

## Chris Harvey

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**From:** Annie Cheng (鄭佩瑛) <Annie@sporton.com.tw>  
**Sent:** Wednesday, May 18, 2011 4:18 AM  
**To:** charvey-tcb@ccsemc.com  
**Cc:** charvey@ieee.org; claire.hoque@ccsemc.com; Willy Chen (陳立)  
**Subject:** RE: Atheros Communications, Inc., //PPD-ARS42 //AN11T0266 Notice #1  
**Importance:** High

Dear Chris,

Please kindly refer to our reply below (combined with Caroline's reply dated May 5th):

All updated document was uploaded to CCS website, as shown below ↓

### ARS42

File Upload Result		
Upload	File Name	Size in Bytes
OK	ARS42_cvrltr_Modular Approval Letter_update.pdf	27715 bytes
OK	ARS42_LabelSmpl_update.pdf	57501 bytes
OK	ARS42_Portable Module OEM installation instructions.pdf	116871 bytes
OK	ARS42_RFExp_update.pdf	1001529 bytes
OK	ARS42_TestRpt_DTS_update.pdf	2973242 bytes
OK	ARS42_TestRpt_NII_update.pdf	2528901 bytes
OK	ARS42_UserMan_update.pdf	2082162 bytes

### ARS42-SB

File Upload Result		
Upload	File Name	Size in Bytes
OK	ARS42-SB_cvrltr_Modular Approval Letter_update.pdf	28594 bytes
OK	ARS42-SB_LabelSmpl.pdf	63152 bytes
OK	ARS42-SB_Portable Module OEM installation instructions.pdf	118116 bytes
OK	ARS42-SB_RFExp_update.pdf	1006296 bytes
OK	ARS42-SB_TestRpt_DSS_update.pdf	3326316 bytes
OK	ARS42-SB_TestRpt_DTS_update.pdf	2182948 bytes
OK	RS42-SB_UserMan_update.pdf	2121219 bytes

Best Regards,  
Annie Cheng

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

From: charvey-tcb@ccsemc.com [mailto:charvey-tcb@ccsemc.com]

Sent: Wednesday, May 04, 2011 4:52 AM  
To: Roy Wu (吳瑞源); Annie Cheng (鄭佩瑛)  
Cc: charvey@ieee.org; claire.hoque@ccsemc.com  
Subject: Atheros Communications, Inc., //PPD-ARS42 //AN11T0266 Notice #1

Dear Roy and Annie,

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 Modular Approval Letter states that this device was tested installed in host device and does NOT have its own shielding. The Test Setup seems to have the EUT tested on an extender board outside of the host with the antennas mounted on a block and the EUT photos show RF shielding. Please confirm if there is shielding and how the device was tested and update the letter accordingly.

**{Sporton} Please find the modular approval letter provided by Caroline as uploaded today.**

2. The Label exhibit shows the FCC ID Label that will be placed on the module. Please also provide the label that will be placed on the outside of the host computer indicating that the host contains this module.

**{Sporton} Please refer to the label sample uploaded today.**

3. The JBP Class B Computer Peripheral test report has been submitted in these applications so I have included the Equipment Class JBP on the application form. Please inform me right away if you do not intend to get JBP approval and will pursue DoC approval instead.

**{Sporton} JBP approvals are needed for both ARS42 and ARS42-SB.**

4. The DTS test report page 10 of 132 states: "The worst case position is Y-axis, only data from Z-Axis was recorded in this report." Is this a typo?

**{Sporton} Sorry for the typo. DTS reports are uploaded to your website today.**

5. The User's Manual supplied in this application has an RF Exposure requirement to install the antenna so it maintains a 20cm separation to the user, BUT the testing for RF Exposure has been performed with a 2.0 cm worst case separation.

**{Sporton} Please find the revised User Manuals uploaded to your site.**

6. The DTS and NII test reports indicate that beam-forming is incorporated, but the DFS report calls this a WLAN 1Tx, 2Rx device. Also, the Block Diagram and Schematics seem to show one antenna dedicated to BT (Bluetooth) and one for ALL other transmissions. The Operational Description exhibit does not mention Beam Forming. How does this device perform Beam Forming with only one transmit antenna? Please confirm and update all exhibits as necessary. If this device has Beam Forming, please provide the Beam Forming antenna installation and positioning/spacing requirements.

**{Sporton} Both DTS and NII reports are modified accordingly. Please find them uploaded today.**

7. The SAR report indicates on page 7 of 32 that the WLAN and BT share the same antenna. This does not seem to agree with the Block Diagram and Schematics which seem to show a separate BT antenna. Please explain.

**{Sporton} Please find the updated SAR reports uploaded today.**

8. The SAR report only documents the EBJ antenna model and does not mention or test the ED4 antenna Model. The DTS report only documents the EBJ antenna. The NII report only documents the ED4 antenna. The DFS report documents both the ED4 and EBJ antennas. This does not seem to be explained or justified in the application.

*{Caroline} We always use EBJ for modular SAR testing. As SAR is evaluated at near field, max far field gain antenna may not represent the worst case near field SAR result, using EBJ should be acceptable for all bands*

9. The DTS report indicates the Maximum Power Output Measurement Limits of 27.63dBm but does not indicate where this limit came from. Please explain this power limit. Does it have something to do with the antenna gain?

**{Sporton} DTS reports have been updated with modified limit and uploaded to CCS website today.**

10. The Industry Canada application has not yet been reviewed since there are several items that need to be clarified/corrected in this application. Please address these same items for the IC application (AN1113847) and update those exhibits so that they can be reviewed. Additionally, the items that are applicable to the Single Band version filed under AN11T0267 and AN1113848 should also be corrected before that review.

**{Sporton} Since FCC and IC share reports, we will upload twice to each CCS attestation number.**

**Please kindly inform us if further questions occur with above updated documents. Thanks in advance.**

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. Revised documentation should not be emailed, but instead should be submitted through "Add Attachment" function at the UL-CCS website. Please have your Assessment Number and FCC ID/IC Certification number handy. You may use the following link: <https://cert.ccsemc.com/filing/>

Best regards,

Chris Harvey  
Charvey-tcb@ccsemc.com

台灣地區耕興顧客滿意專線 (Sporton Taiwan Customer Service):0800-800005

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