American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

July 19, 2005

RE: TP-LINK Technologies Co., Ltd.

FCC ID: TE7WN55XG

After a review of the submitted information, I have a few comments on the above referenced Application.

1) Please provide information as to the antenna connection and compliance to 15.203.
2) Please clarify if you are asking for:
   a) Certification of the device as a TX, and a DoC has been performed by an appropriately accredited test lab for a PC
   b) Certification as a TX + PC

   Note 1: The option b) would be considered as a composite application and 2 certificates (one for the TX, one for the PC portion) would be issued. There are additional review costs associated with this additional certification.

   Note 2: To qualify to perform DoC applications, the test lab must be accredited by an acceptable agency and meet the requirement of 2.948(e) to perform testing under the DoC procedure and the device has additional labeling and manual requirements for the DoC. Currently labs from China do not appear as an accredited test lab on the FCC site under 2.948(e). Please explain as necessary.

   Note 3: Note that for DoC tests, the device is configured with a minimum test configuration as specified by ANSI C63.4 which includes complete computer + 2 I/O devices attached (one may be the EUT).

   Note 4: For the remaining part of this current review, it is assumed that the device is being approved under a DoC for the PC peripheral portion.
3) From the test configuration photographs, an antenna cannot be seen for certain. Please provide an additional photograph at a closer distance in effort to show the placement of the PCI device within the computer and location of the antenna externally.
4) The application appears to contain information for 2 different antennas. Both of these appear to include information regarding cables attached to the antenna, however in this installation, no cables appear necessary. Please review and adjust as necessary.
5) RF exposure information on the second page of this exhibit suggests this device is portable. This type of device is normally considered mobile. Please review and adjust as necessary.
6) The users manual is missing RF exposure information. Typically this type of device should include the following information:
   "To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter".
7) Users manual appears to show information regarding 802.11a (page 17-labeled 14). However this approval appears to only be for 802.11 b/g. Please review, explain, and correct as necessary.
8) Users manual appears to show information regarding changing of power and possibly to adjust power to 100 mW or higher (page 16&17-labeled 13&14 & 24-labeled 21). However this device is being approved at 68 mW (maximum conducted power measured). To meet FCC requirements

(15.15 of the rules), the use can not be given control of adjust power above approved levels. Please review, explain, and correct as necessary.

9) RF exposure appears miscalculated. Power in the calculation should be in mW not W.
10) Please explain the factor of 3.0 dB used in the TX power testing and the 11.4 dB used for PSD tests. What was this for?
11) Please explain the 1.5 dB offset in plots found on pages 23 – 30. Are the plots corrected for the radiated measurements setup?
12) Test appears to have taken place June 28, 2005 – July 14, 2005. The BiLog on page 45 appears out of calibration. Please review and correct as necessary.
13) Page 45 mentions measurements < 1 GHz were made at 10 m. However limits appear to be shown at 3 meters and test photos seem to support 3 meter. Please explain at what distance measurements were made and if not made at 10 meters, where are correction factors applied.
14) Page 46 mentions measurements > 1 GHz were made at 10 m. Due to FCC rules, limits, and dynamic range issues this is highly unusual. Additionally, limits are cited as 3 meter. Please explain.
15) Section 15.15(b) prohibits adjustments of any control by the user that will cause operation of a device in violation of the regulations. Accordingly, any proposal to allow the end user to choose extended channels on frequencies outside of an allowable frequency band in the USA is not acceptable. For example, a WLAN device operating according to Section 15.247 on channels 1-11 between 2.4 - 2.483.5 GHz must not have any user controls or software to allow the device to operate on channels 12 and 13 which are outside of the allowed USA band. For instance, the user should not be able to select alternative countries which would allow different channel plans outside of the allowed USA band. Please explain how this device is compliant to this requirement.
16) Page 54 shows peak data in excess of the average limit at 4.9 and 7.4 GHz. This measurement also requires average data as well. Please note that for average measurements VBW must be > 1/Ton time if the carrier contains any duty cycle.
17) Page 58 shows peak data in excess of the average limit at 2.09 GHz. Since this does not fall in a restricted band, compliance to the 20 dB down from the carrier should be shown. Note that antenna conducted plots for 20 dB down were not provided in this application.

Timothy R. Johnson
Examining Engineer

mailto: tjohnson@AmericanTCB.com

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. 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 sender.