



American TCB

August 23, 2007

RE: FCC ID:UXMWAY5000 (VLNWAY5000)

Attention: Tim Johnson

Please find our responses to your comments on this application below:

1) Grantee Code UXM does not appear to show as a valid FCC ID on the FCC Site. Please review.

New Grantee code received. Uploaded a file "Product Label Rev 0.5.doc" which covers the new label. Also uploaded revised reports

2) If confidentiality is required on the tune up procedure and parts list, kindly add this information to the confidentiality letter. These exhibits are not considered as operational description exhibits to the FCC.

Uploaded file "Revised Confidentiality Request Way Systems.pdf"

3) Voltage vs. Frequency data was not found for Part 22 or Part 24. Please correct.

For the part 22 report it's on page 39 of 48 and for the part 24 it's on page 26 of 36.

4) Part 22 requires ERP substitution method for the fundamental. Please provide. Note that generally cellphones and similar devices require both conducted and ERP/EIRP power measurements. Portable devices should be tested and not simply adjust conducted measurements by antenna gain.

The notes for the radiated field strength state that erp would only be performed if the signals were within 20db of the calculated field strength limit. Since none of the emissions were within 20dB no substitutions were done.

5) Part 24 requires EIRP substitution method for the fundamental. Please provide. Note that generally cellphones and similar devices require both conducted and ERP/EIRP power measurements. Portable devices should be tested and not simply adjust conducted measurements by antenna gain.

The notes for the radiated field strength state that eirp would only be performed if the signals were within 20db of the calculated field strength limit. Since none of the emissions were within 20dB no substitutions were done.

6) Frequency tolerance listed on the 731 forms do not appear to match test reports. Please correct.

Corrected and uploaded

7) Kindly provide a Test Photograph Exhibit.

uploaded file "Test Configuration Photographs.pdf"

8) This device appears to be capable of USB connection to a PC and is therefore also considered a PC peripheral device (in addition to the TX requirements, i.e. Part 22, etc.) and is subject to either a Certification or DoC as a PC peripheral. Therefore the application must clarify if you are asking for:

- a) Certification of the device as a TX, and a DoC has been performed by an appropriately accredited test lab for a PC peripheral
- b) Certification as a TX + PC peripheral.

Note 1: The option b) would be considered as a composite application and 2 certificates (one for the TX, one for the PC peripheral portion) would be issued. Note that there are additional review costs associated with this additional certification.

Note 2: To qualify to perform DoC applications, the test lab must be accredited (i.e. NVLAP or A2LA) to perform testing under the DoC procedure.

Note 3: Note that for DoC tests, the device is configured with a minimum test configuration as specified by ANSI C63.4 which includes complete computer + 2 I/O devices attached (one may be the EUT) during this particular test. Information appears to be provided that supports this.

Note 4: Each path (DoC or Certification) has particular labeling requirements that must be followed. For DoC authorizations, the label should also include specific DoC labeling information and also the users manual should include information regarding Part 2.1077. If the device is Certified, the FCC ID and current labeling requirements for the TX will cover the labeling requirements. However, additional grants are generated and review costs are higher. Currently labeling and users manual do not support a DoC. The manufacturer does have a choice of DoC or Certification, however the device labeling and manual information must match the appropriate methods used.

[This is a verification as the device is intended for use in a POS environment not for personal computer.](#)

9) Regarding the labeling in the battery compartment, the FCC label can be placed in a user accessible area if the following conditions are met.

- a) The FCC identifier is visible at the time of purchase. Marketing the device without the battery installed when the label is in the battery compartment is acceptable. The FCC identifier on the box or additional documentation directing the user as to where to find the FCC label also satisfies this requirement. Please provide information to support this.
- b) b) The user accessible area must not require any special tools for access and the FCC label must not be placed on a removable part.
- c) c) The FCC identifier, model no. or FCC logo must be on the label and must meet all general labeling requirements or policies that apply for Certification, Verification or DOC; e.g. for Certification, for handheld devices, the identifier must go on the label but the two part warning statement in Section 15.19(a)3 can go in the manual.

[Refer to file "Product Label Rev 0.5.doc" and Letter file "Letter regarding FCC Label Location.pdf"](#)

10) Users manual does not appear to contain appropriate 15.21, 15.105, appropriate RF exposure information (required spacings, meets with SAR requirements, non-use of metallic accessories, etc.), and DoC (if relevant) information. Please correct.

[Uploaded file "Revised way5000 Operating Instructions.pdf"](#)

11) Kindly explain any body worn accessories for use with this device. Note specific accessories provided or offered by manufacturer should be evaluated.

[There would not be any body worn accessories as the device is used solely in a POS environment and is not intended to be worn on the body.](#)

Remaining comment responded to by RF Exposure Labs

12) Tissue values on page 16 of the SAR report appear to be missing 835 MHz head.

[I had inadvertently forgot to add the head tissue values. I have revised the report attached with the head values.](#)

13) FCC expects sample used for SAR to have power \geq EMC report. 835 MHz appears satisfactory, but 1900 MHz power appears lower than reported for EMC. Please review.

I have revised the report as there was one dB of loss in the cable which I used for measurement.

14) Recent information from the FCC requires the target values for the validation to be within 10% of the **manufacturers calibrated dipole SAR value**. Please correct.

These have been corrected in the attached report update.

15) Kindly explain if GPRS mode will work while a voice call is in progress. If so, then the crest factor for head may be incorrect.

Once in a GSM call, you cannot simultaneously have a GPRS call. Therefore, the crest factor is correct.

16) SAR report appears to be missing:

All of these items have been added to the attached report on the page and paragraph noted for each.

- a) Descriptions of interpolation procedures used to locate peak SARs at a finer spatial resolution
page 5 para. 8
- b) Descriptions of extrapolation procedures used to estimate SAR values adjacent to phantom surface (unreachable due to probe case and boundary effects)
page 5 para. 8
- c) Descriptions of within-cube interpolation procedures to get 1 mm or 2 mm SAR grid
page 5 para. 8
- d) Description of averaging (integration) procedures to get 1-g SAR from final interpolated grid
page 5 para. 8
- e) Confirm that distance between the measurement point (distance + offset) at the probe sensor location (geometric center behind the probe tip) and the phantom surface is < 8.0 mm and maintained at a constant distance of ± 1.0 mm during an area scan to determine peak SAR locations
page 6 para. 3
- f) confirm that when Probe boundary effect compensation is not used the probe tip should be positioned at least half a probe tip diameter from the phantom surface during area and zoom scans.
page 6 para. 4
- g) Confirm that the first 2 measurements points in a zoom scan, closest to the phantom surface, should be within 1 cm of the surface.
page 6 para. 5

Regards,



David Guidotti
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