

**Doug Noble**

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**From:** Stuart Nicol [stuartn@aprel.com]  
**Sent:** Thursday, October 15, 2009 8:20 AM  
**To:** Arthur Brennan  
**Cc:** Doug Noble  
**Subject:** RE: FCC Equipment Authorization System

Art,

The following comment should be enough for the distance issue.

- WWAN may or may not be provided but in this case there is 27.2cm separation distance between WLAN Main and WWAN Main. Since the WWAN is the predominant transmitter in past history the WWAN supplier updates their filing with the WLAN info.

If this needs further clarification please let me know. As we did not touch the WWAN it is difficult for me to provide any further statements.

Cheers,  
Stuart.

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**From:** Arthur Brennan  
**Sent:** October 15, 2009 11:15 AM  
**To:** Stuart Nicol  
**Subject:** FW: FCC Equipment Authorization System

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**From:** Doug Noble [mailto:[doug@atcb.com](mailto:doug@atcb.com)]  
**Sent:** October 15, 2009 11:14 AM  
**To:** Arthur Brennan  
**Subject:** RE: FCC Equipment Authorization System

I thought we were waiting on something from Dell about the distance between transmitter or something like that?  
Could you ask Stuart?

Thanks,  
Doug

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

**From:** Arthur Brennan [mailto:[artb@aprel.com](mailto:artb@aprel.com)]  
**Sent:** Thursday, October 15, 2009 8:01 AM  
**To:** Doug Noble  
**Cc:** Stuart Nicol; Hackett, Steven C  
**Subject:** FW: FCC Equipment Authorization System

Doug,  
Steve sent this earlier (letter and manual), and the amended SAR reports from Stuart. Isn't that everything ?  
Art

**From:** Hackett, Steven C [mailto:[steven.c.hackett@intel.com](mailto:steven.c.hackett@intel.com)]  
**Sent:** October 9, 2009 2:02 PM  
**To:** Stuart Nicol; [doug@atcb.com](mailto:doug@atcb.com); Arthur Brennan  
**Subject:** RE: FCC Equipment Authorization System

Hi Doug,

For item 1 the user guide is attached. For item 4 I attached an attestation letter.

For item 3 I assume we agree it's the antenna datasheets that may be creating some confusion. So a couple points to make:

- the datasheet covers a couple different Dell configurations and is why it shows three WLAN Tx antennas and two WWAN antennas. In this specific filing the WLAN is a 1x2 configuration so Tx1 is the only transmit antenna used. Antenna labeled Tx2 is receive only and Tx3 is not used.
- WWAN may or may not be provided but in this case there is 27.2cm separation distance between WLAN Main and WWAN Main. Since the WWAN is the predominant transmitter in past history the WWAN supplier updates their filing with the WLAN info.

This filing is only for the 1x2 WLAN so I'm not sure what needs to be provided in response to this item. The list of antennas specific to this filing would just be the Tyco & Amotech main and aux antennas.

Regards,..Steve

*Steve Hackett*  
Wireless Regulations Engineer  
Intel Mobile Wireless Group  
TEL: 803-216-2344  
CELL: 803-315-6704  
[steven.c.hackett@intel.com](mailto:steven.c.hackett@intel.com)

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**From:** Stuart Nicol [mailto:[stuartn@aprel.com](mailto:stuartn@aprel.com)]  
**Sent:** Thursday, October 08, 2009 4:13 PM  
**To:** [doug@atcb.com](mailto:doug@atcb.com); Arthur Brennan  
**Cc:** Hackett, Steven C  
**Subject:** RE: FCC Equipment Authorization System

Doug,

Please see the updated SAR reports.

Due to the low SAR I let it drop off but I have now included the appropriate MIMO tables in the results section along with an explanation for the Tx1+Tx2 (Antenna Chain A+B) on pages 3 and 4.

Cheers,  
Stuart.

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**From:** Doug Noble [mailto:[doug@atcb.com](mailto:doug@atcb.com)]  
**Sent:** October 7, 2009 1:38 PM  
**To:** Stuart Nicol; Arthur Brennan  
**Cc:** 'Marianne Bosley'  
**Subject:** FW: FCC Equipment Authorization System

Hi Stuart and Art,

We received this from the FCC today. Please address this and send us your(Dell's) answers to the requests.

Thank you,  
Doug

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

**From:** oetech@fccsun27w.fcc.gov [mailto:oetech@fccsun27w.fcc.gov]

**Sent:** Wednesday, October 07, 2009 10:27 AM

**To:** hotline

**Subject:** FCC Equipment Authorization System



### Office of Engineering and Technology

**To:** William Graff,  
[Hotline@atcb.com](mailto:Hotline@atcb.com)  
**From:** Carlos Bonilla  
[Carlos.Bonilla@fcc.gov](mailto:Carlos.Bonilla@fcc.gov)

**Re: FCC ID:** E2K512ANHMW

**Applicant:** Dell Inc.  
**Correspondence Reference Number:** 75647  
**Form 731 Confirmation Number:** TC278582  
**Date of Original E-mail:** 10/07/2009

1) OEM installation and user operating requirements need to be documented in the filing 2) 802.11 MIMO antennas are to be tested at 100% duty factor transmitting simultaneously, where is this documented? 3) Please submit a list of all antennas installed and address applicability of simultaneous transmission testing and separation distance according to KDB publication 616217-DO1. 4) Please submit an attestation statement for ad-hoc functionality. Ad-hoc is not allowed for client devices in 5 GHz DFS band.

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 pursuant to Section 2.917(c).

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