



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

February 24, 2004

RE: BenQ Corporation

FCC ID: JVP56W11

I have a few comments on the above referenced Application.

Basic Information

- 1) Please provide an operational description exhibit for this application. Please clarify if confidentiality is required for this exhibit and adjust the confidentiality request letter as necessary.
- 2) Please verify that the user does not have the capability of manipulating controls such that the WLAN and GPRS/GSM transmissions may occur. The software control should be designed such that the user can not cause the device to transmit simultaneously. Note that users manual statements or warnings are not sufficient enough by themselves. Note that if these 2 transmitter DO transmit at the same time, due to limitations specified by the FCC TCB's would not be allowed to evaluate this application and it would require submittal directly to the FCC for review. If these transmitters DO NOT transmit simultaneously, please provide an attestation from BenQ Corporation regarding this issue.
- 3) The FCC ID shown on the labels is incorrect. Please correct
- 4) Please provide a photograph of drawing showing the placement of the label on the device.
- 5) It does not appear that voltage and current information was provided for the DC voltages/currents applied into the several elements of the final radio frequency amplifying device for normal operation over the power range. Please provide.
- 6) It does not appear that a description of all circuitry and devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation, and for limiting power. Please provide.
- 7) Antenna information referenced in the Confidentiality Letter does not appear to be provided. Please provide.
- 8) The 731 Equipment code should be DTS for the 2.4 GHz TX, and PCB for the Part 22/24 Tx.

DTS - EMC

- 9) Please provide photographs for the DTS testing. Note that AC Powerline emissions photographs do not appear to have been provided as a separate exhibit.
- 10) Page 8 of 37 states the highest frequency investigated was 12,750 MHz. Note that the FCC requires 10 times the highest frequency generated or used.
- 11) The 6 dB measurements points are not correctly taken. Note that the 6 dB bandwidth must take into account the widest points below the peak, not just at the first null. Most results for 802.11b devices are from 9-11 MHz. Please correct.

Part 22/24 - EMC

- 12) Radiated power for Part 22 should be shown in ERP, while Part 24 requires EIRP. However all tables appear to be labeled EIRP, but the columns show dBd and dBi. Please correct results for Part 22 to shown ERP as necessary.
- 13) It is uncertain what the Fc column in the radiated power tables is. Please explain.

DTS - SAR

- 14) Please provide the antenna information specified in 7) above. This is necessary to determine the number of hosts necessary for the SAR tests. For example, the 2.4 GHz SAR appears to only be done for one host. If the conducted OR EIRP power exceeds 100 mW, it is required to be performed in 3 typical hosts per platform.
- 15) The liquid parameters given on the System Performance Check do not appear to agree with the remainder of the report. Please explain and/or correct as necessary. Additionally, please provide a table to show the target and measured values related to the tissue liquid used for the verification.

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- 16) The test report should list/describe the maximum device rating for each operating mode and frequency range, both test sample and production units.
- 17) Output power measured prior to testing and the powers in SAR report be greater than or equal to what's in EMC report, but not exceeding tune-up/tolerance. This does not appear to be the case
- 18) Please provide higher resolution dipole calibration and probe calibration information. Many pages provided are not readable.
- 19) The report does not appear to show an overlay on the SAR plots to depict the relative location of hot spot on device, or outline of device on plot (i.e., which direction was the laptop facing in the, etc.). Please provide a better overlay, or something to clearly show this.
- 20) FYI. The FCC typically requests liquid parameters to be measured across the band of measurement. If this was made, please provide this information.

Part 22/24 - SAR

- 21) The crest factor given in the test report is 8.3. According to the application, this is a Class 10 GPRS device which utilizes 4 down slots & 2 up slots. GPS typically is a crest factor of 8, while this GPRS device appears to have a crest factor of 4. Please explain/correct the report as necessary.
- 22) It appears that the crest factor used during testing for GPRS may be incorrect. This may require SAR to be retested.
- 23) The test report should list/describe the maximum device rating for each operating mode and frequency range, both test sample and production units.
- 24) Output power measured prior to testing and the powers in SAR report be greater than or equal to what's in EMC report, but not exceeding tune-up/tolerance. This does not appear to be the case
- 25) Conductivity (page 22) appears to exceed the +/- 5% for the 835 MHz band. Please correct/retest as necessary.
- 26) The report does not appear to show an overlay on the SAR plots to depict the relative location of hot spot on device, or outline of device on plot (i.e., which direction was the laptop facing in the, etc.). Please provide a better overlay, or something to clearly show this.
- 27) The liquid parameters given on the System Performance Check do not appear to agree with the remainder of the report. Please explain and/or correct as necessary. Additionally, please provide a table to show the target and measured values related to the tissue liquid used for the verification.
- 28) Probe requires calibration at 835 MHz and 1900 MHz, not 900 and 1800 as shown in the test report. I have provided a training session from the FCC in regards to this issue. Therefore SAR appears to use incorrect probe factors.
- 29) It is uncertain if all hot spots were captured during the scanned as the edges appear to reach the edge of the scan area for scans shown in plots on page 37-38, 41-42, and 44-46. There should not be any clipped peaks shown on the plots, or if necessary secondary scans should also be shown.
- 30) Testing for 1900 MHz appears to be done over a 2 day period. Note that dipole verification and liquid parameters must be measured each day of testing.
- 31) FYI, it is preferred to use a 1900 MHz dipole for verification instead of the 1800 MHz, even though they are both within 100 MHz of the center of the band.
- 32) FYI. The FCC typically requests liquid parameters to be measured across the band of measurement. If this was made, please provide this information.



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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.