-----Original Message-----
From: Mike Kuo
Sent: Sunday, September 15, 2002 8:54 PM
Subject: RE: FCC grant of DWL-AB520 (PC22 802..11a/b PCI Adapter)

Hi Alex:

Reply to Question #1: O.K.

Reply to Question #2: By reviewing the photo attached with your reply, the external antenna construction complied with integral antenna requirement. I will not ask for epoxy to be applied on the connectors. No more issue for Question #2.
[alex 02-0917] Thanks!

Reply to Question #3: Please provide a photo to show how the internal antenna will be installed on the computer chassis. Will it be in front of computer chassis or on the back of computer chassis? Please provide internal antenna instruction which is similar to the external antenna instruction which you already provided.
[alex 02-0917] Please refer to page 6 and 7 in the revised user manual.

(See attached file: DWLAB520 Manual 0917.doc)

Reply to Question #4: Awaiting your reply.
[alex 02-0917] Please refer to the letter.

(See attached file: letter 0916.pdf)

Reply to Question #5:Awaiting your reply.
[alex 02-0917] Please refer to page 6 and 7 in the revised user manual

Reply to Question #6:Awaiting your reply.
[alex 02-0917] Please refer to page 60.

Reply to Question #7: There is no enough data provided for 802.11.g mode. This grant will not include 802.11g operation.
[alex 02-0917] Please do not apply for 11g grant

Reply to Question #8: Steve Cheng already provided the MPE estimate.

Reply to Question #9: Awaiting your reply.
[alex 02-0917] Please refer to page 64

Best Regards

Mike Kuo

-----Original Message-----
From:
Subject: RE: FCC grant of DWL-AB520 (PC22 802..11a/b PCI Adapter)

Hi Mike,

Below are my answers.

Question #1: Please provide antenna specifications for Two Internal antennas and one External antenna.

[alex] Please refer to the attached files.

(See attached file: ph2450m5250u5800ua.pdf)(See attached file: cbl2450u5250u5800ua1.pdf)(See attached file: FHF-618-120-1.zip)

Question #2: Per 15.407(d) integral antenna requirement for device operates in 5.15-5.25GHz band and by referencing the user manual provided, this device will be sold to retail store with one external antenna connected to the device. Even though this device is equipped with radiall locked-type antenna connectors, it is not complied with integral antenna requirements. FCC defines the integral antenna requirement is " antenna that attaches with a connector inside of the case is acceptable, provided that there is no need for the user to ever open the case."

Once this device is sold to the end user, the antenna connectors are exposed. In order to comply with integral antenna when this device is sold with one external antenna to the end user, FCC will accept " Permanent epoxy or permanent loctite or even soldering the connection(s) "

If epoxy or permanent loctite will be used, please provide the type of material will be applied on the antenna connector.

[alex] Please refer to the photo attached. Besides the locked-type Radiall connector, the antenna cable is fixed permanently on the metal bracket using the thermosetting tube and glue. The end user is difficult to replace the alternative antenna. So, it is integral antenna. If you still insist the expoxy and loctite on antenna connector is needed, I will consult the mechanical engineer and reply which type of material by 9/16.

(See attached file: PCBA +joymax antenna.JPG)

Question #3: When this device is equipped with internal and external antennas, this device and its antennas will be installed by D-Link or D-link authorized OEM dealer. Grant will indicate professional installation is required. When professional installation is required, you are not required to put epoxy or permanent loctite on the connector.

Please provide installation instruction to install internal and external antennas in a typical computer.

[alex]
For external antenna, please refer to the QIC.
1. Remover the back cover of the computer
2. Install the DWL-AB520 PCI Adapter carefully and firmly into an available PCI slot.
3. Pass the wireless antenna through the hole on the back panel
4. Secure the screw and replace the computer cover
5. Put the antenna into the antenna stand

For internal antenna, the installation instruction as follows and performed by D-Link authorized OEM company at factory.

1. Remove the back cover of the computer.
2. Install the DWL-AB520 PCI Adapter carefully and firmly into an available PCI slot.
3. The internal antenna has been installed and attached on the computer chassis.
4. Find the internal antenna plug in the computer chassis.
5. Insert this internal antenna plug carefully and firmly into the receptacle on the DWL-AB510 PCI Adapter.
6. Replace the computer's cover.

Question #4: Attached please find the setup photo. In this setup photos, modifications have been made with copper tape. Please submit a modification report signed by the applicant to agree such modification will be incorporated each unit sold in the U.S. and provide information on how to incorporate this modification into the final product.

[alex] Will reply to you on 9/16.

Question #5: Please provide user manual for device with one internal and one external antenna configuration.

[alex] Will reply to you on 9/16

Question #6: The user manual file (DWLAB520) is used for one external antenna (as indicated in the user manual). However, page 79 of user manual indicates that there are two diversity antenna with 1.5dBi. Antenna gain information does not agree with the test report (Internal :3.25dBi and External :4dBi Gain). Please explain.

[alex] Consider the cable loss, the actual antenna gain is around 1.5dBi or below.
We will give you a update for the user manual for Question #5 and #6 on 9/16 Taiwan time.

Question #7: Per technical description submitted. This device is capable of operating 802.1 a/b/g mode and the antenna gain is 3dBi gain. The test report submitted only indicated this device can operate with 802.11 a/b mode and there is no data support for 802.11 g operation. Please explain.

[alex] After talking to Steve Chen, we do not apply for 11g grant due to lacking of test report with PH-tyep antenna under 11g mode. By copy to Steve, is it correct?

Question #8: Please provide MPE estimate

Question #9: There is no RF exposure statement in the user manual. Please provide revised user manual.
[alex] Will give you the updated manual on 9/16.

regards,

alex,

Alex Lei
R&D Division

-----Original Message-----
From: CERTADM
Sent: Friday, September 06, 2002 6:42 PM
To: 'mkuo@ccsemc.com'
Subject: D Link Corporation, FCC ID:KA22002080002-1, AN02T2203 (UNII), AN02T2202(DTS)

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FCC defines the integral antenna requirement is " antenna that attaches with a connector inside of the case is acceptable, provided that there is no need for the user to ever open the case."

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If epoxy or permanent loctite will be used, please provide the type of material will be applied on the antenna connector.

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Please provide installation instruction to install internal and external antennas in a typical computer.

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Best Regards

Mike Kuo / TCB Certifier

(See attached file: modification photos.pdf)