



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

May 3, 2003

RE: Vivato, Inc.

FCC ID: QLNVLJ24WFSW

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

- 1) The application mentions that the FCC conversations may be considered confidential but was to be determined when the application was originally uploaded. Please confirm if this information is to be considered confidential. Note that if it is considered as confidential, the confidentiality request letter must be updated to include this.
- 2) The application discusses that complementary beam forming is a future option and must be discussed further with the FCC before it is found to be acceptable. However in one of the Q/A files, it is mentioned that this feature may be turned on/off at will. Please explain if this feature is currently available, and if so is has there been any further discussion between the FCC and Vivato that can be provided on this topic.
- 3) From the labeling, it appears that the device is being subjected to a Declaration of Conformity as a PC peripheral device. However, the DoC labeling is missing the required "FOR HOME OR OFFICE USE" as specified by 15.19(b). Please note that although the phrase "Tested to Comply with FCC Standards" is also missing, this phrase is not necessary when the 2 part statements as given in 15.19(a)(3) for a Certification are also on the device.
- 4) Since this device is also considered a PC Peripheral authorized using a DoC, then a compliance information sheet should be included in the manual or as a separate sheet. It may be best to include this information on the same page as your FCC statements. The compliance information sheet must contain the following information:

COMPLIANCE INFORMATION (47CFR 2.1077)

If a product is tested and authorized under a Declaration of Conformity, a compliance information statement shall be supplied with the product at the time of marketing or importation, containing the following information:

- (1) Identification of the product, i.e. name and model number.
- (2) A statement similar to that contained in Section 15.19(a)(3) that the product complies with Part 15 of the regulations.
- (3) The identification, by name, address and telephone number, of the responsible party. The responsible party is defined as either the manufacturer, or if the equipment is imported, the importer. The responsible party for a Declaration of Conformity must be located within the United States.
- 5) For data given in section 3.2 of the test report, please confirm that the device was fully rotated to obtain worse case positioning for azimuth each result.
- 6) There appears to be an error in the calculations in Table 3.5-1, 3.7-1, 3.8-1, 3.9-1, 3.10-1, 3.10-2, & 3.10-3. The corrected level does not appear to equal the reading + insertion loss of the filter. Please note that the first few tables did appear to be correctly calculated. Please explain.
- 7) Regarding AC conducted emissions, no data appears to have been taken below 450 kHz. Please confirm that the emissions were scanned from 150 kHz to 30 MHz.
- 8) For section 5 of the test report, please provide information regarding the RBW and VBW settings for the various measurements made. For measurements above 1 GHz, only average measurements have been shown. Since there are also peak limitations as specified by 15.35(b) of the rules, please provide information regarding the peak to average ratio of emission > 1 GHz. Additionally, these measurements are required by 15.109 of the rules, not 15.209. Please correct.
- 9) All of the spurious radiated data (i.e. Section 6.5/6.6/6.7) appears to show maximization at one angle of 40 degrees. However, this data was taken for 3 different zones (1, 6, or 13), each of which should occur at different angles from the antenna. Please explain.

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- 10) The test procedure in section 7 mentions a 300 kHz VBW, but only 100 kHz VBW was used. Please correct.
- 11) Table 9.29 appears to show failing data, but the data appears to be place into incorrect columns. Please correct as necessary.
- 12) As given in this application, the output power is not simply the power into one of the 16 points, but requires combining all 16 ports in order to obtain the true effective output power. This suggests that the spectral density test should also be considered as a summation. However, given the frequency (and time) dependent nature of this test, a true summation from the output ports would likely not be valid either. We would suggest performing an additional test using the alternative radiated method specified in several of the FCC's public notices. Also, given the nature of the beam take about



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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.