

Sirius XM Radio Inc. 1500 Eckington Place NE Washington, DC 20002

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siriusxm.com

December 15, 2011

Timothy R. Johnson, Examining Engineer American Certification Body, Inc. 6731 Whittier Ave., C110 McLean, VA 22101

Re:

Class II Permissive Change Application

FCC Identifier RS2SXI1

Dear Tim:

This application requests a Class II permissive change of the Sirius XM Lynx Portable Radio, FCC Identifier RS2SXI1. The specific changes in the device from the version the Commission certified on October 6, 2001 are as follows:

- 1. Add C782 10UF & C783 10UF to Increase V_REG_IN capacitance by 20UF;
- 2. Add VAC_IN to feed VAC on Triton charger for auto-on;
- 3. Change touch panel LED drive circuit for improved brightness;
- Change U2000 to C65 P3 ROM;
- 5. Allow for pull-ups on PSEL R322 DNP and ISET2 R323 DNP;
- 6. Change R1325 to 1K for additional ESD protection;
- 7. Changed software to select the 26MHz reference instead of the 32.768KHz reference due to FM frequency tolerance fallout in factory build; and
- 8. Changed L1808 from 2.2nH to 3.9nH for improved WiFi antenna efficiency.

Item 8 on this list is the only change necessitating the current application. The documentation submitted with the application, and specifically the "SAR Compliance Evaluation Report" from PCTest Engineering Laboratory, justify that the application qualifies as a Class II permissive change.

The Part 15 grant for this device shows "output power" as the measured power of the device over which the end user has <u>no control</u>. This is different than the "rated power" of a device mentioned in Rule 2.1043 which normally applies to licensed transmitters over which the user is <u>allowed to exercise control</u>. Accordingly, we do not think that minor output power degradations for an unlicensed device should require a new certification. In this regard, please be advised as follows:

- 1. The maximum degradation in measured RF output power for the modified device will be on the order of 1.5 dB.
- 2. The modified device will still be 15dBm under the FCC Part 15 limits.

- 3. The degradation in measured RF output power is due to the +/- 2.5 dBm tolerance shown on the data sheet for the Texas Instrument WiFi component. Sirius XM's determination in this respect is based on the following facts:
 - The RF power in the WiFi component is controlled by software and the software configuration in the modified device is identical to the software configuration in the originally certified device.
 - The return loss into the WiFi antenna is identical to the return loss in the antenna of the originally certified device.
 - Measurements were taken on a second identical sample incorporating the same modifications and WiFi output power variations were also observed (e.g. 0.73dB degradation as compared to the originally certified device).

Please contact me or Beejay Jolayemi promptly if you have further questions. Thank you for your assistance.

Very truly yours,

ames S. Blitz

Vice President, Regulatory Counsel