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August 30, 2004

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

RE: Comments of August 24, 2004
APPLICATION: SAE-000MTXB SkyBitz Incorporated

Dear Mr. Johnson:

Below are the comments that you have provided regarding the application for certification referenced above. Our responses to those comments are in ***bold italic***. Many responses refer you to additional exhibit(s) which has been uploaded to the application folder at the ATCB website.

Thank you for your attention. Please feel free to contact us for any additional information that you may require.

Regards,

Gregory M. Snyder
Chief EMC Engineer, Wireless/Telco Services Manager

Brian J. Dettling
Documentation Specialist

WLL Project: 8183

1) Internal photographs can not simply be held confidential. Further justification must be provided before confidentiality can be granted on this exhibit. Additionally, if only certain pages of this exhibit are to be held confidential, then the exhibit must be separated into 2 parts, one not held confidential, and one that is.

R. The letter has been expanded to provide clearer justification. Please see exhibit "000MTXB Cover Letter - RFC Rev 1.pdf".

2) For the RF exposure, the device does not require MPE testing and is therefore excluded from this "evaluation" per the FCC rules, not the RF exposure requirements or calculations. Therefore, it is still required that you provide MPE calculations. Please add this information to the current RF exposure exhibit.

R. The original MPE exhibit was submitted with incorrect data. A new MPE exhibit containing calculations using measured values has been prepared. Please see exhibit "000MTXB RF Exposure Info - New.pdf".

3) Users Manual section 4.0 and the test report page 3 of 26 mentions an EIRP of < 2 Watts, while 700 mW + 5.5 dBi given in the MPE evaluation is 2.5 Watts. Please explain (this may be affected in part by #7 below).

R. The original MPE exhibit is in error. Please discard this exhibit.

4) Please explain the derivation of the 700 mW, since this never appears to have been measured.

R. The actual output power was measured and is reported in the revised test report. Please see exhibit "000MTXB Test Report Rev 1.pdf".

5) Is direct antenna conducted measurements possible. If so, the FCC likes also to see the conducted output power measurements on this type of device. Also, other antenna conducted measurements should be provided for spurious if the capability exists.

R. The device incorporates an integral antenna making conducted measurements at an antenna terminal unachievable.

6) Section 5.0 discusses the installation as normally located > 20 cm, etc. Note that the users manual must specifically instruct how this must be installed and/or used to meet the RF exposure requirements. This type of device should state the following or similar:

"The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. This device must transmit with a source-based time-averaging duty factor not exceeding __%." (This part may or may not be applicable).

R. Please see the revised User Manual: exhibit "000MTXB User Manual Rev 1.pdf", page 4.

7) Correction factors are for power and are typically corrected based upon $10(\log)(RBW1/RBW2)$. Please correct data that is affected throughout the report (RF Exposure, power measured, etc.) that may be affected. Note this will likely affect item 3 above.

R. The test report has been revised using a correction bandwidth correction based on $10(\log)(RBW1/RBW2)$.

8) For this type of TX, section III, Items 6(c) and (d) must be filled out on the 731 and match information presented in the application. Please adjust 6(b) for any final EIRP in Watts, due to item 7) above.

R. Please see exhibit "000MTXB Application Form - 731 revised.pdf", which now includes items 6(c) and 6(d). The output power listed is the actual measured power.

9) For Occupied BW - The SA "Reference Level" should be equal to the total power from the transmitter as if you measured it with a power meter and not the maximum emission of the spectrum. Ideally, your bandwidth measurement is relative to the total (or unmodulated power when possible) unless stated in the rules. Additionally, when not specified in the regulations, the occupied bandwidth should be measured at

26 dB down for the FCC (See ANSI C63.4). Therefore your 26dBc points would be down from the reference level - not the peak of your emission.

R. The bandwidth plot has been corrected to show the 26dB bandwidth of the modulated signal. It was not possible to get an unmodulated signal on this device.

10) The mean power of spurious emissions shall be attenuated below the mean output power of the transmitter in accordance with 25.202(f). This means the reference level for Figure 2, 3 should be positioned as given in 9) above. Additionally, the measurements should be made using a 4 kHz RBW or larger based upon the requirements. Please comment or correct as necessary.

R. Since an unmodulated carrier could not be obtained, the attenuation of spurious emissions was based on the modulated carrier, resulting in a worst case condition. The spurious emissions were measured using a RBW close to the 4kHz specified. A correction was applied to the measurement to adjust for the actual measurement bandwidth used. Additionally, the spurious emissions were not detectable using a larger bandwidth setting.

11) Please explain where compliance to 25.216(i) may be found.

R. The unit already complies with the -80 dBW requirements of §25.216(d) in the transmit mode as shown in Figures 4 through 7 of the test report.

12) Please explain the DC voltages and currents applied into the several elements of the final radio frequency amplifying device for normal operation over the power range

R. The Block Diagram has been revised to include voltage and current information. Please see exhibit "000MTVB Block Diagram Rev 1.pdf".