

# Washington Laboratories, Ltd.

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February 20, 2008

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

RE: Comments for SYSTEM-100

APPLICATION: VKC-SYSTEM100 Stanley Innerspace

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,

Steven D. Koster EMC Operations Manager

Brian J. Dettling
Documentation Specialist

1) The block diagrams show an optional WLAN. Note that this application does not include a WLAN device and that inclusion of this may require a new FCC ID for the system unless the WLAN is modularly approved and this approval is utilized. If there are any further questions on this, please feel free to contact me. For this application, please confirm that the manufacturer understands this application will only cover their approval as a system that does NOT include the WLAN transmitter and only includes the 13.56 MHz TX.

# R. Please see "WLAN Attestation".

2) While a system level block diagram is provided, the FCC also desires to have a block diagram of the portion of the device that is being certified (13.56 MHz portion). The block diagram should show the frequencies of all oscillators in the TX portion of the device (CFR 2.1033(a)(5)). Please provide.

WLL Project: 9936

# R. Please see "ID ISCMR101-Block-FCC".

3) FYI...In the future, the authorization letter from the applicant should define whom at Washington labs is authorized to sign paperwork on their behalf – not just Washington Labs. See information attached for more detail.

#### R. Noted.

- 4) Internal photographs appear to do little to explain how the device is constructed and also appears to be missing the top and bottom of several boards in the device. I am left asking:
- a) Where are the photographs of the back of the Antenna Board?
- b) Internal to the main host are several daughter boards. Where are the top/bottom photos of these boards and the main motherboard?
- c) Where exactly is the TX circuitry located within the electronics?
- d) The top and bottom of what appears to be simply a USB interface board are provided. However it is uncertain where this even is located in the entire device as it cannot be found in any other photos. Is this board even part of the device given it can not be located?

#### R. Please see "Internal Photos revised".

5) Schematics of the RF reader itself do not appear to be provided. Please provide.

#### R. Please see "ID ISCMR101-Schematic".

6) The Antenna factors used for the 6502 appear lower than normal. Typical antenna factors are about 10+ dB/m. Please verify AF used.

# R. Please see "System100 Test Report rev 1".

7) Test report should document RBW and VBW settings used for all bands measured.

# R. Please see "System100 Test Report rev 1".

8) Conducted emissions setup appears to maybe have been done with terminations. Note that the FCC does allow use of terminations but only for the band of operation 13.110-14.010 MHz. Outside of this band must be performed with actual antennas. See attachment provided.

# R. The terminations were only used for the band of operation, not the rest of the conducted emissios band.

9) Model for IC is listed on the IC form as "SYSTEM 100", while the label states "SYSTEM-100". This information must be consistent. Please correct.

# R. Please see "Application Form - IC revised".

10) FYI...Kindly comment on if the tags are passive or active. Note that active tags require certification. Additionally, kindly comment on the receive frequency. Note that the receive frequency must not be in a restricted band.

#### R. The tags are passive.

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- 11) Please comment on the use of this as a PC peripheral device under FCC rules. Note the device does not currently request Certification as a PC peripheral nor labeled for a DoC. Note manual does denote Class B emissions as well
- R. The cabinet, because of its intended use, would fall under the Class A requirements of Part 15.109.
- 12) If antennas are detachable, IC asks that the users manual include additional information such as RSS-GEN 7.1.4 and 7.1.5. Please review.
- R. Please see "System 100 User Guide R8".

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