Chris Harvey

From: □□□ [skcho@ktl.re.kr]
Sent: Friday, February 29, 2008 7:42 AM
To: charvey-tcb@ccsemc.com
Cc: temple@ktl.re.kr; banjg@ktl.re.kr
Subject: RE: SAMSUNG ELECTRONICS CO., LTD., FCC ID: A3LSMT-I8130, Assessment NO.: AN08T7631, Notice#2

Attachments: A3LSMT-I8130,UPCS portion.zip; A3LSMT-I8130,WLAN portion.zip


A3LSMT-I8130,UPCS portion.zip ...


A3LSMT-I8130,WLAN portion.zip ...

Dear Chris,

I attached application documents separate UPCS and WiFi portion.

These are my answers.
1. The text in the antenna specification exhibits is not legible.
Please submit replacement antenna specification exhibits that can be read which should include peak gain information for each antenna.
Ans) Please refer to the attached revised antenna specification exhibits.

2. The Antennas are stated as 0dBi on pages 17 and 27 in Block/Circuit desc exhibit, 2dBi on page 32 of same exhibit (and states that UPCS has only 1 antenna) but UPCS test report states the antenna is 3.5dBi gain and WLAN report states 2.48dB gain. The MPE exhibit states the UPCS antenna is 3.5dBi gain and WLAN antenna is 4.5dBi gain. Please correct all exhibits to be consistent.
Ans) Please refer to the attached revised circuit description, and I will send revised MPE test report in a soon.

3. Please indicate if the WLAN can transmit at the same time as the UPCS transmission. The MPE calculation submitted does not address simultaneous transmission.
Ans) WLAN can transmit at the same time as the UPCS transmission. I will send revised MPE test report in a soon.

4. The Schematic Diagram for this Base unit contains a location for the WLAN mini-PCI slot but does not contain the WLAN RF Schematic. Please provide the RF Schematic for the WLAN module.
Ans) Please refer to the attached revised circuit diagram. I put the WLAN RF module circuit diagram.
5. The Quick Guide has FCC RF Exposure guidance but it is a little confusing regarding which guidance is for each of the 3 different devices (Base, Frame and Handset) of this system. Please clarify this RF Exposure guidance section to clearly indicate which guidance is for each portion of this system.
Ans) Please refer to the attached revised Quick Guide.

6. The WLAN RF Test report documents the Peak Power output test stating on page 10 that a 30kHz RBW is used , with plots showing a 1MHz RBW, but the emission bandwidth is much greater than 1MHz. Please explain this measurement, including how this measurement complies with the FCC's DTS measurement guide http://fjallfoss.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=21124&switch=P
7. The Peak Power Spectral Density measurement has not been performed in accordance with the DTS measurement guide referenced above. The span is expected to be much smaller than shown and the sweep time would be much longer than shown. Please revise the test report to include PPSD measurements in accordance with the FCC's DTS measurement guide.

8. Please submit Radiated Spurious emissions data for the restricted band frequencies at the low and high band edges (2.39GHz and 2.4835GHz).
Ans)Please refer to the attached revised WLAN test report.

9. The UPCS test report seems to have several errors:
a. The emission bandwidth table has EBW measured values that do not seem to match the plots
b. The middle channel plot seems to have a display line that is more than 26dB down from the peak, resulting in 26dB EBW stated value that is wider than the measurement indicates.
c. It is not specified which values of the EBW was used to determine the Power Limits of the Peak transmit power section. Please ensure that you are using the measured EBW values and show all calculations used in the report (show EBW, and the calculation for power limit), including any reduction of power limits due to antenna gain.
d. Please update the test report to show the calculation for all limits included in the test report.
Ans)Please refer to the attached revised UPCS test report.

Thankyou.

Best Regards,
sung-kyu Cho

-----Original Message-----
From: charvey-tcb@ccsemc.com [mailto:charvey-tcb@ccsemc.com]
Sent: Friday, February 29, 2008 5:23 AM
To: skcho@ktl.re.kr
Cc: charvey-tcb@ccsemc.com
Subject: SAMSUNG ELECTRONICS CO., LTD., FCC ID: A3LSMT-I8130, Assessment NO.: AN08T7631, Notice#2

Dear Sung-kyu Cho,

You are listed as the Technical Contact for the above referenced TCB application. The following item(s) need(s) to be resolved before the review can be continued:

The UPCS and WLAN portions of this device must be submitted in separate composite device applications per Notice #1.

1. The text in the antenna specification exhibits is not legible. Please submit replacement antenna specification exhibits that can be read which should include peak gain information for each antenna.
2. The Antennas are stated as 0dBi on pages 17 and 27 in Block/Circuit desc exhibit, 2dBi on page 32 of same exhibit (and states that UPCS has only 1 antenna) but UPCS test report states the antenna is 3.5dBi gain and WLAN report states 2.48dB gain. The MPE exhibit states the UPCS antenna is 3.5dBi gain and WLAN antenna is 4.5dBi gain. Please correct all exhibits to be consistent.
3. Please indicate if the WLAN can transmit at the same time as the UPCS transmission. The MPE calculation submitted does not address simultaneous transmission.
4. The Schematic Diagram for this Base unit contains a location for the WLAN mini-PCI slot but does not contain the WLAN RF Schematic. Please provide the RF Schematic for the WLAN module.
5. The Quick Guide has FCC RF Exposure guidance but it is a little confusing regarding which guidance is for each of the 3 different devices (Base, Frame and Handset) of this system. Please clarify this RF Exposure guidance section to clearly indicate which guidance is for each portion of this system.
6. The WLAN RF Test report documents the Peak Power output test stating on page 10 that a 30kHz RBW is used , with plots showing a 1MHz RBW, but the emission bandwidth is much greater than 1MHz. Please explain this measurement, including how this measurement complies with the FCC's DTS measurement guide http://fjallfoss.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=21124&sw itch=P

7. The Peak Power Spectral Density measurement has not been performed in accordance with the DTS measurement guide referenced above. The span is expected to be

much smaller than shown and the sweep time would be much longer than shown. Please revise the test report to include PPSD measurements in accordance with the FCC's DTS measurement guide.
8. Please submit Radiated Spurious emissions data for the restricted band frequencies at the low and high band edges (2.39GHz and 2.4835GHz).
9. The UPCS test report seems to have several errors:
a. The emission bandwidth table has EBW measured values that do not seem to match the plots
b. The middle channel plot seems to have a display line that is more than 26dB down from the peak, resulting in 26dB EBW stated value that is wider than the measurement indicates.
c. It is not specified which values of the EBW was used to determine the Power Limits of the Peak transmit power section. Please ensure that you are using the measured EBW values and show all calculations used in the report (show EBW, and the calculation for power limit), including any reduction of power limits due to antenna gain.
d. Please update the test report to show the calculation for all limits included in the test report.

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