



American Telecommunications Certification Body Inc.  
6731 Whittier Ave, McLean, VA 22101

December 18, 2001

RE: Sony Ericsson Mobile Communications  
FCC ID: AXATR-421-A2

I have a few comments on this Application.

1. Please provide an FRN for this Applicant.

[0005-0294-00](#)

2. Please provide an owners manual for this Application. Additional questions may arise as a result after review of this document.

[Please refer to uploaded Manual.](#)

3. Error uncertainty analysis was not addressed in the SAR report.

[The uncertainty is provided in the test report \(section 3.1\) along with a reference to the "SAR Measurement Specification of Wireless Handsets" document, in which the full uncertainty budget is provided \(section 7\).](#)

4. A boundary interpolation plot is required.

[This is provided in the addendum](#)

5. Other than the 1400mAh and 750mAh batteries, were there any other accessories which may affect SAR values? It is unusual for Cellular phones to not have an earpiece or headphone.

[The earpiece was tested with the device \(see section 6.2 and photos in Appendix 4\).](#)

6. Please provide an "affirmative Statement of Compliance" for RF Exposure [47CFR 2.909]

[This is given on page 1 of the test report, under the title "Statement of Compliance"](#)

7. Please provide ESN attestation.

[Please see cover letter for ESN Attestation](#)

8. Please provide Cellular System compatibility attestation [47CFR 22.933]

[Please see cover letter for Cellular System Compatibility.](#)

9. Please identify distance of phone to phantom (excluding belt clip) for body worn operations.

[For body worn operations, the device is placed flat against a flat phantom with a 2mm thick shell. The thickness of the carry accessory is 23mm. Therefore, at the clip the distance from the device to the liquid is 25mm. This is illustrated in the addendum.](#)

10. Please identify construction of belt clip(s) used with this device.

[The carry accessory consists of a leather/plastic case and a belt clip which attaches to it. The clip is made of metal and plastic.](#)

11. Please provide information on probe response to TDMA signals.

This information is provided in the addendum.

12. Was before and after RF conducted RF Power Output measurements performed after each run?

Conducted power was measured prior to the start of SAR testing. For each test, reference SAR measurements were made before and after. The drift (difference between the two measurements) was always verified to be within 5%. The drift values can be seen on the plots. The FCC has clarified that this is an acceptable practice (see attached document "Round2-Supplement-C-Responses3.doc").

13. Does the phantom conform to current recommendations of SCC-34/SC-2 and as described in IEEE P1528.

The phantom is designed to meet these specifications. This is stated in section 5.2 of the "SAR Measurement Specification of Wireless Handsets." Additional information is provided in the addendum.

14. The actual composition of ingredients used for the tissue material is required.

This is given in Annex A of the "SAR Measurement Specification of Wireless Handsets."

15. A description of the dielectric holder and positioning procedures used to evaluate the highest exposure expected is required.

The holder and positioning procedures are stated in "SAR Measurement Specification of Wireless Handsets" (sections 5.5 and 6.1).

16. A description of both the course and fine scan procedures and interpolation procedures are required.

See "SAR Measurement Specification of Wireless Handsets" (Annex C)

17. This device uses a unique antenna. It is reasonable to ask if this device was rotated and tested in three orthogonal planes.

"through three orthogonal planes" was added to section 4.1 test procedure and similar test procedure added to section 5.1.

18. Transmitter radiated spurious data was only performed on the low channel. There is no problem with testing one frequency, but it must be a middle channel not a band edge. Please supply additional test data ad mid-band. Since TDMA produced the higher ERP, it should be shown in TDMA in addition to AMPS.

The test was performed at the operating frequency of maximum power output. Radiated test data for TDMA mode were provided on page 10 section 5.2. Additionally, the middle and high channels harmonic frequencies were investigated to determine the worst-case emission levels.

19. It is not possible to read the annotation on the Tx Spurs in Rx Critical Band plots.

Enlarged plots are provided to view annotations

20. Ideally, TDMA signals should use the same 30KHz channels as AMPS. Please provide a TDMA Occupied BW with the AMPS mask on a 100KHz span. The annotation on the one supplied is unreadable.

A new plot was provided with a 100kHz SPAN and AMPS mask. This plot was the 99% occupied bandwidth only.

21. During temperature testing, was transmitter switched off during increments from -30 to +60? FYI: Only one mid-channel temperature test for AMPS and TDMA is required.

No, it was not, wording was changed in section 9.1

22. Modulation limiting graphs are difficult to read. Please do not depend on color – these are legal documents where black and white always has preference. Show only 300, 1000, and 2500Hz. The audio input scale is missing from the deviation limiting plots. The annotation is difficult to read

New plots were taken in black and white of 300, 1000, and 2500 Hz, added audio input scale for each tick mark. Enlarged to enable better viewing of annotation.

23. Rated system deviation for voice is misidentified. Correct deviation is 12KHz. This would affect results of modulation limiting. Please note that 12KHz is what you specified in your necessary bandwidth calculations.[22.915(b)]

Re-measured rated system deviation for voice, and corrected deviation to 12 kHz

24. There is nothing in the report which identifies the lowest power setting of this equipment. Please provide conducted RF Pout data at lowest power setting.

EUT has integral antenna with no external port available for Pout measurement.



William H. Graff  
President and Examining Engineer

[mailto: whgraff@AmericanTCB.com](mailto:whgraff@AmericanTCB.com)

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.