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

July 18, 2003

RE: Aruba Networks

FCC ID: Q9DARUBA52

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

1) Certain documents appear to be uploaded as confidential (block diagram & schematics) however a confidentiality letter was not provide. Please explain or provide this letter.
2) The labeling information appears to also be labeled for a DoC. It is assumed this is for the PC peripheral part of the device. However the labeling is missing the appropriate FCC logo. Please update the labeling.
3) The antenna appears to contain 2 RF cables, one for 2.4 GHz and one for 5 GHz. Is the internal construction of the antenna actually contain 2 separate antennas, or is there a shared antenna internally. Please provide close up internal photographs of the antenna construction to show whether the antennas are separate or not internally. Note that a shared antenna would suggest a concern with mixing of both the 2.4 and 5 GHz signals, therefore creating inter-modulation concerns if they operate at the same time and share the same RF antenna.
4) The RF exposure shows separate calculations for each mode of operation (802.11b, 802.11a, 802.11a turbo, etc.). Please explain if this device (under normal use by the user) may transmit simultaneously using both 802.11b and 802.11a. If so, please update the RF exposure to show the composite RF exposure condition which can occur.
5) Please provide test configuration photographs available for the AC power line conducted tests.

DTS Report

6) Page 8 of 18 of the DTS report states that the antenna is a standard N-type connector and that this is professionally installed. This device does not appear to be professionally installed and additionally does not appear to contain an N-connector (see information on page 3 of 29, DTS Report). Please explain and correct the report if necessary.
7) Page 23 of 62 of the DTS test report appears incomplete. Please explain.
8) The power spectral density given on page 5 of 18, DTS report does not match the data given on page 12 of 29.
9) The Fundamental measurements made for peak and average measurements on page 7, 8, 9, 19, 20, 21 of 29 should have been measured with RBW=VBW=1 MHz for Peak and RBW=1 MHz & VBW = 10 Hz for Average. However the table on each page states a 100 kHz was used. Please correct as appropriate.
10) Please explain why the 3rd bandwidth plot does not show the standard DSS envelope typically seen in the previous 2 bandwidth plots for pages 11 & 23. Additionally, the results for the High channel on page 25 appear unusually low. Please explain.
11) This test report contains 2 complete sets of radiated data for 2.4 GHz (1st starts on page 5, second on page 17). However there is no explanation between these sets of data. Please explain the purpose of both sets of data.
12) The resolution correction given on page 18 is only valid if correcting for a RBW from 1 MHz to 100 kHz (approximately 1%) and the VBW stays constant. Please provide information for the RBW and VBW used for both traces shown on this plot. Additionally, this correction appears to only be applied to one data point on page 19 and two data points on page 22. These data points should be adjusted as necessary in the comments column to show the appropriate correction factor for these points.

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UNII Report

13) The users manual does not appear to contain the information to the user regarding 15.407(e).
14) There has been some concern regarding the use of peak power meters for certain modulations and bandwidth signals. Please provide Peak power data in accordance to one of the methods given in the FCC Public Notice DA 02-2138.
15) The resolution correction given on page 5 of 48 is only valid for restricted band measurements if correcting for a RBW from 1 MHz to approximately 1% of the bandwidth of the fundamental and the VBW stays constant. It appears that 100 kHz was used and a RBW should have been approximately >= 200 kHz from the information given on page 13 of 48. Please provide a corrected bandwidth correction plot and be sure to include information for the RBW and VBW used for both traces shown. Additionally, when this correction is applied, the data points associated with this correction should be adjusted as necessary in the comments column to show the appropriate correction factor for these points. This issue will affect the 4 reported results for 5150 MHz and the results reported on page 4 of 48.
16) Please provide PSD data for the high channel in the 5.150-5.250 Band.
17) Does this device contain a turbo mode which incorporates a different channel set and should require testing?
18) Peak excursion measurements do not appear to show Trace A with RBW = 1 MHz and VBW >= 3 MHz according to FCC Public Notice DA 02-2138.
19) Page 48 does not appear to take into consideration the 4.5 dBi gain for the antenna in the limit (limit = -17 dBm - 4.5 = 21.5 dBm) in the UNII band nor does the measurement appear to factor in this correction. It appears this device may fail this test.
20) The application does not appear to provide any information regarding 15.407(c) & (g).

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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.