



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

September 24, 2003

RE: AboCom System, Inc.

FCC ID: MQ4WBD512

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

- 1) The maximum EIRP of the device is about $153.1 \text{ mW} - 1.88 \text{ dBi} = 99.3 \text{ mW}$. The FCC is expected to require any 2.4835 GHz band USB dongle to require SAR evaluation if the device exceeds 24.5 mW (conducted OR EIRP power). Simply providing the user with a cable and instructions is not considered significant enough to quantify this device as mobile. Because this device contains a standard USB connector and may be directly connected to a laptop by the user, the options available include one of the following:
 - a) Perform the necessary SAR testing, or
 - b) reduce the power such that both the conducted and EIRP power are less than 24.5 mW, or
 - c) Change the connector from a standard USB connector (Type A) to a Type B, or some other nonstandard connector and provide the required extension cable. Because the connector is non-standard they will be forced to use the cable and the device may be considered as mobile in this case, or
 - d) provide the product with a permanent built in cord so that the user is required to use the cord and ensure the 20 cm spacing requirements. This configuration may be considered mobile.
 - e)

Note: The FCC's perspective is if users can operate a device in such configurations or conditions because of the way a device is designed or manufactured, these configurations should also be evaluated to ensure compliance. This is why the FCC considers these devices to be able to be used $< 2.5 \text{ cm}$.

- 2) The RF exposure information given in the manual will change due to item 1 above.
- 3) The 6 dB bandwidth is incorrectly measured. The markers should be placed on the outer most 6 dB points. This will typically yield a results close to 10 MHz. Please provide corrected measurements.
- 4) Please explain the difference between the Reading column in dBm and the output power in dBm column shown in the power measurements portion of the report.
- 5) Page 19 of 39 of the test report contains an additional column "Average Factor" with large values. Please explain. Additionally much of the data in this table does not make sense.
- 6) Given an output power of 153 mw and antenna gain of -1.88 dBi, the power measured in the bandedge plots appears about 10-15 dB lower than expected. Note that this factor already includes an expected 10 dB difference due to the wideband nature of the signal. Far Field calculations yield about 113 dBuV/m - 10 dB difference = approximately 103 dBuV/m. Please explain.

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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.