## Mike Kuo

**From:** Claire Hoque
**Sent:** February26日2004年Thursday 10:51 AM
**To:** Mike Kuo
**Cc:** Thu Chan; Kathy Yao; Frank Ibrahim
**Subject:** RE: Cellphone-Mate Inc. , FCC ID:RSNCM1000, AN04T3638

Hi Mike,

Here are the answers.
Question #1: Please provide MPE information to address RF exposure compliance.
<Claire> pls see the attached MPE.

MPE Calculations for Cellphone...

Question #2: In the antenna specification attachment, it provides 2 different antenna gain ( 3 or 5 dBi ). Please provide antenna specification for each of antenna which apply to the frequency range of this amplifier and the cable lost with 2000 mm in cable length.
<Cellphone-Mate> two spec. are attached.
Cable loss:
The type of cable we used is RG-174, with loss of 31.7dB/100 feet, for 2000 mm, which is 6.56 feet, total cable loss will be: 2.08 dB.

5dBi antenna spec.pdf

3dBi antenna spec.pdf

Question #3: In the EMC test report, the antenna gain are listed as 5 dBi and 3.5 dBi which do not agree with antenna specification. Please explain.
<Cellphone-Mate>
3.5 dBi is a mistake,an over statement, please always use 3 dBi from now on for all FCC documents, and please make all the corresponding changes if you can.
Thu has revised the test report.

03U2456 FCC 24 Report(revised)...

Question #4: In the user manual, there is no instruction provided about the separation distance shall be maintained. Please provide revised user manual.
<Cellphone-Mate>revised manual is attached.
Based on our calculations, assuming a 2 watt power input to the antenna; a 5 dBi max antenna gain; and a power density limit of 12.34 w/m^2 at 1851 MHz, the distance limit to meet FCC MPE is 21.5 cm. To be conservative, I will put 25 cm in the user manual. .

CM1000 User Manual-revised.pdf..

Question #5: By comparing the RF conducted output power and the EIRP measured data, the EIRP output power for 5 dBi antenna gain are about 4 dBi lower than 3dBi EIRP. Please explain why the higher antenna gain with lower EIRP readings.
<Frank>
the 5 dBi antenna had lower power even though it has higher gain than the other antenna is the fact that there is a permanent cable connected to it that has a loss.

Question #6: Please provide modification report signed the applicant to acknowledge the modification made during final

compliance tests will be incorporated in each unit sold in the U.S..
<Cellphone-Mate> signed report is attached.

signed modification report.pdf...

Question #7: Is this device capable of amplifying CDMA modulation and GSM modulation in one box or different modulation will require to have different RF board ?
<Cellphone-Mate>
Yes, both in one box, that's why your lab did separate test for CDMA and GSM.

Thanks,

Claire