



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

July 23, 2007

RE: Wistron Corporation

FCC ID: H9PMC3574

After a review of the submitted information, I have a few comments on the above referenced Application. Depending on your responses, kindly understand there may be additional comments.

[Blue Denotes Response from Lab/Applicant/Speag](#)

1) HAC compliant handsets required certain labeling information according to 20.19(f). This information was not provided. Please provide. Note:

(f) *Labeling requirements.* Handsets used with public mobile services that are hearing aid compatible, as defined in §20.19(b) of this chapter, shall clearly display the U-rating, as defined in 20.19(b)(1), (2) on the packaging material of the handset. An explanation of the ANSI C63.19–2001 U-rating system shall also be included in the owner's manual or as an insert in the packaging material for the handset.

This information should

- a) be complete and easily understood by a lay person,
- b) explain the HAC rating system for both the wireless device and hearing aids and there use as a pair.
- c) explain how to use the device (i.e. antenna position usages, etc.)
- d) provide details of any special user selectable HAC modes (HAC mode may turn off back light, BT, T-coil on, etc.)

[See Revised Manual](#)

For Acoustic:

2) It is believed that simply the reference to C63.19-2001 R 3.12 is incorrect (page 3). Revision 3.12 is actually a 2006 edition and not a 2001 edition. Please clarify as if the older version is actually utilized, it will require additional time/effort with the FCC to process as the FCC requires us to consult with them if only tested to the 2001 version.

[We revised our report to C63.19-2006](#)

3) Page 10 references test setups and CDMA signals. This device appears to be GSM. Please review. Note levels, codes, and other information should be supplied as necessary for GSM.

[We revised our report if there is any descript "CDMA" to "GSM"](#)

4) Page 12 shows a rating of M4 for one data set, but the limits suggest this should be M3. Please review.

[See Current Report](#)

5) Page 3 cites the device is an identical prototype. The FCC requires an explanation of the difference between the prototype and final production units be fully explained.

[This is mistake. We changed it to Production Unit from report.](#)

- 6) TCB's are not allowed to evaluate HAC with other TX functional (BT/WLAN, etc.), but approval is allowed if these modes are required to be off during HAC use. However users manual must inform the user of this fact. Please update.

The case is co-location case and already grantee by FCC. Manufacturer has not added information to the manual to turn off WLAN. For now, our client would like to get HAC & T-coil grantee.

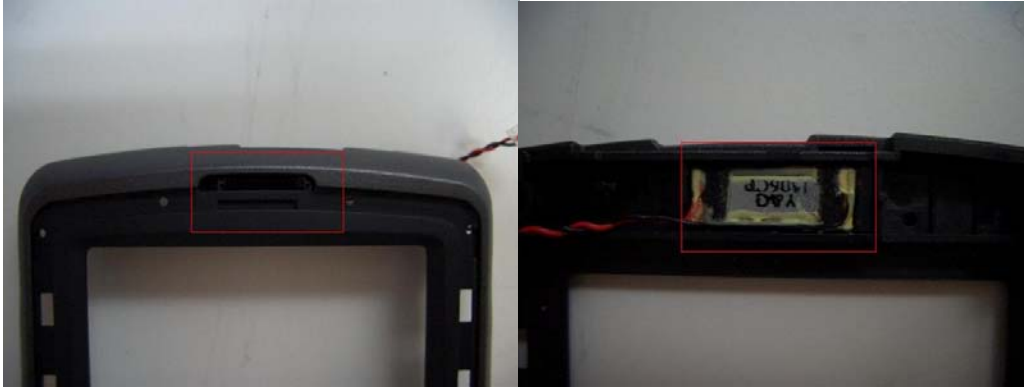
- 7) Does WLAN provide VoIP functionality (Voice over WLAN). If so, this mode must also be tested for HAC compliance.

No. This product without VoIP function.

- 8) It is uncertain if the T-coil location is also the center of the acoustic location. If the T-Coil location is in a different location from the acoustic output, then two different 5 cm by 5 cm areas are to be scanned for Acoustic Mode Testing. The first for the microphone mode assessment and the second for the T-Coil assessment. The location of the microphone mode 5 cm by 5 cm area is centered on the acoustic output of the WD and is defined in Clause A.2 and depicted in Figure A.2. The location of the grid for the T-Coil assessment is identical in shape but is centered on the T-Coil axial measurement location, as defined in Clause A.3 and depicted in Figure A.3.

Please check these pictures which shows the location of HAC position is same as Acoustic position. Please let us know it is not a problem now.





- 9) Regarding exclusion blocks of 512 and 661 channels, the maximum of 5 exclusion blocks was exceeded for combination of E and H field. Please review.

As ANSI 63.19 page 32 item 5 as, The 5 block can be exclude for both E- and H-field measurement for the WD output being measured.

- 10) Test report should include a description of how processing of the raw measurement values both in the measurement electronics as well as post measurement in the computer are done. Additionally, assurance that conversion to conversion to peak field strength is correct.

Lab: We'll check with Speag – ATCB: No further Response Yet Received

- 11) Power output is expected to agree with previous EMC reports within 0.5 dB. In the 850 MHz band, it appears power is 0.6 dB lower, and 0.7 dB lower in the 1900 MHz band. Please review.

Please see new revised reports

- 12) FYI....It appears that validation and target values reversed in the table.

We had revised our report.

T-Coil

- 13) It is believed that simply the reference to C63.19-2001 R 3.12 is incorrect (page 3). Revision 3.12 is actually a 2006 edition and not a 2001 edition. Please clarify as if the older version is actually utilized, it will require additional time/effort with the FCC to process as the FCC requires us to consult with them if only tested to the 2001 version.

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- 14) Section 2.3 implies that the manufacture can define the testing positions. However the grid should be centered on the t-coil location.

We revised our T-coil report page 5 test method as ANSI C63.19 page 35. Please check revised report

- 15) FCC expects Use of multiple signal types for the different measurements to to be clearly documented and justified. Example 1 KHz CW for ABM1 per 6.3 procedure, and P50 for frequency response per 6.4, etc. Please explain which signal types were applied in this test.

To Lab from Speag

- voice 1kHz 1s sequence (deducted from P50) for the scans.
- sine 1 kHz ? length for the point measurements.
- wideband voice signal 300 - 3000 Hz 2s sequence (deducted from P50) for the frequency response. For this signal, the bandwidth compensation of 10.8 dB applies.

If use of the alternative broadband procedure was used, please explain. Note use of this procedure may have additional questions as well.

To Lab from Speag

DASY uses always the broadband procedure for frequency response measurement, because some codecs do not allow to pass pure sine signals. It is a voice sequence of 2s duration deducted from the P50 signal with quite a flat spectrum, limited to the frequency range 300 - 3000 Hz. The result is the difference between the measured output (probe signal with integrator applied) and the input spectrum. The BWC is applied because at the desired input level, the spectral components within the 1 kHz filter are lower compared to a signal limited to the 1 kHz third-octave band.

- 16) Information regarding integration time for ABM2 measurement should be justified. Inclusion of all audio band is required.

Please check our T-coil report page 14 Table 6. It has ABM2 measurement already

- 17) FCC has been requiring that validation of the ABM2 measurement should be reviewed. Generally this will involve at least a frequency response curve and a demonstration of the ability to power sum. Please explain/provide information to support this.

Response to Lab From Speag

DASY is using the same integration time for both signal (ABM1) and noise (ABM2) measurement. The setting is visible from the da4 file. We have included the integration time in the release of this week. As mentioned above, your table 4 contains a footnote. To judge if this is applicable, you need in your report also a noise spectrum at the desired point (axial, two radial) to show how the spectral noise composition.

The ability to power sum has been reported by SPEAG to the FCC. As an implicit proof of this ability, you can see that the bandwidth compensation factor of the wideband voice signal is 10.8 dB. You may perform a separate proof by applying a pure sine signal at one frequency, and of the same weighted level at a different frequency. When applying both signals at the same time, the increase in amplitude should be 3dB (i.e. power sum of two equal sources).

- 18) Method for locating the maximum response position for measurement should be documented.

Response to Lab From Speag

The result is shown at these cursor positions.



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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

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