



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

October 25, 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) This device comes in 4 models with different memory sizes and also one model without the Memory Disk. Note that due to the close proximity of all components and the differences are metallic in nature, each model should have been investigated by testing in order to determine the worse case. Note that the worse case can not simply be assumed. If the different size memories use are actually the exact same layout, only a different component, you may be able to justify these to be the same in nature. However the version without the memory disk should have been pretested and compared to the sample tested in order to determine worse case. Please comment.
- 2) Please comment on the Probe Angle between the probe axis and surface normal line. Was this maintained at < 30 degrees. Note that if the probe angle is > 30 degrees and the closest point of the probe tip housing to the phantom surface is closer than a probe diameter, the boundary effect may become large and polarization dependent. This additional uncertainty needs to be analyzed and taken into account. Was this done?
- 3) A zoom scan plot should be provided for the worse case results.
- 4) Please comment of if the scan procedures given on page 15 for the system validation also apply to the general scan procedures for the test scans.
- 5) The test report does not appear to provide a description of the validation dipole used, other than including the calibration certificate. Please add this information to the report.
- 6) The test report should contain the composition, ingredients, and amounts for tissue liquid listed.
- 7) The 2450 MHz dipole calibration is listed in the report as N/A. The FCC usually desires this to be calibrated since it is the reference for you verification. They also ask that the most recent manufacturer/calibration reference dipole data is included. Please provide and/or comment.
- 8) The FCC desires that return loss data for the dipole used for verification be provided for the report. This is typically included as part of the manufacturer calibration. Please provide.
- 9) Please comment on if boundary effect compensation was used. Note that when Probe boundary effect compensation is not used the probe tip should be positioned at least half a probe tip diameter from the phantom surface during area and zoom scans. Please comment.
- 10) Please comment on if the first 2 measurements points in a direction perpendicular to the surface of the phantom during the zoom scan and closest to the phantom surface, were within 1 cm of the surface.

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11) Your previous response to the following question:

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.

Stated "This is because we add 10dB external attenuator". Note that if 10 dB attenuation was added, then the limit line would also need to be adjusted by 10 dB to compensate. However, given that the limit of 74 and 54 dBuV/m are shown at 74 and 54 dBuV/m, these plots were assumed to be corrected for factors such as preamp, cables, antennas, and attenuators. If all factors have been considered, then the level appears lower than expected as given above. Please provide further explanation.



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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.