

1) Please explain how the voltages in Table 5.3 were derived for both GSM and UMTS.

Both GSM and UMTS operate under the same link handler in the CMU200 and therefore represent the voltages outlined in Table 5.3.

2) Please readdress the FCC 3 G procedures for HAC. Please include information of the devices capabilities and modes of operation. Also, please add additional justification for mode subset only testing.

This device operates in voice mode for AMR mode only. HSDPA mode is data receive only. SRB rate variations do not affect ABM2 results. Codec rates from 4.75kbps to 12.2 kbps in AMR were investigated, and the AMR 12.2 kbps mode exhibited the worst-case ABM2 (See Figure 7-1 of Test Report).

3) The graph showing that the UMTS vocoder passes 1 KHz CW accurately shows significant non linearities. Please address.

The WCDMA vocoder suppresses the noise in a non-linear fashion 20 dB below the -16 dBm0 level. However, a 1kHz CW tone at -16 dBm0 is within the linear region of operation near the -16 dBm0 level and therefore can be used for ABM1 measurements.

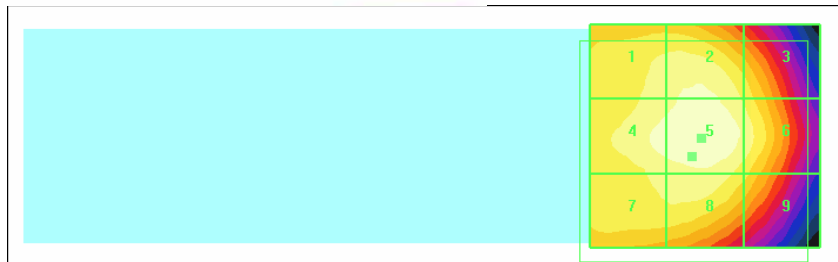
4) Please provide relevant contour overlays for the RF emission measurement. Also, it appears that the T-coil is offset from the speaker. The RF scan should be made centered on the T-coil. Please readdress the RF T-coil emission category. For this filing only if the RF contours are well behaved use of existing data may be used to satisfy the requirement. Use worst case data for each band.

Please see below data with RF scan data centered on the T-coil for the worst-case configurations. The RT category is M3.



Peak E-field in V/m

Grid 1	Grid 2	Grid 3
<b>202.5</b>	<b>213.6</b>	<b>201.8</b>
Grid 4	Grid 5	Grid 6
<b>214.0</b>	<b>221.9</b>	<b>203.6</b>
Grid 7	Grid 8	Grid 9
<b>191.4</b>	<b>197.2</b>	<b>177.4</b>



GSM Cellular E-field – Max 221.9 V/m (M3)

Peak H-field in A/m

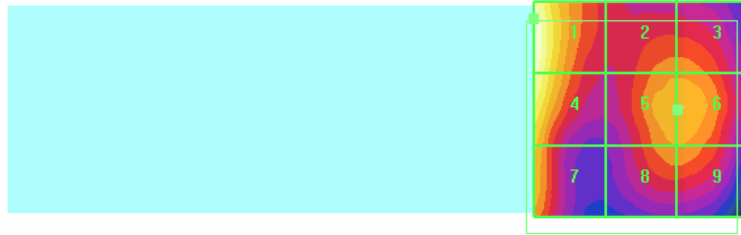
Grid 1	Grid 2	Grid 3
<b>0.242</b>	<b>0.169</b>	<b>0.090</b>
Grid 4	Grid 5	Grid 6
<b>0.270</b>	<b>0.197</b>	<b>0.119</b>
Grid 7	Grid 8	Grid 9
<b>0.276</b>	<b>0.199</b>	<b>0.125</b>



GSM Cellular H-field – Max 0.276 A/m (M4)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
<b>77.7</b>	<b>58.9</b>	<b>59.7</b>
Grid 4	Grid 5	Grid 6
<b>73.3</b>	<b>62.2</b>	<b>62.2</b>
Grid 7	Grid 8	Grid 9
<b>61.9</b>	<b>55.1</b>	<b>55.6</b>



GSM PCS E-field – Max 77.7 V/m (M3)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
<b>0.202</b>	<b>0.181</b>	<b>0.127</b>
Grid 4	Grid 5	Grid 6
<b>0.179</b>	<b>0.167</b>	<b>0.121</b>
Grid 7	Grid 8	Grid 9
<b>0.141</b>	<b>0.127</b>	<b>0.855</b>



GSM PCS H-field – Max 0.202 A/m (M4)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
<b>38.37</b>	<b>40.69</b>	<b>38.06</b>
Grid 4	Grid 5	Grid 6
<b>41.35</b>	<b>42.8</b>	<b>40.09</b>
Grid 7	Grid 8	Grid 9
<b>40.36</b>	<b>38.64</b>	<b>34.47</b>



WCDMA Cellular E-field – Max 42.8 V/m (M4)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
<b>0.058</b>	<b>0.048</b>	<b>0.038</b>
Grid 4	Grid 5	Grid 6
<b>0.054</b>	<b>0.046</b>	<b>0.037</b>
Grid 7	Grid 8	Grid 9
<b>0.050</b>	<b>0.040</b>	<b>0.032</b>



WCDMA Cellular H-field – Max 0.058 A/m (M4)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
<b>35.0</b>	<b>28.9</b>	<b>29.6</b>
Grid 4	Grid 5	Grid 6
<b>33.1</b>	<b>30.6</b>	<b>31.3</b>
Grid 7	Grid 8	Grid 9
<b>28.0</b>	<b>28.2</b>	<b>28.4</b>



WCDMA PCS E-field – Max 35.0 V/m (M4)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
<b>0.108</b>	<b>0.101</b>	<b>0.078</b>
Grid 4	Grid 5	Grid 6
<b>0.097</b>	<b>0.095</b>	<b>0.077</b>
Grid 7	Grid 8	Grid 9
<b>0.078</b>	<b>0.076</b>	<b>0.057</b>



WCDMA PCS H-field – Max 0.108 A/m (M4)