

Response to ATCB Comments dated 3rd June 2003

1.) All Bluetooth Part 15 Certifications must have Test Setup photographs and Operational Description. Please be sure to include as separate Exhibits.

[Bluetooth certification test set up photographs and operational description have been uploaded.](#)

2.) All Part 15 reports must include the language of 15.21 in the owner's manual. If I have missed it, please show me where it is located.

[The statement that warns the user about non-authorized modifications to the device and that it may void the authority granted for operation of this device, can be found on page 2 of the User Manual.](#)

3.) Please indicate where in the Manual the SAR values are listed. I could not find it on first glance.

[The SAR Test values are listed on page 164 of the User Manual](#)

4.) A Confidentiality Request letter must accompany this Application. In general, only Schematics, Block Diagram, Operational Description and Parts List can be held Confidential. Please supply on Nokia letterhead.

[A confidentiality request letter has been uploaded for this application](#)

5.) Photo #1 and #2 of the External Photographs are confusing. Am I looking at the same device? Please explain.

[Photo 1 and 2 are the same device. Photo 1 is the front view showing display and keymat. Photo 2 is the rear view showing the battery cover and the camera window](#)

6.) Does the SAR Phantom conform to the requirements of P1528? The SAR report should explicitly indicate this information.

[The SAR report states that testing has been carried out to IEEE 1528-200X Draft CBD 1.0. The fully compliant phantom is shown in section 3.6.](#)

7.) What is the measured gain of the Bluetooth antenna when mounted within the phone?

[The gain of the Bluetooth antenna is -1 dBi](#)

Response to ATCB Comments dated 5th June 2003

1.) Please address all the comments from my note of June 3, 2003 on a point by point basis. Please upload your responses to any of these comments to the Additional Information section of the Application at the AmericanTCB.com website.

[Responses are included in this document](#)

2.) The FCC rules for Part 22 and 24 equipment have changed. It is now necessary to demonstrate Block Edge and not just Band Edge compliance per 22.917(b) and 24.238(b). Please provide these measurements. I have attached the latest version of the Rules for your convenience.

[Measurements provided, refer to uploaded report "Exhibit 06 part 22 24 updated" dated 9th June 03](#)

3.) Please provide an Occupied Bandwidth plot for both the Part 22 and Part 24 GSM emissions.

[Plot provided, refer to uploaded report "Exhibit 06 part 22 24 updated" dated 9th June 03](#)

4.) Please provide an Occupied Bandwidth plot for the Bluetooth emission.

[Quote from RFI "The only bandwidth requirement for Bluetooth is a measure of the 20 dB bandwidth. See Part 15.247\(a\)\(1\). This measurement was performed with both tabulated and graphical results being reported on page 24 of report RFI/MPTB2/RP44497JD02A"](#)

5.) In addition to the EIRP measurements, it is advisable to provide conducted RF Pout measurements for all equipment which requires SAR testing. Kindly provide this measurement at three channels in both the 800 and 1900 bands. These values must match the target values in the Tune Up procedure and also the SAR report

[The test sample was tuned identically to mass production. This product has no external RF connector. ERP/EIRP values, measured by RFI, are given in SAR report.](#)

6.) There is a strip outlet used during AC Powerline Conducted testing. This is not allowed. Measurements must be made with the EUT plugged directly into the LISN.

[Quote from Test House RFI :-](#)

[There may be confusion with the photos here, I can confirm that the EUT was indeed plugged directly into the LISN for AC conducted tests. Our setup photo "PHT\44497JD02\002 Left view of AC Conducted Emissions" clearly shows the EUT plugged into the LISN. The grey box bolted to the floor via the copper ground plane is the LISN. The right side of the LISN in the photo is the business end where the EUT is plugged. You can make out the black charger. The 4 way striping extension lead shown at the top of the photo is providing the supply for the LISN only.](#)

[Please note that C63.4 Section 6.1.4 \(3.2\) states that multiple outlet strip can be used for non-EUT equipment. The LISN is none-EUT equipment.](#)

Quote: "6.1.4 Interconnect and power cabling (or wiring)
3.2) Multiple outlet strip can be used for multiple power cords of non-EUT
equipment."

Photo "PHT\44497JD02\004 Front view of Radiated Emissions" and "PHT\44497JD02\005 Side view of Radiated Emissions" are the radiated setup photos on our open are test site. They show the EUT connected directly to a 4 way strip extension lead. This is acceptable according to C63.4 Section 5.2.3 which states LISN's may be used for radiated testing but does not state it as mandatory.

Quote: "5.2.3 LISN installation LISNs may be required for ac powerline conducted emission measurements and may be used for radiated emission measurements."

7.) Unless I have missed it, I do not see where the required SAR test values are listed in the Manual. Kindly direct me to the listing of the values found during testing.

The SAR Test values are listed on page 164 of the User Manual

8.) Please direct me to the required language of 15.21 in the Manual.

The statement that warns the user about non-authorized modifications to the device and that it may void the authority granted for operation of this device, can be found on page 2 of the User Manual.