To: Roger Marks
   Chair, IEEE 802.16 Working Group
   r.b.marks@ieee.org

cc: Roger Marks
   Vice President - Technology Standards, WiMAX Forum
   roger.marks@wimaxforum.org

   Tim Hewitt
   Chair, Regulatory Working Group, WiMAX Forum
   tim.hewitt@wimaxforum.org

Reference: IEEE L802.16-09/0085r1

September 18, 2009

Subject: Additional WiMAX Forum TWG Contribution to development of Candidate IMT-Advanced RIT based on IEEE 802.16

Dear Dr. Marks,

As a followup to our previous statement ("WiMAX Forum TWG Contribution to development of Candidate IMT-Advanced RIT based on IEEE 802.16," of 31 August 2009), WiMAX Forum TWG would like to submit the attached proposed modification (Annex A) to the IMT-Advanced Technology Description Template in IEEE L802.16-09/0103r1 ("[Draft] Submission of a Candidate IMT-Advanced RIT based on IEEE 802.16 (Part 3)").

More specifically, this contribution proposes to add a Spectrum Emission Mask for 8.75 MHz channel bandwidth for 2.3 GHz band to Description Template table Item 4.2.3.2.23.5 of Section 6 in IEEE L802.16-09/0103r1.

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

Sincerely,

Wonil Roh, wonil.roh@samsung.com and
Vladimir Yanover vladimir.yanover@alvarion.com

Chairs, WiMAX Forum Technical Working Group (TWG)
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

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset from channel center (MHz)</th>
<th>Integration Bandwidth (kHz)</th>
<th>Allowed Emission Level (dBm/integration BW) at the antenna port.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.5 to &lt; 3.5</td>
<td>50</td>
<td>-13</td>
</tr>
<tr>
<td>2</td>
<td>3.5 to &lt; 7.5</td>
<td>100</td>
<td>-13</td>
</tr>
<tr>
<td>3</td>
<td>7.5 to &lt; 8</td>
<td>500</td>
<td>-16</td>
</tr>
<tr>
<td>4</td>
<td>8 to 10.4</td>
<td>1000</td>
<td>-25</td>
</tr>
<tr>
<td>5</td>
<td>10.4 to &lt; 12.5</td>
<td>1000</td>
<td>-25</td>
</tr>
</tbody>
</table>

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 PTx ≤ 23dBm

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset from channel center (MHz)</th>
<th>Integration Bandwidth (kHz)</th>
<th>Allowed Emission Level as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.77 to &lt; 9.27</td>
<td>100</td>
<td>-(</td>
</tr>
<tr>
<td>2</td>
<td>9.27 to &lt; 13.23</td>
<td>100</td>
<td>-(</td>
</tr>
<tr>
<td>3</td>
<td>13.23 to &lt; 17.73</td>
<td>100</td>
<td>-(</td>
</tr>
<tr>
<td>4</td>
<td>17.73 to ≤ 22.5</td>
<td>100</td>
<td>-(</td>
</tr>
</tbody>
</table>

Table 3. Spectrum Emission Mask for MS with PTx > 23dBm

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset from channel center (MHz)</th>
<th>Integration Bandwidth (kHz)</th>
<th>Allowed Emission Level as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.77 to &lt; 9.27</td>
<td>100</td>
<td>-(</td>
</tr>
<tr>
<td>2</td>
<td>9.27 to &lt; 13.23</td>
<td>100</td>
<td>-(</td>
</tr>
<tr>
<td>3</td>
<td>13.23 to &lt; 17.73</td>
<td>100</td>
<td>-(</td>
</tr>
<tr>
<td>4</td>
<td>17.73 to ≤ 22.5</td>
<td>100</td>
<td>-(</td>
</tr>
</tbody>
</table>

Notes:

1. Δf is defined as the frequency offset in MHz from the center frequency of the 8.75 MHz channel.
2. PTx is the measured power in dBm into the antenna.
3. Integration Bandwidth refers to the frequency range over which the emission power is integrated.
BS Band Class 1
The Spectrum Emission Mask of Table 4 and Table 5 apply to US region.

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

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset Δf from channel center (MHz)</th>
<th>Integration Bandwidth (kHz)</th>
<th>Allowed Emission Level (dBm/Integration Bandwidth) as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.5 to &lt; 3.5</td>
<td>50</td>
<td>-13</td>
</tr>
<tr>
<td>2</td>
<td>3.5 to ≤ 12.5</td>
<td>1000</td>
<td>-13</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset Δf from channel center (MHz)</th>
<th>Integration Bandwidth (kHz)</th>
<th>Allowed Emission Level (dBm/Integration Bandwidth) as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 to &lt; 6</td>
<td>100</td>
<td>-13</td>
</tr>
<tr>
<td>2</td>
<td>6 to ≤ 25</td>
<td>1000</td>
<td>-13</td>
</tr>
</tbody>
</table>

The Spectrum Emission Mask of Table 6, Table 7, and Table 8 apply to Korea region.

Table 6. Spectrum Emission Mask for 8.75 MHz Bandwidth Band Class 1, Korea (a) PTx ≥ 40 dBm

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset Δf from channel center (MHz)</th>
<th>Measurement bandwidth (KHz)</th>
<th>Allowed emission as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.77 to ≤ 22.5</td>
<td>100</td>
<td>-56.9 dBC</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset Δf from channel center (MHz)</th>
<th>Measurement bandwidth (KHz)</th>
<th>Allowed emission as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.77 to ≤ 22.5</td>
<td>100</td>
<td>-53.9 dBC</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Offset Δf from channel center (MHz)</th>
<th>Measurement bandwidth (KHz)</th>
<th>Allowed emission (dBm/Integration Bandwidth) as measured at the antenna port</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.77 to ≤ 22.5</td>
<td>100</td>
<td>-14.5</td>
</tr>
</tbody>
</table>