



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

September 20, 2004

RE: FCC ID: JVPS668C\_ATCB001730

Attention: Ellis Wu

I have a few comments on this Application. Please note that further comments may arise in response to answers provided to the questions below.

1. FYI. Please note that the exhibit labeled "Confidential\_Blk Dia\_JVPS668C.pdf" is more appropriately the Theory of operation. Since the existing exhibit called "OpDes\_JVPS668C.pdf" is not an adequate operational description for a licensed device, the file "Confidential\_Blk Dia\_JVPS668C.pdf" should be provided as the operational description, and the confidentiality letter should be updated to include the operational description as a confidential file.
2. Please note that the declaration document "Declaration form (on 1900MHz)\_JVPS668C.pdf" states that the only accessories provided are the battery charger and battery only. Please note that the external photos clearly show an ear piece (hands free kit) that is used in body worn configurations. Also please note that page 164 of the manual (page 78 of the file [UserMan-2\\_JVPS668C.pdf](#)) states, "Use only genuine BenQ accessories such as batteries, battery charger and **hands-free kit.**" As a hands free kit is clearly identified in the external photos and specifically mentioned in the manual, please explain the discrepancy between the attestation letter and the actual device accessories available to the user as indicated in the manual and external photos.
3. Please note that your procedure for using the antenna substitution method is confusing. Please note that paragraph d of section 4.2.2.3 of the report states, "Rotated the Turn Table to find the maximum radiation power. Please note that the the substitution antenna is not rotated on the table. The proper method is to find the maximum radiated value of the device by maximizing the table and receive antenna et; replace the device is a substitution antenna properly oriented towards the receive antenna; apply a signal to the substitution antenna so as to reproduce the radiated signal from the EUT. Calculate the ERP/EIRP. Please explain why the turntable was rotated with the substitution antenna.
4. Please note that the formula for Correction Factor stated on page 18 of the report appears to be a calculation of ERP from a field strength measurement and not that of an actually measured EIRP using the required antenna substitution method. Please note that this is indicated because you use the receive antenna gain etc. Please note that EIRP for part 24 devices are mandatorily measured values and not calculated from field strength values. A primary reason for this is to remove the unknown errors caused by the use of receive antenna factors. Please explain and please provide actual measured EIRP values using the acceptable antenna substitution method.
5. FYI – no action needed. Please note that the out of band emissions of a device is to be measured using a resolution bandwidth no smaller than 1% of the band width of the EUT. As the least measured bandwidth of the device is 310kHz, the 1% rule would put the resolution bandwidth at 3.1kHz. This is the smallest resolution band width that would be usable. Please note that if you analyzer cannot be set to the 1% res bandwidth, it is to be set to the next higher res bandwidth available. Technically then the res bandwidth used on pages 33 and 34 of the report are not accurate. As the error introduced by the use of this smaller res bandwidth is only approximately 0.2dB and since the device is at least 1dB under the -13dB limits, it is unlikely that the FCC would have a significant problem with the values used. However, future measurements should be made using the prescribed requirements of no less than a 1% resolution bandwidth.
6. Please provide the formula used to determine the "correction factor" values shown in the tables on pages 53 through 56 of the report. Please be consistent with the terminology used in formulas and in the presentation of formulas.
7. Please note that the SAR report states that a minimum 1.5cm spacing must be maintained (page 14 of the SAR report). Please note that as this device manual clearly shows it is intended to be used in a hands free environment (consequently worn on the body) the manual needs to state this

distance as well as the fact that no accessory should contain metal. Please include the 1.5cm minimum separation distance warning in the manual.

8. Please note that on page 26 of the SAR report the system validation was said to be done using probe serial number 1687 and dipole serial number 5d036. However, the dipole data plots and the EUT test plots state that testing was done with probe serial number 1790. Please retest SAR with the correct probe serial number or please explain and correct the serial number actually used in testing and validation.
9. Please provide calibration data for the probe at 1900MHz. Alternately, please explain what is meant by the calibration laboratories phrase "Valid for  $f=1710 - 1910$  MHz with Body Tissue Simulating liquid according to OET 65 Supp. C." Is this a claim of valid calibration parameters for this device at 1900MHz? Please note that the FCC has stated that probe calibration for PCS phones is to be done at 1900MHz and not at 1800MHz. Consequently the above statement from the calibration certificate is not adequate to show calibration at 1900MHz.



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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.