

## Chris Harvey

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**From:** [REDACTED] [niky5784@e-ctk.com]  
**Sent:** Monday, December 17, 2007 9:24 PM  
**To:** [REDACTED] charvey-tcb@ccsemc.com  
**Cc:** [REDACTED]  
**Subject:** WLAN is DTS\_WIBRAIN,INC., FCC ID: VVHB1, Assessment NO.: AN07T7432, Notice#1

**Attachments:** [B1] Op Discription\_Wifi.pdf; [B1] Confidentiality.pdf; [B1] External Photo.pdf; [B1] Label and Location.pdf; [B1] Antenna specification.pdf; [B1] Authorization Letter.pdf; [B1] User Manual.pdf; [B1] Part List.pdf; [B1] Schematics.pdf; [B1] Block diagram.pdf; [B1] Internal Photo.pdf; [B1] Test setup Photo.pdf; [B1] Test report\_WLAN.pdf

[B1] Op Discription\_Wifi.pdf [B1] Confidentiality.pdf [B1] External Photo.pdf [B1] Label and Location.pdf [B1] Antenna specification.pdf [B1] Authorization Letter.pdf [B1] User Manual.pdf

[B1] Part List.pdf [B1] Schematics.pdf [B1] Block diagram.pdf [B1] Internal Photo.pdf [B1] Test setup Photo.pdf [B1] Test report\_WLAN.pdf

This is WLAN DTS part

Thanks,  
Best Regards  
Hyun Chae

-----Original Message-----

From: [REDACTED] [mailto:niky5784@e-ctk.com]  
Sent: Tuesday, December 18, 2007 11:19 AM  
To: 'charvey-tcb@ccsemc.com'  
Cc: [REDACTED] (koreacoco@e-ctk.com); (klmn2002@e-ctk.com)  
Subject: Bluetooth is DSS\_WIBRAIN,INC., FCC ID: VVHB1, Assessment NO.: AN07T7432, Notice#1

Dear Chris Harvey

Please see the attached revised file you required As you say, i apply to in separate application; In this case, is the double in Application fee?  
It is December 21, the target date my client hope; Please keep the date if possible

Thank you for your help

Best Regards  
Hyun Chae

-----Original Message-----

From: charvey-tcb@ccsemc.com [mailto:charvey-tcb@ccsemc.com]  
Sent: Saturday, December 15, 2007 3:45 AM  
To: joonpak@e-ctk.com  
Cc: charvey-tcb@ccsemc.com; mkuo@ccsemc.com  
Subject: WIBRAIN,INC., FCC ID: VVHB1, Assessment NO.: AN07T7432, Notice#1

Dear You Hyun-Chae,

You are listed as the Technical Contact for the above referenced TCB application. The application review has not been completed as several fundamental errors have been found. The following item(s) need(s) to be resolved before the review can be started:

1. This device is an Ultra Mobile PC computer device which incorporates a WLAN device and

a Bluetooth device. The WLAN device operates using 347mW of conducted power. The Bluetooth device is co-located with the WLAN transmitter. These 2 transmitters must be filed in separate applications, although they can both be filed using the same FCC ID number (WLAN is 15.247 Equipment Class DTS and Bluetooth is 15.247 Equipment Class DSS).

2. Please note that this device may be categorized as a Mobile RF Exposure device (small handheld device), which operates at 20 cm or greater from the body, excluding hands. Please ensure that there is clear guidance to the users (in the manual) to ensure that the users are aware of the need to maintain 20cm separation to the body.

3. The Operational Description indicated that the chipset is Bluetooth 2.0 +EDR compliant. Please confirm that this final device is fully +compliant with Bluetooth Version 2.0 + EDR in order to ensure compliance with the following FCC 15.247 requirements:

Is the hopping sequence pseudorandom, based on the technical description?

Is each channel used equally on average, based on the technical description?

Does the associated system receiver have a compliant input bandwidth, based on the measured 20 dB emission bandwidth?

Does the associated system receiver have the ability to hop in synchronization with the transmitter, based on the technical description?

Does the design of the frequency hopping system allow it to comply with all pertinent requirements when presented with a lengthy data stream?

Does the frequency hopping system comply with the non-coordination requirement?

4. Please note that current FCC policy is that the test report must be separated to address the WLAN - DTS and Bluetooth - DSS portions separately. The separate test reports must each be submitted with the appropriate Equipment Class (the Bluetooth test report must be submitted with the DSS application and the WLAN test report must be submitted with the DTS application)

5. You have indicated the CTK Co. is accredited to 17025 by KOLAS; however your test report does not indicate that it was performed in accordance with your KOLAS accreditation or scope. Please confirm that the testing has been performed in accordance with your accreditation.

6. Please note that the FCC required text from FCC 15.105 needs to be included in the Users manual.

7. The Users manual indicates that this device must not be co-located with any other transmitter, but page 44 states:

"If you are able to use WiFi there is no problem but on the street or in a subway you will need to purchase a wireless module for HSDPA, GSM, GPRS, UMTS, EDGE."

This recommendation to use another module must be removed from the manual.

Also, Please note that the Parts List submitted (not required to be submitted and is not listed as confidential) lists a GSM antenna. Please clarify that this device does not have a GSM antenna and is not capable of operating as a GSM transmitter. Also, please confirm that it is OK to remove the Parts List from this application.

8. Please submit Block Diagrams for the Bluetooth portion and WLAN portion of this device (the general Block Diagram just has a single block for each transmitter).

9. The label location exhibit shows the label contained in the battery compartment. In order for this to be accepted, you must provide a declaration that the label will be visible at the time of purchase and before the first use (for example the battery must be installed before the first use.)

10. The internal photos are not of sufficient clarity to read the component values on the PC Boards. Also, it appears as though there are sub-boards that are covering portions of the internal PC Boards. Please submit updated internal photos with sufficient clarity and showing all internal components and both sides of each board.

11. The test setup photos show this EUT oriented only in one vertical orientation. Since this is a portable device that could be used in any orientation, the FCC requires that testing be performed in all 3 orthogonal axes. Please update the test report to document

testing (or at a minimum scanning to find worst case) in all 3 orthogonal axes.

12. There are 2 antennas for this device, one for the WLAN and one for the Bluetooth. One antenna specification sheet has been provided, but no indication of which transmitter uses this antenna. Please submit antenna specifications for both transmitter, clearly indicating which transmitter uses which antenna.

Please note that CCS has moved from the Morgan Hill facility. Please update your letters (and templates for future application) to this new address:

CCS  
47173 Benicia Street  
Fremont, CA 94538

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.

Best regards,

Chris Harvey  
Charvey-tcb@ccsemc.com