



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  
RE: FCC ID: O8FDK

July 22, 2003

Mr. Johnson,

The additional information you requested regarding our recent FCC certification application (FCC ID: O8FDK) 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](mailto:dwaitt@handspring.com).

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

Best Regards

A handwritten signature in black ink, appearing to read "David Waitt", with a stylized flourish at the end.

David Waitt

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#### General

**ATCB** 1) Please provide internal photograph of the following:

- a) Top of the main board with the RF module removed.
- b) Area underneath the insulation material located on the back of the main board.

**Handspring** ) The requested photos have been uploaded. Note that the metal appearing next to the camera is not a shield enclosing components. It is the back of the shielded SD card enclosure.

**ATCB** 2) It appears that the information regarding the voltage and currents are given for the entire device. Please explain if this information is also valid for the several elements of the final radio frequency amplifying device or if not, please provide this information.

**Handspring**) The information provided is correct for the RF module.

#### Part 15 Class B review

**ATCB** 3) Please provide the test photographs for this testing as part of a separate exhibit.

**Handspring**) Test setup photos have been uploaded as a separate exhibit.

**ATCB** 4) From looking at the operational description, it appears that this device (not including the transceivers) has a 144 MHz clock. According to 15.33(b)(1), this requires digital device emissions testing to be performed up to 2 GHz. It does not appear that this testing was performed. Note that EN55022 does not have this requirement.

**Handspring**) A radiated emissions scan of the device was conducted from 1 to 2 GHz. The highest emissions measured was at 1216.813GHz @ 14.0 dB below the limit. A note indicating this has been added to the revised report.

**ATCB 5)** The conducted emissions appear to be tested to Class B, but page 11 of 14 mentions Class A. Please explain.

**Handspring)** The correct class has been stated in the revised report. The revised report has been uploaded with this reply.

**ATCB 6)** It is not clear the test distance used for Run #2 for Radiated emissions. This appears to be a 3 meter test, but page 4 of 14 mentions 10 meters. Please clarify.

**Handspring)** The distance has been corrected in the revised report.

**ATCB 7)** Please provide the RBW and VBW settings used for the following:

- a) 30 - 1000 MHz Radiated
- b) > 1000 MHz Radiated
- c) 0.15 - 30 MHz Conducted

**Handspring:**

- |                            |            |            |
|----------------------------|------------|------------|
| a) 30 - 1000 MHz Radiated  | RBW:120kHz | VBW:300kHz |
| b) > 1000 MHz Radiated     | RBW:1MHz   | VBW:1MHz   |
| c) 0.15 - 30 MHz Conducted | RBW: 9kHz  | VBW:30kHz  |

The notes at the beginning of the report have been edited to include these values.

#### **Users Manual**

**ATCB 8)** The user manual reports the Head value of SAR for 850 MHz as 1.36 (page 85), however the test report shows 1.49 (SAR report page 6 of 68). Please correct.

**Handspring:** This was an error. The manual will be corrected to reflect the correct SAR value. A revised copy will be uploaded as soon as it is available.

**ATCB 9)** Additionally, from information given in the users manual, the internal module used in the device is designed for operation in both the North American Cellular (850 MHz) and PCS (1900 MHz) bands and also European GSM (900 MHz & 1800 MHz). This application only covers the North American (850 & 1900 MHz) bands. Please provide information that shows that this device is not capable of transmission in the 900 and 1800 MHz bands in the U.S. Additionally, this device will include the following on the grant: "This device contains 900 MHz EGSM and 1800 MHz DCS functions that are not operational in U.S. Territories. This filing is only applicable for the 850 MHz and 1900 MHz GSM operation only.

**Handspring)** An outline of the "network Search" algorithm is outlined below.

```
The quad-band radio protocol stack will do the following:
1. Scan in the 1900 /850 band first for a GSM base station signal.
2. If it finds one, it will listen to it for a little while ( < 1 sec) to make sure all the
characteristics and system information are properly received.
3. Then it will transmit a short access burst (sort of like a ping) and wait for network to
assign it a channel before initiating transmission sequence.
4. If stack does not find any valid GSM signal in the entire band (hundreds of channels),
then it will switch over and listen to 900 /1800 band to see if there's anything there.
5. If there's a valid signal with correct broadcast system information, then the stack will
attempt access as described above in 2 - 3.
6. If there's nothing there either, then stack will go back to 1900/850 and start the cycle
again at 1.
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The Treo 600 GSM will NOT transmit (not even the short access burst) if there's not a bonafide GSM base station in the vicinity.

