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ATCB
6731 Whittier Avenue
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26 Feb 2005

Attention: Dennis Ward

RE: FCC ID: SNKHNET50BS_ATCB002182

The following is in response to your letter dated 25 Feb 2005:

1. Please note that the 731 frequency must be the the center of the lowest channel to the center of the highest channel. Please clearly identify these frequencies on the 731.

   New 731 has been submitted with correct channel frequencies.
   Reference file: **RV58090-ATCB-Form-731R2**

2. Please note that the report (Part 1 page 4) states the frequency range is between 900-928MHz and is a FHSS system. Please explain if this is supposed to be 902-928MHz. Please correct as necessary.

   Correction were made to the report:
   Reference in the report: **Page 4 of 94**

3. The description of the device in the report (part 1) and the operational description calls this a "single channel" device. Documentation presented calls this a FHSS system. Please explain. Is this a FHSS device or is this a single channel device?

   This is a base station which can only communicate to a single satellite at a time (single channel), it is a FHSS device which operates on 64 channels. The operational description has been updated an included in the report and as a separate attachment.
   Reference in the report: **Page 12 of 94**
   Reference file: **Op Description R2**

4. Please note that your report states that the .0555sec pulse only repeats a frequency every 15seconds. Please note that assuming equally spaced and distributed hops of 55.5ms each, and with 65 or 66 frequencies the repeat frequency time (dwell) of a single frequency would appear to be less than once every 3.5 or 4 seconds and not once every 15 seconds. This would mean that the channel hop sequence has a non transmitting time of about 170ms between hops (i.e. 55ms on + 170ms off between hops). Please explain where the 15 seconds comes from on page 10 of the report. Please recalculate the dwell time for the actual time each channel dwells during the allotted time frame.

   The hopping characteristics have been expanded in the report pages 59-64. In particular page 62 explains the timing sequence in more detail. There is a lag in between hops set by software.
   Reference in the report: **Pages 59-64 of 94**

5. Please note that power measurements for a FHSS device needs to be done with the hopping stopped. Also, a low mid and high frequency power measurement should be made. Please provide power measurements with the hopping stopped but with a modulated carrier (channel).

   Software does not allow for operating on a single channel. Power measurement were retaken on low, mid, and high channels by using video triggering. Plots are representative of the intent of the requirements.
   Reference in the report: **Pages 66-68 of 94**

   ATCB note - retesting with hopping stopped was subsequently performed

6. Please note that for power measurements of FHSS devices the resolution bandwidth used must be greater than the 20dB bandwidth of the emission. This would mean that the resolution bandwidth used to make power measurements in this situation would be at least 390kHz. Please provide power measurements using the proper resolution bandwidths.

   Measurements were retaken with correct bandwidth and frequency span and are included in the report.
   Reference in the report: **Pages 66-68 of 94**

7. Page 1 of part 3 of the test report states that the frequency range is 2.4 to 2.48GHz. Please note that this appears to be a 902-928MHz device. Please explain and please provide a corrected report stating the actual frequency range of the unit.

   Typographical error, report has been corrected:
   Reference in the report: **Page 70 of 94**

8. Please provide the required radiated spurious emissions data. Please pay attention to the restricted bands specified in Part 15.

   Radiated spurious emissions in the restricted bands have been included in the report.
   Reference in the report: **Pages 28-50 of 94**

9. Please note that this device is significantly large enough to have the 2-condition statement as required by 15.19. Please provide a sample label with this statement.

   Label has been corrected as required. Report has been updated as has the label info doc.
   Reference in the report: **Pages 5, 83-84 of 94**
   Reference file: **Label Info R2**

10. Please provide a sample of the pseudorandom hopping sequence. Please include all useable hopping frequencies in this pseudorandom list. Please provide some information on how the pseudorandom sequence is generated.

    Pseudorandom list has been included in the report. All usable hopping frequencies are included.
    Reference in the report: **Pages 63-64 of 94**

11. Please note that the statement "HNET 5.0 Single Channel Base station was designed to be the controlling hub for the HNET 5.0 radio system" does not adequately explain what the device is. Please provide an operational description that more clearly describes what this device is. i.e. what is it used for, what is the HNET 5 radio system and how is it used?

    The operational description has been updated an included in the report and as a separate attachment.
    Reference in the report: **Page 12 of 94**
    Reference file: **Op Description R2**

12. Please address the required rf exposure requirements in the user manual.

    The users manual has been updated an included in the report and as a separate attachment.
    Reference in the report: **Page 6-11 of 94**
    Reference file: **BaseStation User Manual RevA1**

Because there have been some concerns in the past about supply supplemental data a new report has been generated in its entirety. Please do not use any portion of the previously submitted report, but use instead the revised report. The breakdown of report parts is as follows:

RV58090A FCC Test Report Part 1 R2	Pages 01-30	3.78MB
RV58090A FCC Test Report Part 2 R2	Pages 31-41	3.63MB
RV58090A FCC Test Report Part 3 R2	Pages 42-54	3.72MB
RV58090A FCC Test Report Part 4 R2	Pages 55-70	3.88MB
RV58090A FCC Test Report Part 5 R2	Pages 71-82	3.22MB
RV58090A FCC Test Report Part 6 R2	Pages 83-94	1.10MB

ATCB note - subsequent rf MPE provided for R3 of reports

Kindest regards,

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