Handspring, Inc.
189 Bernardo Ave.
Mountain View, CA 94043

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

From: David Waitt
Sr. Regulatory Engineer, Handspring, Inc

July 15, 2003

RE: FCC ID: O8FBW

Mr. Johnson,

The additional information you requested regarding our recent FCC certification application (FCC ID: O8FBW) is below. I hope this addresses your concerns. If you would like any further information, please do not hesitate to contact me at dwaitt@handspring.com.

Your questions are included for your reference below, along with the reply

Best Regards

David Waitt

ATCB 1) Please provide a parts list for this device. If necessary, please update the confidentiality letter.
Handspring) The parts list was inadvertently omitted form the application when it was uploaded. The parts list has been uploaded to the site. A revised confidentiality letter has also been uploaded.

ATCB 2) Please provide internal photograph of the following:
a) Area underneath the shield located next to the camera and underneath the Radio Module.
Handspring) The area you are referring to here is not shielding any components. It is the back if the metal SD card housing that is soldered to the main PC board.
b) Area underneath the insulation material located on the back of the main board.
Handspring) An additional photo has been uploaded to the ATCB site

ATCB 3) Information in the artwork for the label appears to show the FCC logo. Please explain if this is being utilized on
the device and for what approval it pertains.
Handspring) This lower left corner of the drawing is simply being used as a “Logo Storage Bin” for various foreign regulatory marks in case future foreign certifications require a regulatory mark. The marks do not appear on the device being certified. The only marks appearing on the device currently being certified are those shown on the back of the unit in the drawing.

ATCB 4) Please provide the DC voltages/currents applied into the transmitter module for normal operation over the power range.
Handspring) The RF module operates on a nominal voltage of 3.6 Volts. The maximum operating voltage range of the RF module is 3.5VDC to 4.6VDC

ATCB 5) The users manual appears to be missing information required by 15.21. Although portions of this information appears (relative to the antenna), it does not appear to be complete.
Handspring) The manuals will be edited to include the statement below.

Antenna Care / Unauthorized Modifications
Use only the supplied integral antenna. Unauthorized antenna modifications or attachments could damage the unit and may violate FCC regulations. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ATCB 6) Due to the information given in the users manual (page 20), this device may also be considered a PC peripheral. Please comment on if appropriate testing has been performed (under a DoC) and note that additional labeling and manual statements may be necessary. Please call to discuss.
EMC Report - 800 MHz CDMA
Handspring) Handspring will certify the unintentional radiator portion of the cellphone, thus only requiring the FCC ID on the device. Pertinent DoC documentation will be uploaded to the ATCB site

800MHz
ATCB 7) I believe that CDMA 800 MHz allows for channels in the 824.7 - 848.31 MHz, However the test report page 3 of 17 states 825.25 - 847.75 MHz. Note that the FCC requires testing at the lowest/highest available channels in each block. Please explain.
Handspring) 824.7 – 848.31 MHz is correct. The report has been updated to reflect the correct frequency range of operation.

ATCB 8) The test report page 4 of 17 mentions the EUT is an amplifier regarding Frequency Stabilization which does not apply to this device. Please correct.
Handspring) The reference to the EUT being an amplifier has been removed.

ATCB 9) In the Substitution Methods (page 6 of 31 of 800 MHz CDMA) Note 1 explains that the EIRP = Pin + reduced by db Value + Gain. However it appears that the Pin value may already be corrected by the "reduced by dB value" instead of factored in the calculation as the note implies. Please confirm that the data is correct and provide further clarification regarding the calculations. Please correct the table if necessary.
Handspring) The statement has been modified to reflect the values stated on the substitution table. Also a new table summarizing the data has been included on the report. The revised report has been uploaded to the ATCB site.

ATCB 10) Please correct or add the ERP value for power output to the results in page 7 of 17. Note that the FCC uses ERP for Part 22.
Handspring) Power has been included as ERP in the report page 7 of 17 of the revised report

ATCB 11) Compliance with the low end of the B* block can not be determined from the plot provided on page 17 of 31 (800 MHz CDMA) since the block edge starts at 846.5. Please provide a new plot for this bandedge.
Handspring) A new plot showing the correct bandedge at 846.5 MHz has been provided. New revised report has been uploaded.

ATCB 12) The frequency stability results for temperature look unusually small (page 46 & 47). Please check results to see if they are actually listed properly and the correct units is given in the table (Hz).
Handspring) The units of the number reported initially should have been MHz. The revised the report shows the drift in Hz.

ATCB 13) FYI. As of February 2003, the FCC implements revisions to Part 22. For future reports, please follow the requirements of these revisions, as it will make reviewing the reports much easier since many section references are different than previously. Attached is a copy of the changes to Part 22. EMC Report - 1900 MHz CDMA
Handspring) Noted, and Thank you

1900MHz
ATCB 14) The test report page 4 of 17 mentions the EUT is an amplifier regarding Frequency Stabilization which does not apply to this device. Please correct.
Handspring) The statement describing the EUT as an amplifier has been removed.

ATCB 15) In the Substitution Methods (page 6 of 31 of 800 MHz CDMA) Note 1 explains that the EIRP = Pin + reduced by db Value + Gain. However it appears that the Pin value may already be corrected by the "reduced by dB value" instead of factored in the calculation as the note implies. Please confirm that the data is correct and provide further clarification regarding the calculations. Please correct the table if necessary.
Handspring) The statement has been modified to reflect the values stated on the substitution table. Also a new column for the “reduced by dB value” has been included on the revised report. Also a new table summarizing the data has been included on the report. The revised report has been uploaded to the ATCB site.

ATCB 16) The high channel block C 1270 on page 15 appears over 2 MHz below the band edge. Please confirm if this is the actual highest channel used in this block. Otherwise pleas provide a new plot for this bandedge.
Handspring) A new plot for Block C 1270 on page 15 has been provided. New revised report has been uploaded with this change.

ATCB 17) Please explain the 0.0631 ppm list**)** To facilitate comparison of the RF power between the two labs, the EMC report includes the conducted RF maximum power that was measured before each test. This can be compared to the conducted power measured at the SAR lab prior to and after each SAR test.
ed for 1900 MHz CDMA. It appears from the report this should be 0.0551
ppm based on 102 Hz at 1851.25 MHz.
Handspring) Page 7 of 17 of the EMC reports lists the frequency stability vs. temperature as 102Hz. 102Hz/1851.25 MHz yields .0551ppm. The entry on the 731 form was in error.

SAR Report
ATCB 18) The frequencies listed in the SAR report for CDMA 800 MHz are 824.7 - 848.31 MHz. However the EMC test report page 3 of 17 states 825.25 - 847.75 MHz. Note that the FCC requires testing at the lowest/highest available channels in each block. Please explain.
Handspring) The frequencies reported in the initial EMC report were in error. The report has been corrected and now correlates with the SAR report.

ATCB 19) The FCC asks that we compare the EMC and SAR power measurements for purposes of ensuring the power during SAR was set to maximum. However the EMC reports only listed ERP and EIRP power measurements while the SAR report included conducted measurements. Please explain how a comparison between the 2 can be shown.
Handspring) To facilitate comparison of the RF power between the two labs, the EMC report includes the conducted RF maximum power that was measured before each test. This can be compared to the conducted power measured at the SAR lab prior to and after each SAR test.