



**Sony Ericsson**

**Sony Ericsson Mobile Communications (USA) Inc.**

7001 Development Drive  
RTP, North Carolina 27709

July 18, 2002

American Telecommunications Certification Body Inc.

6731 Whittier Ave  
McLean, VA 22101

Attention: Equipment Authorization Branch  
Subject: FCC Comment Responses for FCC ID: AXATR-422-A2  
Model: T60ds

Dear Mr. Graff:

The attached pages (3) contain responses to FCC comments concerning FCC ID: AXATR-422-A2, Sony Ericsson model T60ds.

If you have any questions and/or comments, please don't hesitate to contact me.

Sincerely,

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1) Statement clarifying frequency range. Tuneup procedure page 3 of 11 references the 1900 MHZ PCS band. Clarify if the device can transmit in the 1900 MHZ band.

**This product will not transmit in the 1900 MHz band. Section 1.4 of alignment procedure indicates RF power alignment is "not applicable for this product".**

2) Full users manual.

**Latest user's manual is attached.**

3) Block diagram.

**Block diagram is attached.**

4) Statement of how the crest factor correction factor measured on page 10 was used to determine power. Also, please clarify if the reported conducted power for TDMA mode is "peak", "burst average" or "average".

**The crest factor was not used to determine the conducted power since the power meter measured in a "burst average" mode, which were the reported values.**

5) Statement describing how the burst nature of the TDMA mode was addressed during conducted and radiated spurious testing.

**During both conducted and radiated spurious testing the data was taken in a max hold condition using the spectrum analyzer which was considered "worst case", then substitution method applied to these levels.**

6) Clarification if all frequencies were scanned during spurious testing or just specific harmonic frequencies. The entire frequency range should be scanned. Provide additional data as necessary.

**Yes all frequencies were scanned from 9kHz to the 10th harmonic of each fundamental for the low, mid, and upper channel, but only harmonic frequencies were provided in spurious emission categories, other levels noted were less than 20dB below the limits for the transmitter section, other digital and receiver frequencies found were reported in Appendix N of the report.**



## SAR related questions/comments

1) SAR plots from all test and SAR results from testing in the TDMA mode. It is not clear from conducted and radiated measurements that maximum power for the TDMA mode is "significantly lower" than the AMPS mode as stated on page 5 of 25.

**According to Supplement C of OET 65, when different modes share the same frequency band only those with output power within 1dB from the higher output power mode need to be tested. According to this statement, and looking at the device description table in the T60ds report (document number EUS/CV/R-01:1078/REP), TDMA signals have 1/3 duty cycle resulting in an average output power 1/3 lower (4.77 dB lower) than the output power for the AMPS mode. This 4.77dB reduction of output power would result in a much lower SAR, as it has been described in the report.**

2) Statement justifying use of the probe calibration at a different frequency and with different tissue parameters than used for testing. Please include an analysis of the expected variation on the SAR value. Alternatively please provide data using a probe calibrated at 835 MHz and with the tested tissue parameters. Further, use of incorrect probe conversion factors is discouraged for TCB approval purposes and is not considered consistent with Supplement C procedures.

**During the first TCB training in August of 2001, the FCC made the recommendation to SAR labs to use a 6-month period to recalibrate their probes to 835 MHz. In our laboratory, the equipment is calibrated in two calibration cycles during the year. Probe 1539, which is the probe used in the measurements, was due for the December 2001 calibration cycle, therefore, and provided that the date of the report was still within the 6-month transition period, the 900 MHz parameters were used.**

In order to demonstrate that the values in the report are in line with the values that would have been obtained using the 835 MHz coefficients, a postprocessing has been done on the values of the report using probe 1539 recalibrated. The following tables summarize the results.

Mode / Battery	f (MHz)	Left hand (cheek)		Right hand (cheek)	
		SAR, 1g /10g (W/kg)		SAR, 1g /10g (W/kg)	
		measured	Calculated with new 835 MHz coefficient	measured	Calculated with new 835 MHz coefficient
800 AMPS / BKB-193-1052	824	1.21	1.06	0.99	0.90
	837	1.08	0.944	0.88	0.80
	849	0.96	0.83	0.82	0.74
		Left hand (TILT)		Right hand (TILT)	
800 AMPS / BKB-193-1052	824	0.95	0.835	0.79	0.70
	837	0.80	0.701	0.61	0.54
	849	0.70	0.615	0.62	0.55

**Table 1: SAR measurement results for the T60ds measured against the head.**



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Mode	f (MHz)	SAR, 1g /10g (W/kg)	
		Measured	Calculated to max. power
800 AMPS Back of phone facing the body	824	0.97	0.85
	837	0.82	0.72
	849	0.71	0.62
800 AMPS Front of phone facing the body	824	0.63	0.56
	837	0.56	0.49
	849	0.42	0.37

**Table 2: SAR measurement results for the T60ds telephone. Measured against the body using carry accessory SXX 109 4705 with hands free accessory RLF 501 25/03.**

3) A full list of manufacturer accessories available for use with this device.

**The following optional accessories are available for this product:**

- **Desk Stand**
- **Body Worn Carry Case**
- **Travel Charger**
- **Cigarette Lighter Adapter**
- **Standard Headset**
- **Bluetooth Headset**
- **Bluetooth Phone Adapter**
- **RS-232 Cable**
- **Chatboard**
- **Advanced Car Handsfree**
- **Portable Handsfree With Answer Button**
- **Portable Handsfree With FM Radio**
- **Portable Handsfree With MP3 Player**
- **Snap-On Covers**
- **Carry-Case**

4) Revised RF safety statement. The current statement could be easily misunderstood that all Ericsson accessories meet FCC RF safety requirement. The statement should refer to the specific accessories that were tested.

**To which RF safety statement is the request for revision applicable, User Manual and/or SAR Insert? Please keep in mind, the RF safety statement text of the SAR Insert is derived from CTIA recommended verbiage. Also, could the Examiner suggest what would be considered appropriate text? For example, if products are tested with carry-case and portable handsfree accessories.**