



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

November 3, 2004

RE: OQO

FCC ID: SHD-A4YWFS

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

- 1) The revised report still mentions a bandedge frequency of 2439 MHz (See page 30 and 34). Please correct.
- 2) The revised report still missing units for field strength on page 56.
- 3) Please provide units for the output power for output power shown in tables on page 56 of the revised report.
- 4) Although there was a concern with the test software for producing all 79 channels, please explain if the end use device will be using 79 channels. Note that if it is considered Bluetooth compliant, it is expected to use all 79 channels.
- 5) If the device is not considered Bluetooth compliant, please provide detailed theory of operation information regarding pseudo-random hop lists, information regarding RX tracking the TX and having equal input bandwidths to the TX, and information on compliance to 15.247(g) & (h).
- 6) FYI...Model number or similar identification information should be placed on the same page in the users manual for the DoC compliance statement requirements.

SAR Questions:

- 1) The SAR report cites power as conducted, but matches your EIRP power. Please explain.
- 2) The FCC normally expects the SAR facility to measure power to ensure device has proper output power for test and that sample has not been damaged. What precautions were taken to ensure the device was operating properly during the test and that the sample was operating as previously measured. For instance, was power measured before and after SAR by Elliott? Are there any concerns with the test software as well. Please explain.
- 3) This device is capable of transmit from either antenna. How was this factored into the testing. Note section 8.2 suggests both may have been evaluated, but it is not certain.
- 4) From page 22 of the SAR report, it appears power was only measured from the antenna producing lower power. It would be expected that the highest be measured.
- 5) For devices containing low power secondary transmitters < 5 mW (Bluetooth in this device), the FCC asks that the worse case positioning of the primary TX be tested with the secondary TX turned on and then off. The purpose of this testing is to show isolation of the 2 transmitters and the fact that the primary TX results are not affected. It appears this may not have been done. Please review and correct as necessary.
- 6) Please adjust the report to define if this device is a production unit or identical prototype.
- 7) Are there any battery options to consider for this device that must be tested?
- 8) On the test photographs, it is uncertain the positioning of the antennas. This should be denoted when possible.
- 9) The SAR report does not appear to procedures to establish the test signals described (put phone on a call, e.g., base-station simulator vs internal test codes)? This may include a test equipment list or test codes.
- 10) Plots for the Validation do not appear to be provided.
- 11) Was SAR evaluated with the keyboard open and shut? This mode should have been investigated.
- 12) Are there any body worn accessories to be investigated for this device.

- 13) Information regarding Crest Factors does not appear on SAR plots. This should be provided on the plots.
- 14) Z-axis scan information does not appear to have been provided for worse case SAR measurements.
- 15) The dielectric parameters measured should be compared to and show to be < 5% from the expected values.
- 16) The calibration information given for the verification dipole does not appear to match the date of the calibration information provided and that the device may be out of calibration.
- 17) Users manual should mention to the user that the device has been evaluated for RF exposure conditions to the FCC requirements. Also, it appears that the statements of 15.21 may not be included in the manual. Please review.



Timothy R. Johnson
Examining Engineer

[mailto: tjohnson@AmericanTCB.com](mailto:tjohnson@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.