

From: Mike Kuo
Sent: Monday, April 28, 2003 3:47 PM
To: 'Lucy'; Mike Kuo
Cc: james_lee@cclab.com.tw; ? ??; jonson@cclab.com.tw; Shirley Kang;
Scott Wang; Harris
Subject: RE: D-Link Corporation, FCC ID:KA22002080002-2, AN03T2808 (UNII)-reply (1)

Hi Lucy:

Question #16: Per 15.407(d) integral antenna requirements for UNII in 5.15-5.25GHz band, the internal antenna can not be sold to end user and allow end user to perform installation. Please address the following issues :

- a. Internal antenna can only be installed by the OEM or authorized OEM installer, end user installation is prohibited. Please have the applicant to issue a cover letter to state that the PCI card with internal antenna will not be sold to the end user and only will be installed by the OEM or authorized OEM installer.
- b. Will Internal and external antennas to be co-exist on one PCI card ?
- c. The internal antenna installation instruction should not be part of user manual since the end user installation is prohibited. Please confirm that internal antenna installation instruction will not be provided to the end user.

Question #17: Page 27 of revised UNII test report: both tabular data are for Antenna B. Please make necessary correction.

Question #18: The revised UNII test report did not address Question #10. Please indicate which method was used and justify the relation between Sweep time and T: transmission pulse duration.

Question #19: The revised UNII test report did not address Question #11, please refer to FCC public notice DA 02-2139 on the measurement procedures. The second trace shall use same instrument setting used in peak conducted transmit output power tests based upon the test method used. The second trace was created with RBW=1MHz and VBW=30kHz which does not agree with Peak conducted transmit output power measurements. Please redo the tests and submit the test data.

Question #20: Please provide justification to use the peak limits of 88.2dBuV/m and average limits of 68.2dBuV/m for non-restricted band.

Best Regards

Mike Kuo

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

From: Lucy [mailto:lucy_tsai@cclab.com.tw]
Sent: Monday, April 28, 2003 8:13 AM
To: Mike Kuo
Cc: james_lee@cclab.com.tw; ? ??; jonson@cclab.com.tw; Shirley Kang;
ScottWang; Harris
Subject: Re: D-Link Corporation, FCC ID:KA22002080002-2, AN03T2808 (UNII)-reply (1)

Dear Mike,

Below are the makeup documents for D-Link, FCC ID:KA22002080002-2 submission.

Q#1, Please check attached antenna spec.

Q#2, Please find attached "Quick install guide" for details.

Q#3, Please refer to attached "users manual-revised" for "Internal antenna installation guide" at page 37-38.

Q#4, Please refer to attached "antenna attestation statement as stated in 15-405d" for details.

Q#13 about addressing 15.407(c) requirement, please refer to attached "DWL-AG520&WPC-D11 Theory of Operation and Block Diagram updated on 28 April 2003" page 5 for details

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As for Q#12 about photo of internal antenna mounted during the test, please refer to the DTS test report, page 141 for details.

Other questions regard the UNII and DTS portions of test reports for details.

Thank you and Best Regards,

Lucy

AN03T2808 ----- Original Message -----

From: "Mike Kuo" <MKUO@CCSEMC.com>

To: "Mike Kuo" <MKUO@CCSEMC.com>; "Shirley Kang" <SKang@CCSEMC.com>; <vs@cclab.com.tw>; <james_lee@cclab.com.tw>; <ting@cclab.com.tw>

Cc: "'Lucy (E-mail)'" <lucy_tsai@cclab.com.tw>

Sent: Thursday, April 24, 2003 8:23 AM

Subject: RE: D-Link Corporation, FCC ID:KA22002080002-2, AN03T2808 (UNII)

Question #14: Please provide a photo to show where the internal antenna is mounted during the tests.

Question #15: Please provide antenna connector specification to address integral antenna requirement.

Best Regards

Mike Kuo

> -----Original Message-----

> From: Mike Kuo

> Sent: Wednesday, April 23, 2003 2:17 PM

> To: Shirley Kang; 'vs@cclab.com.tw'; 'james_lee@cclab.com.tw'; 'ting@cclab.com.tw'

> Cc: Lucy (E-mail)

> Subject: D-Link Corporation, FCC ID:KA22002080002-2, AN03T2808 (UNII)

>

> Question #1: Antenna specification PDF file is damaged and can not be opened. Please submit antenna specification file again.

>

> Question #2: In the user manual, it refer to " Quick Install Guide " for installation instruction. Please provide Quick Install Guide.

>

> Question #3: The user manual only indicate the device is using with
> external antenna. There is no place mentioned internal antenna as shown
> in the internal photos. Please provide a complete user manual to include
> all functions of the device.
>
> Question #4: Please provide detail information on how the external antenna
> and internal antenna will be connected to the PCI card and address the
> internal antenna requirement as stated in 15.407(d) of FCC rules.
>
> Question #5: Since this PCI is operating in two different rule parts.
> 2.4GHz band and 5.8GHz will be operated in the 15.247 as digital
> transmission system (DTS) and 5.15-5.35GHz band as UNII device under
> 15.407 of FCC rules. A composite device filing is required. The test
> report will be written in such way to address DTS and UNII requirement
> separately. Do not combine 15.247 and 15.407 test report into one test
> report. All required attachments will be submitted individually under
> each rule part. For this application, assessment no:AN03T2809 is used for
> DTS application and AN03T2808 is used for UNII application.
>
> Question #6: The cover page of test report indicates Industry Canada
> RSS210 as technical standard. The report is submitted for FCC
> certification. Please make necessary changes.
>
> Question #7: The antenna connector shown in the user manual does not match
> the antenna connector shown in the internal photos. Please explain.
>
> UNII portion of Test report:
>
> Question #8:Per FCC public notice DA 02-2138 (Measurement procedure for
> UNII device), the emission bandwidth "B" MHz shall be measured with
> RBW=1% of 26dB and the VBW shall be greater than RBW. The emission
> bandwidth measured in this report does not comply with this requirement.
> The VBW=RBW and RBW is not using the nearest RBW for 1% of 26dB. Please
> redo the emission bandwidth measurement by following FCC measurement
> procedures.
>
> Question #9: Page 178 of specific limits table does not match with the
> $4+\log B$ or $11+10\log B$. Please review the specific power limit table again.
>
> Question #10: Power measurement: In FCC public DA 02-2138 listed three
> acceptable procedures to measure the peak conducted transmit output power.
> Please justify which method is using when measure the output power and
> make sure to address each parameter in the method used.
>
> Question #11:Peak Excursion measurement: 13dB difference between two
> traces shall apply to entire emission bandwidth. The marker between two
> traces are positioned on the center frequency. Please examine your plots
> to make sure all the differences between two traces are $\leq 13\text{dB}$.
>
> Question #12: Page 247 of test report, at 5256.4MHz, the emission over the
> limits. Pleases address this non-compliance issue.
>
> Question #13: Please address 15.407(c) requirement. The theory of
> operation does not include technical information to address this
> requirements.
>
> Best Regards

>
> Mike Kuo
> The items indicated above must be submitted before processing can continue
> on the above referenced application. Failure to provide the requested
> information within 60 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.
>
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