

Chris Harvey

From: Christine Vu [christine.vu@ccsemc.com]
Sent: Tuesday, August 19, 2008 8:38 PM
To: Chris Harvey
Cc: Mike Kuo
Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007
Attachments: HB92Antenna ColoInfoRequest0718 (3).xls; ACON Diaz WLAN_Regulatory_File_20060609.pdf; ACON Paltrow WLAN_Regulatory_File_9700717 Rev 04 Atheros form.doc; WNC_Roberts WLAN_Regulatory_File_Broadcom.pdf; FCC confidential-long and short term.pdf

Hi Chris:

See the client's (CY) response below inline of your latest email. Again, hopefully this has addressed the reviewer's question. Pls confirm. Thanks, CK

1. I review the responses please see that the BT365 is listed in the attached exhibit. Please revise this attached exhibit if it is not correct.

[Caroline Yu] Please use the last attachment provided instead. The file with BT365 was from a long while ago, and was updated.

2. OK, I see that the Excel Spreadsheet sent in the last e-mail is the replacement for the incorrect exhibit. I will remove the original exhibit and replace it with the spreadsheet.

3. You indicate that all the antenna separation information is in the datasheets, but the only information is in the AT4 Wireless MPE report for Jolie. There is no other information that I can find. Please re-submit this information.

[Caroline Yu] Please find the antenna datasheet attached. Antenna info need to be kept confidential.

4. Do I understand you to say that the Diaz has portable transmitter and thus is not included in this application? In order to evaluate the co-location of Mobile and portable together, there must be clear compliance information about this configuration.

[Caroline Yu] Diaz's WLAN antenna is on the lower part of the screen and hence was evaluated for SAR for portable category. However, it also has co-located transmissions. Shouldn't it be also evaluated to remove the co-located restriction?

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

From: Christine Vu
Sent: Tuesday, August 19, 2008 4:57 PM
To: 'Chris Harvey'
Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Well understand.

Will forward to the client now.

Thanks,
CK

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

From: Chris Harvey [mailto:charveyemc@gmail.com] **On Behalf Of** Chris Harvey
Sent: Tuesday, August 19, 2008 4:51 PM

To: Christine Vu

Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Yes, please have either the client or authorized representative respond to the concerns.

Thanks,

Chris

From: Christine Vu [mailto:christine.vu@ccsemc.com]

Sent: Tuesday, August 19, 2008 7:32 PM

To: Chris Harvey

Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Hi Chris:

Pls confirm if the client is to reply to all of these concerns:

I review the responses please see that the BT365 is listed in the attached exhibit. Please revise this exhibit if it is not correct.

OK, I see that the Excel Spreadsheet sent in your last e-mail is the replacement for the incorrect exhibit. I will remove the original exhibit and replace it with the spreadsheet.

You indicate that all the antenna separation information is in the datasheets, but the only information is in the AT4 Wireless MPE report for Jolie. There is no other information that I can find. Please re-submit this information.

Do I understand you to say that the Diaz has portable transmitter and thus is not included in this application? In order to evaluate the co-location of Mobile and portable together, there must be clear compliance information about this configuration.

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

From: Chris Harvey [mailto:charveyemc@gmail.com] **On Behalf Of** Chris Harvey

Sent: Tuesday, August 19, 2008 4:27 PM

To: 'Chris Harvey'; Christine Vu

Cc: Mike Kuo

Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

OK, I see that the Excel Spreadsheet sent in your last e-mail is the replacement for the incorrect exhibit. I will remove the original exhibit and replace it with the spreadsheet.

You indicate that all the antenna separation information is in the datasheets, but the only information is in the AT4 Wireless MPE report for Jolie. There is no other information that I can find. Please re-submit this information.

Do I understand you to say that the Diaz has portable transmitter and thus is not included in this application? In order to evaluate the co-location of Mobile and portable together, there must be clear compliance information about this configuration.

Please let me know if you have any further questions.

Best regards,

Chris Harvey

From: Chris Harvey [mailto:charvey@ieee.org]

Sent: Tuesday, August 19, 2008 7:20 PM

To: 'Christine Vu'

Cc: 'Mike Kuo'

Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Christine, as I review the responses please see that the BT365 is listed in the attached exhibit. Please revise this exhibit if it is not correct.

Thanks,

Chris

From: Christine Vu [mailto:christine.vu@ccsemc.com]

Sent: Tuesday, August 19, 2008 6:32 PM

To: Chris Harvey

Cc: Mike Kuo

Subject: FW: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Hi Chris:

See the client's (CY) response below inline of your email. Hopefully this has addressed the reviewer's question. Pls confirm. Thanks, CK

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:

This application documents that there are 5 Dell Host computers into which this WLAN (2x2 MIMO) module will be installed, indicating that the installations will maintain a 20 cm separation between the antennas and the user's body. However in the AT4 Wireless MPE report (for platform Jolie), the MIMO antenna (presumed to be for this transmitter) is only 27.82mm (2.782cm) from the bottom of the laptop, which would require SAR compliance. There are lists of the possible co-location transmitters that can also be installed in each of the host computers.

CY: AR5BHB92 is 2x2 radio, and only main and aux antennas are connected. MiMO antenna is not used to connect the radio device.

3 MPE reports have been submitted, one for Platform Jolie (PP17S), one for Platform Hepburn (PP33L) and one for Platform Pacino (PP31L). No documentation has been submitted for Platforms Paltrow (PP35L) and Diaz (PP24L).

The Dell Cover Letter does not list the BT365 radio FCC ID: QDS-BRCM1033 as an option, but the list on the Antenna Co-location table lists this radio as the highest power Bluetooth radio installed in these platforms.

CY: Please advise where BT365 was mentioned. I think we listed BT370 as the highest power BT, didn't we? see attached. Since only one of each BT or WWAN/UWB will be use in a platform, not all, we use the report that represented the highest power of each WWAN and BT/UWB with a WLAN card of higher power than that of HB92 for assessment As a resule, once the calculation is good, it covers all.

It is not clearly stated that all 5 host platforms will use each of these simultaneously transmitting antennas in 'Mobile RF Exposure'

configurations. If there is a mixture of Mobile and Portable transmitters, this has not been addressed in this application.

CY: This application intends to address only co-location concern Except for Diaz, all WLAN main/aux antennas of all platforms are on top rim of the screen with more than 20cm to human body. of mobile configuration. Diaz has already been evaluated for portable configuration. with approval grant. Please attached the Diaz grant if you feel necessary.

Please clarify the antenna locations with respect to each other and the user for each of these platforms (typically submitted as a photograph with graphics overlay or by drawing). Please submit documentation in accordance with FCC KDB 447498, Mobile and Portable RF Exposure, that clearly shows RF Exposure compliance for the co-located, simultaneous transmitting antennas.

CY: All antenna location info are on the submitted datasheets.

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

From: Caroline Yu [mailto:caroline.yu@Atheros.com]

Sent: Tuesday, August 19, 2008 3:00 PM

To: Christine Vu

Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Chris:

See my response below inline of your email:

I hope this has addressed the reviewer's question.

Thanks

Caroline Yu
Atheros Communications
5480 Great America Parkway
Santa Clara, CA 95051
USA

+1 (408) 830 5751

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

From: Christine Vu [mailto:christine.vu@ccsemc.com]

Sent: Tuesday, August 19, 2008 2:25 PM

To: Caroline Yu

Subject: FW: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BHB92-D, Assessment NO.: AN08T8222 & AN08T8223, Notice#1 08U12007

Importance: High

Hi CY:

Please address and reply the TCB questions below. Thanks, CK

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:

This application documents that there are 5 Dell Host computers into which this WLAN (2x2 MIMO) module will be installed, indicating that the installations will maintain a 20 cm separation between the antennas and the user's body. However in the AT4 Wireless MPE report (for platform Jolie), the MIMO antenna (presumed to be for this transmitter) is only 27.82mm (2.782cm) from the bottom of the laptop, which would require SAR compliance. There are lists of the possible co-location transmitters that can also be installed in each of the host computers.

CY: AR5BHB92 is 2x2 radio, and only main and aux antennas are connected. MIMO antenna is not used to connect the radio device.

3 MPE reports have been submitted, one for Platform Jolie (PP17S), one for Platform Hepburn (PP33L) and one for Platform Pacino (PP31L). No documentation has been submitted for Platforms Paltrow (PP35L) and Diaz (PP24L).

The Dell Cover Letter does not list the BT365 radio FCC ID: QDS-BRCM1033 as an option, but the list on the Antenna Co-location table lists this radio as the highest power Bluetooth radio installed in these platforms.

CY: Please advise where BT365 was mentioned. I think we listed BT370 as the highest power BT, didn't we? see attached. Since only one of each BT or WWAN/UWB will be use in a platform, not all, we use the report that represented the highest power of each WWAN and BT/UWB with a WLAN card of higher power than that of HB92 for assessment As a result, once the calculation is good, it covers all.

It is not clearly stated that all 5 host platforms will use each of these simultaneously transmitting antennas in 'Mobile RF Exposure' configurations. If there is a mixture of Mobile and Portable transmitters, this has not been addressed in this application.

CY: This application intends to address only co-location concern Except for Diaz, all WLAN main/aux antennas of all platforms are on top rim of the screen with more than 20cm to human body. of mobile configuration. Diaz has already been evaluated for portable configuration. with approval grant. Please attached the Diaz grant if you feel necessary.

Please clarify the antenna locations with respect to each other and the user for each of these platforms (typically submitted as a photograph with graphics overlay or by drawing). Please submit documentation in accordance with FCC KDB 447498, Mobile and Portable RF Exposure, that clearly shows RF Exposure compliance for the co-located, simultaneous transmitting antennas.

CY: All antenna location info are on the submitted datasheets.

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.