

American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

July 23, 2003

RE: UTStarcom, Inc.

FCC ID: O6YUTS-700U

After a review of the submitted information, I have a few comments on the above referenced Application.

1) Digital device data was submitted for radiated emissions. Please confirm that AC power line conducted emissions has also been performed.

Response: The AC power line conducted emissions has also been performed.

EMC Report

2) The test photographs provided appear to be for 2 different devices. Please review and explain.

Response: The client provided two samples of the same unit for testing; each unit had a different colored cover.

3) It appears that information on this system from UTStarcom's web site states that radios for this system can come in 10 mW, 200 mW, and 500 mW average powers. Please confirm that this device was tested at its maximum setting.

Response: The unit was tested at its maximum setting.

4) The EIRP shown in Table 4.5 appears to be incorrect for channel 25. Please verify, as it appears this should be 18.6 dBm EIRP.

Response: 20.6 dBm is the correct EIRP; an error occurred for the channel 25 EIRP. Please see the revised test report uploaded with this response.

5) Please explain the EIRP on the 731 form of 0.112 Watt EIRP. It appears this should be 0.098 mW.

Response: Actually the EIRP should be 0.114 Watt EIRP, since the highest EIRP value is 20.6 dBm. Please see the revised 731 Form uploaded with this response.

6) It is not clear if the air interface is strictly TDMA. While the emission designator 271KDXW appears to be for the TDMA please explain if the device is capable of transmitting in any other mode.

Response: The air interface is PHS, which is strictly a TDMA-TDD interface conforming to Japan Standard RCR-28.

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7) The device appears to function from 1893.65 - 1909.85 MHz which matches previous approvals for this applicant, while the web site for UTStarcom appears to state 1895 to 1918.1 MHz. Please confirm and explain the lowest and highest channels used by this device.

Response: The device does indeed operate from 1893.65 - 1909.85 MHz. The center frequency of the lowest channel (Channel 251) is 1893.65 MHz, and the center frequency of the highest channel (Channel 50) is 1909.85. UTStarcom is in the process of updating their web site.

8) The margins shown in Table 6-3 do not appear to be properly calculated for all entries except the first one. Please verify and/or correct as necessary.

Response: Table 6-3 has been corrected. Please see the revised test report uploaded with this response.

SAR Report

9) The verification frequency(s) should be within ± 100 MHz of device center frequency(s), however the 1800 MHz dipole falls just outside this (1901.75 MHz). Please explain.

Response: At the time of testing this device, a 1900 MHz dipole was not available to CellTech. Currently a new 1900 MHz dipole is being manufactured and calibrated for future testing at this frequency. CellTech determined that due to low SAR results and low maximum power level of 10 mW, their 1800 MHz dipole being outside the ± 100 MHz range of the device's center frequency by 1% would result in no appreciable change in the system validation when performed with a 1900 MHz dipole.

10) Typical TDMA phones use a crest factor of 3. However the crest factor given in the report is 14% (7.1). Please provide measurements and/or appropriate information to support the use of 14%. Additionally, is this worse case duty cycle?

Response: The crest factor of 14% represents worst case and is based on measured data. We measured an on time of 700 us and a period of 5 ms. This concurs with the manufacturer's theoretical duty cycle of 12.5%. In test mode, the phone transmits at an 8:1 duty cycle, which matches its operational performance. For TDMA access, each 300 khz carrier has 8 time slots - 4 in each direction. The phone talks on one, listens on one, and does nothing with the rest.

11) The manufacturer's dipole information appears out of calibration (almost 2 years old). Please explain.

Response: At the time of purchase, the dipole manufacturer's recommended calibration interval was 24 months, based on the justification that significant deviations after one year were not expected to occur. The manufacturer's dipole calibration interval is now 12 months per IEEE recommendations.

12) The users manual mentions body worn operation (page 10), but information regarding body testing has not been supplied. Additionally, the users manual should clearly label the

Response: The 700U does not have an external headphone jack, and therefore does not have a body-worn configuration. The manual has been revised to remove the reference to the body-worn operation.

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13) The users manual (page 14) mentions a NiMH battery, while only a Lithium Ion appears to have been tested as stated in the SAR report (various pages). All batteries must be tested. Please explain.

Response: The EUT was tested with an NiMH battery. The SAR report has been corrected and uploaded with this response.

14) It appears that the device was tested for power output via EIRP method. Did this device not have the capability to be tested via conducted power? Note that conducted power was listed in the EMC report.

Response: The EUT does not have a port available for conducted testing. Nonetheless, Rhein Tech did modify a unit to obtain conducted power measurements. The EUT that Celltech tested for SAR was an unmodified version, and testing was based on EIRP measurements. We feel that SAR testing would have been influenced had a modified EUT been used for SAR testing.

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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.