Chris Harvey

From: SunHee Kim (HCT) [alondra@hct.co.kr]
Sent: Monday, November 24, 2008 3:56 AM
To: 'chris.harvey@ccsemc.'; lucy.tsai@ccsemc.com; Chris Harvey; charveyemc@gmail.com
Cc: khpark (HCT); Sang-Jun Lee (HCT); Nam-Wook Kang (HCT)
Subject: [1] Re: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1
Attachments: N_User's Manual_Rev.1.pdf; A_COVER LETTER_Rev.1.pdf; B_Authorization letter_A600_Rev.1.pdf; C_STC Letter_A600_Rev.1.pdf; D_RF Test Report_Part22_24_27_Rev.1.pdf; INTERNAL PHOTO_Rev.1.pdf

Hello Chris,

Thank you for your great support!!
We attached the revised documents and replies are embedded below your questions in Red.

<Attachment files list>
A_COVER LETTER_Rev.1
B_Authorization letter_A600_Rev.1
C_STC Letter_A600_Rev.1
D_RF Test Report_Part22_24_27_Rev.1
INTERNAL PHOTO_Rev.1
N_User's Manual_Rev.1
O_SAR Report_A600_Rev.1
P_SAR TEST SETUP-PHOTO_A600_Rev.1

Please find the responses and attachment files and let us know if this is insufficient or if more coordination is necessary.

Best Regards,
SunHee Kim

> ----- Original Message -----
> **From:** charveyemc@gmail.com
> **To:** SunHee Kim (HCT) ; Chris Harvey ; lucy.tsai@ccsemc.com ; 'chris.harvey@ccsemc.'
> **Sent:** Friday, November 21, 2008 9:44 AM
> **Subject:** Re: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1
>
> Sun Hee I will take a holiday next Thursday but I will monitor emails that day in case there is any emergency.
> Sent via BlackBerry from T-Mobile
>
> ---
>
> **From**: "SunHee Kim \(HCT\)" <alondra@hct.co.kr>
> **Date**: Fri, 21 Nov 2008 09:22:13 +0900
> **To**: Chris Harvey<charvey@ieee.org>; <lucy.tsai@ccsemc.com>; 'chris.harvey@ccsemc.'<chris.harvey@ccsemc.com>
> **Subject**: Re: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1
> Hello Chris,
>
> We've compared the RF power with Y-cable and without cable.
> And we found that the power is almost same.

We are now performing these testing.
Once we complete this, I'll re-submit the relavant documents on Monday.

I heard that it is Thansgiving day holiday in U.S. from Nov. 27.
Could you check your schedule?

Best Regards,
SunHee Kim

----- Original Message -----
From: Chris Harvey
To: 'SunHee Kim (HCT)' ; lucy.tsai@ccsemc.com ; 'chris.harvey@ccsemc.'
Sent: Thursday, November 20, 2008 8:30 PM
Subject: RE: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

SunHee, from the manual description the supplied cable is a Y-cable that connects to 2 USB ports for added power. Please address the items in question #9 below to determine the worst case operating state of this device. If the provided cable produces more power then it must be used. If it produces the same power then it can be used. If it produces less power then it must not be used and a different shorter cable (<12 inches) should be used.

If the clip is provided with the device, please address it in the application.

Best regards,

Chris Harvey
charvey@ieee.org
410-750-0860

From: SunHee Kim (HCT) [mailto:alondra@hct.co.kr]
Sent: Wednesday, November 19, 2008 7:31 PM
To: Chris Harvey; lucy.tsai@ccsemc.com; 'chris.harvey@ccsemc.'
Subject: Re: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

Hello Chris,

I understand all the situation.

I have one more problem.
The supplied cable length is over 50 cm.

Is it available to perform with this long cable if we indicate the statement that the user have to use the supplied cable to comply the FCC RF Exposure requirement in the User Manual?
Or should we test with the short (less than 12") cable even if it isn't a bundle cable?

And as for Screeen Balt-clip, we didn't evaluated with this clip.
We'll revise the User manual the users to remove this clip when using the USB dongle directly in a USB port.

Finally, we decide to re-measure the testing according to the new requirement.
Please understand this situation.

Thank you for your support.

Best Regards,

SunHee Kim

----- Original Message -----
From: Chris Harvey
To: 'SunHee Kim (HCT)' ; lucy.tsai@ccsemc.com ; 'chris.harvey@ccsemc.'
Cc: 'alondra' ; 'nwkang (HCT)'
Sent: Thursday, November 20, 2008 12:50 AM
Subject: RE: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

SunHee, I am not allowed to deviate from FCC policy. Even though the exact statements of Styrofoam did not get published until recently, the policy of not allowing the EUT holder to cover the EUT for testing has been in place from the beginning of SAR testing. The Styrofoam statement from the FCC is just a clarification of what that meant for the small dongle devices.

As for the multiple position testing directly connected to the host, any interpretations of acceptance outside of FC policy must come from the FCC. Their stated policy is at least Horizontal-up and one vertical directly connected to the host, with short cable allowed for all other required positions. I would need an interpretation from FCC for any deviation to that policy, and that may take several days.

Please be sure to include the power measurement comparison with and without cable in the revised SAR report.

I hope you understand the situation.

Best regards,

Chris Harvey
charvey@ieee.org
410-750-0860

From: SunHee Kim (HCT) [mailto:alondra@naver.com]
Sent: Wednesday, November 19, 2008 10:35 AM
To: Chris Harvey; lucy.tsai@ccsemc.com; chris.harvey@ccsemc.
Cc: alondra; nwkang (HCT)
Subject: Re: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

Hi Chris,

I agree your comment that USB dongle should be tested connected directly to the host computer according to the TCBC workshop documents.

But, Actually I can't find the exact statement this statement in the KDB 447498.
So it seems that the TCBs have the different view in this issue.

Anyway, according your advice, I'll re-measure the EUT connected directly to the host device in the max SAR value configuration.
Please confirm if it is okay. Or should we have to perform all the possible position?
Actually the Power is almost same with cable and without cable.

As for the holster, the styrofoam wasn't mentioned in the KDB447498.
I found this requirement in the TCBC conference call document issued on Nov.15.

Therefore, I'd like to get your confirm that we don't need to re-measure these testing since this policy wasn't effect before testing.

If you have more comments, please let me know.

Best Regards,
SunHee Kim

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

From: Chris Harvey
To: 'SunHee Kim (HCT)' ; charvey-tcb@ccsemc.com
Cc: 'Mike Kuo' ; lucy.tsai@ccsemc.com ; chris.harvey@ccsemc.com
Sent: Wednesday, November 19, 2008 11:23 AM
Subject: RE: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

SunHee, the notice from the FCC on November 15 is a summary of the recent policies, and is not intended to be a new policy. Therefore it is a policy that was in effect before your testing was performed. The policy is that all possible configurations for the USB ports that provide a maximum of 0.5cm separation be tested directly connected to the host computer. The policy states:

The typical Horizontal-up USB connection, found in the majority of laptop computers, must be tested using an appropriate laptop computer. A laptop with either Vertical-front or Vertical-back USB connection should be used to test one of the vertical USB orientations. If laptop computers are not available for testing the Horizontal-down or the remaining Vertical USB orientation, a short, high qualify USB cable (12 inch or less) may be used for testing these other orientations. It should be ensured that the USB cable does not affect device radiating characteristics and output power of the dongle.

When the cable is used, the USB Dongle should be on/in Styrofoam so that the holder does not impact the testing.

I hope this is helpful.

Best regards,

Chris Harvey
charvey@ieee.org
410-750-0860

From: SunHee Kim (HCT) [mailto:alondra@hct.co.kr]
Sent: Tuesday, November 18, 2008 8:30 PM
To: charvey-tcb@ccsemc.com
Cc: Mike Kuo; lucy.tsai@ccsemc.com; chris.harvey@ccsemc.com
Subject: Re: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

Hello Chris,

Thak you for your support as always.
As for SAR, the recent FCC requirement is issued on Nov. 15, 2008.
But as you know, we already performed the testing before the policy was issued.

According to the FCC requirement that the USB Dongles be tested connected directly to a host computer providing,
Is it sufficient to verify only the maximum configuration in each band instead of all the possible position?

Also, we'll re-measure the SAR with the styrofoam in the maximum configurations in each band.
Would you confirm these measurements is suffieient to explain for the below comments?

Best Regards,
SunHee Kim

----- Original Message -----
From: <charvey-tcb@ccsemc.com>
To: <alondra@hct.co.kr>
Cc: <chris.harvey@ccsemc.com>; <lucy.tsai@ccsemc.com>
Sent: Wednesday, November 19, 2008 4:02 AM
Subject: Cal-Comp Electronics & Communications Company Limited, FCC ID: US7-A600, Assessment NO.: AN08T8595, Notice#1

> Dear Sun Hee Kim,
>
> You are listed as the Technical Contact for the above referenced TCB application. The following items need to be resolved before the review can be continued:
>
> 1. The FCC requires that the person submitting and signing applications must be the contact of record in the FCC database or specifically authorized by that person. The contact of record for Cal-Comp is jack Kuo, but the letters are signed by Sean Chen. Please have Jack Kuo authorize Sean Chen to submit the application and exhibits.

==> We attached the revised relavant documents.
Please find the attachment files. <File Name: C_STC Letter_A600, B_Authorization letter_A600>

> 2. The test setup photos (and SAR test description on page 15) show that all orientations of the USB Dongle were tested at 0.5 cm separation connected to the host through a cable. The FCC requires that the USB Dongles be tested connected directly to a host computer providing <= 0.5 cm separation for all orientations unless some of the orientations are not available on a host. The following is the recent FCC summary of the policy:
>
> FCC: "The following is the typical info we have been providing to grantees, manufacturers and test labs with similar questions on USB dongle transmitters. Please also note that these procedures are intended for USB with internal antennas. If the dongle has a built-in external antenna or one that can swivel, there could be more than 4 orientations that might require testing. If the USB connector on the dongle can swivel, there are also other conditions that need consideration.
>
> FCC: "SAR compliance test considerations: Test all USB orientations (Horizontal-up, Horizontal-down, Vertical-front, and Vertical-back) with a device to phantom separation distance of 5 mm or less, according to KDB 447498 requirements. Proper laptop computers should be used because certain older laptops could be too thick for testing USB dongles. The same test separation distance should be used for all frequency bands and modes in each USB orientation; that is, the frequency band with the highest SAR dictates the test distance in each orientation. The typical Horizontal-up USB connection, found in the majority of laptop computers, must be tested using an appropriate laptop computer. A laptop with either Vertical-front or Vertical-back USB connection should be used to test one of the vertical USB orientations. If laptop computers are not available for testing the Horizontal-down or the remaining Vertical USB orientation, a short, high qualify USB cable (12 inch or less) may be
> used for testing these other orientations. It should be ensured that the USB cable does not affect device radiating characteristics and output power of the dongle. These test orientations are intended to cover the exposure conditions found in typical laptop computers with either horizontal or vertical USB connector configurations at various locations of the laptop computer. Depending on the design of an individual dongle, if the antenna is not located at the very end of the dongle or there are no other swiveling mechanisms that could increase the exposure potential, the tip of the dongle typically would not require SAR testing. Dongle tip testing is generally determined by the design of the individual device."
>
> FCC: "Because USB dongles have a rather small footprint, smaller SAR scan resolutions may be necessary, as compared to the typically larger resolutions used for cell phones, to keep the uncertainty of the interpolation and extrapolation algorithms at an acceptable level. In most cases, the dongle will need to be embedded in several cm of Styrofoam to avoid perturbation due to the device holder clamps. For swivel connectors or antennas, the test orientations and configurations will need to be considered on a case-by-case basis because there could be various swiveling combinations and locking mechanisms involved that can affect test considerations."
>

==> Please find the attached SAR Report.

> 3. The internal photographs show what appears to be a modified flexible antenna with a small piece cut off. If this is the RF Tx antenna, please explain how the production antennas will be modified in the same manner to maintain the same antenna characteristics to the one on the test sample.

==>The flexible antenna(secondary antenna) is receive-only , not TX antenna. Please find the attached Internal Photos.

>
> 4. Also, the SAR testing appears to have been performed with the device surrounded by the holder and not embedded in Styrofoam as suggested by the FCC.
= = > Please find the attached SAR Report.

> 5. The RF test report indicates AWS operation at the high channel of 1753.75 MHz, but the Operational Description states 1174.25 MHz. Please confirm the actual operating frequency and update any exhibits that contain incorrect information.
= = > Please double-check the Operational Description. We can not find this.
>
> 6. The RF test report states that this device is PCE equipment class, but the operation would imply that this should be PCB equipment Class, since it is not intended to operate near the Ear, but could operate in a near-body configuration. Please confirm the actual Equipment Class and update any exhibits that contain incorrect information.
= = > Please find the revised RF Test Report.
>
> 7. Please confirm that the SPDT and SP4T switches shown in the Block Diagram can not be configured to transmit from both the Primary and Secondary antennas, and whether the secondary antenna is receive-only.
= = > The secondary antenna is receive-only, Primary is Rx and TX antenna.
>
> 8. The Users Manual provides the following statements about body-worn operation which need to be changed to reflect that this device can be used near the body in laptop computer USB connectors:
>
> Manual: "This device was tested for typical body-worn operations with the back of the phone kept 0.5 cm between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.5 cm must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters, and similar accessories containing metallic components should not be used. Body-worn accessories that cannot maintain 0.5 cm separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided."
> "The highest SAR value for this model phone when tested for use at the when worn on the body, as described in this user guide, is Max 1.16 mW/g."
> Please change the above wording to refer to this device as a modem (not phone) and describe USB Connector near-body operation and testing.
>
= = > Please find the revised User Manual page on 40 & 41.

> 9. The Manual indicates that the use of the USB Y-cable will increase RF performance by connecting to 2 USB ports. Please confirm that this USB Y-cable was used to operate this unit in the highest RF performance capability for both RF and SAR testing. Please also provide a comparison of RF power with and without the USB Y-cable.
= = > We confirm that this USB Y-cable was used to operate this unit in the highest RF performance capabilitiy for both RF and SAR testing.
Please find the revised RF and SAR reports.
> 10. The Users Manual describes a clip used to clip the USB Dongle to the top of an LCD screen. Does this clip contain metal? Since there is no notice to the users to remove this clip when using the USB dongle directly in a USB port, was this clip evaluated during the SAR measurements?
= = > The direct-connection to the host device or using USB cable is general position for using this modem.
If we use LCD-clip, we have to use the USB cable.
Therefore, I think this can be explained by using the USB cable connection configurations.
>
> 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

>
>
>