which the emission power is integrated.

The Spectrum Emission Mask for 8.75 MHz bandwidth is specified in **Error! Reference source not found.** and **Error! Reference source not found.** depending on the transmit power level.

Table 2. Spectrum Emission Mask for MS with $P_{Tx} \leq 23$ dBm

Segment Number	Offset from channel center (MHz)	Integration Bandwidth (KHz)	Allowed Emission Level as measured at the antenna port
<u>1</u>	<u>4.77 to < 9.27</u>	<u>100</u>	<u>$-[26+7 \times \{(\Delta f -4.77 \text{ MHz})/4.5 \text{ MHz}\}] \text{ dB}$</u>
<u>2</u>	<u>9.27 to < 13.23</u>	<u>100</u>	<u>$-[33+4 \times \{(\Delta f -9.27 \text{ MHz})/3.96 \text{ MHz}\}] \text{ dB}$</u>
<u>3</u>	<u>13.23 to < 17.73</u>	<u>100</u>	<u>$-[37+2 \times \{(\Delta f -13.23 \text{ MHz})/4.5 \text{ MHz}\}] \text{ dB}$</u>
<u>4</u>	<u>17.73 to ≤ 22.5</u>	<u>100</u>	<u>-39 dB</u>

Table 3. Spectrum Emission Mask for MS with $P_{Tx} > 23$ dBm

Segment Number	Offset from channel center (MHz)	Integration Bandwidth (KHz)	Allowed Emission Level as measured at the antenna port
<u>1</u>	<u>4.77 to < 9.27</u>	<u>100</u>	<u>$-[\{(P_{Tx}-23)+26\}+7 \times \{(\Delta f -4.77 \text{ MHz})/4.5 \text{ MHz}\}] \text{ dB}$</u>
<u>2</u>	<u>9.27 to < 13.23</u>	<u>100</u>	<u>$-[\{(P_{Tx}-23)+33\}+4 \times \{(\Delta f -9.27 \text{ MHz})/3.96 \text{ MHz}\}] \text{ dB}$</u>
<u>3</u>	<u>13.23 to < 17.73</u>	<u>100</u>	<u>$-[\{(P_{Tx}-23)+37\}+2 \times \{(\Delta f -13.23 \text{ MHz})/4.5 \text{ MHz}\}] \text{ dB}$</u>
<u>4</u>	<u>17.73 to ≤ 22.5</u>	<u>100</u>	<u>$-[(P_{Tx}-23)+39] \text{ dB}$</u>

Notes:

1. Δf is defined as the frequency offset in MHz from the center frequency of the 8.75 MHz channel.
2. P_{Tx} is the measured power in dBm into the antenna.
3. Integration Bandwidth refers to the frequency range over which the emission power is integrated.

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23 **BS Band Class 1**

4 The Spectrum Emission Mask of Table 4 and Table 5 apply to US region.

5 **Table 4. Spectrum Emission Mask for 5 MHz Bandwidth Band Class 1-US**

Segment Number	Offset Δf from channel center (MHz)	Integration Bandwidth (kHz)	Allowed Emission Level (dBm/Integration Bandwidth) as measured at the antenna port
1	2.5 to < 3.5	50	-13
2	3.5 to \leq 12.5	1000	-13

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7 **Table 5. Spectrum Emission Mask for 10 MHz Bandwidth Band Class 1-US**

Segment Number	Offset Δf from channel center (MHz)	Integration Bandwidth (kHz)	Allowed Emission Level (dBm/Integration Bandwidth) as measured at the antenna port
1	5 to < 6	100	-13
2	6 to \leq 25	1000	-13

8

9 The Spectrum Emission Mask of Table 6, Table 7 and

<u>Segment Number</u>	<u>Offset Δf from channel center (MHz)</u>	<u>Measurement bandwidth (KHz)</u>	<u>Allowed emission as measured at the antenna port</u>
<u>1</u>	<u>4.77 to \leq 22.5</u>	<u>100</u>	<u>-53.9 dBc</u>

10 Table 8 apply to Korea region.11 Table 6. Spectrum Emission Mask for 8.75 MHz Bandwidth Band Class 1, Korea (a) $PTx >$
12 40 dBm

<u>Segment Number</u>	<u>Offset Δf from channel center (MHz)</u>	<u>Measurement bandwidth (KHz)</u>	<u>Allowed emission as measured at the antenna port</u>
<u>1</u>	<u>4.77 to \leq 22.5</u>	<u>100</u>	<u>-56.9 dBc</u>

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14 Table 7. Spectrum Emission Mask for 8.75 MHz Bandwidth Band Class 1, Korea (b) 29
15 dBm $< PTx <$ 40 dBm

<u>Segment Number</u>	<u>Offset Δf from channel center (MHz)</u>	<u>Measurement bandwidth (KHz)</u>	<u>Allowed emission as measured at the antenna port</u>
<u>1</u>	<u>4.77 to \leq 22.5</u>	<u>100</u>	<u>-53.9 dBc</u>

16 Table 8. Spectrum Emission Mask for 8.75 MHz Bandwidth Band Class 1, Korea (c) $PTx <$
17 29 dBm

<u>Segment Number</u>	<u>Offset Δf from channel center (MHz)</u>	<u>Measurement bandwidth (KHz)</u>	<u>Allowed emission (dBm/Integration Bandwidth) as measured at the antenna port</u>
<u>1</u>	<u>4.77 to \leq 22.5</u>	<u>100</u>	<u>-14.5</u>

