



MOTOROLA

August 23, 2002

Subject: Supplement to SAR Test Report for Motorola portable cellular phone (FCC ID IHDT56CF1)

Reference:

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Summary of FCC request for additional information

There was a request for additional information regarding the TCB grant for: Motorola portable cellular phone (FCC ID IHDT56CF1). The requested information is addressed below in the same numbering sequence received.

EMC

- 1) Information demonstrating compliance with part 22 ESN and E911 requirements. Such information could not be located.

Response: Please refer to Exhibit 12I and Exhibit 12J in the original submission. (PDF pages 11 & 12 in Operational Description Exhibit 12)

- 2) Additional internal photos. Please include all components such as the case.

Response: Please refer to attached exhibit 9A. In addition, a sample production unit as been submitted to you for audit..

SAR

- 1) Z-axis scan SAR data for the highest SAR test points or photographs demonstrating 15 cm liquid depth for the device measurements.

Response: The Z-axis scans are taken during every system accuracy verification test. This test is performed daily before taking any SAR measurements. Please refer to Appendix 1 – page 19 of the original SAR report. It shows the Z-axis scan taken on the same day the highest SAR is included in Appendix 2 – page 35 of the original report.

- 2) Updated user manual with revised RF safety statement. No Motorola accessories were tested for body-worn use. Please remove these references. If Motorola's response to TCB request is to be used please revise. The statement that "Motorola does not endorse the use of non-Motorola body-worn accessories" could easily be misunderstood. Please revise.

Response: Please refer to Appendix 1 of this document.

- 3) Justification for distance used in body-worn test. Supplement C recommends 1.5 cm when no body-worn accessory

is used. Furthermore, the photographs provided suggest that the one-inch gap used is to the antenna and not the body of the phone where a body worn accessory normally would be used. Please retest with a 1.5 cm gap to the body of the phone as appropriate.

Response: According to Supplement C (Appendix) “*Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm”*. The separation distance shown in the picture in Appendix 5 – page 49 of the original SAR report is 25 mm or 2.5 cm, which is in conjunction with the above recommendation quoted from Supplement C.

Since the Antenna is tilted outwards towards the back of the phone making the separation distance from a flat phantom shorter compared to the rest of the back part of the unit, the separation distance was measured from the tip of the antenna to a flat phantom rather than the rest of the back part of the phone as shown in the picture in Appendix 5 – page 49 of the original SAR report.

Appendix 1
(Response to Question 2)

Dear Martin,

You have asked us to adopt the following sample language from Supplement C:

“The use of belt-clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.”

FCC and Motorola share a common goal: to assure that consumers receive clear information about the use of body-worn accessories and SAR. It is important that consumers understand that Motorola takes the appropriate steps to test accessories for compliance with SAR limits. Second, customers must be warned not to use accessories that may be untested and non-compliance. However, in warning customers we do not want to mislead them into believing that Motorola’s after-market accessories are not compliant. As you know, we test both after-market accessories as well as those that accompany the product.

Our basic concern is that customers might interpret your recommended language as applying to Motorola’s products that are tested for compliance. If we determine that a metal spring is needed for reliability in a holster that is tested and complies with FCC’s SAR guidelines, we do not want to be precluded by this language from providing a more reliable product to the customer. Therefore, we believe the language we use in our manual serves our customers better:

“Use of non-Motorola-approved accessories may exceed FCC/Health Canada RF Exposure guidelines. If you do not use one of the Motorola-supplied or approved body-worn accessories, and are not using the phone held in the normal use position, ensure the phone and its antenna are at least one inch (2.5cm) from your body when transmitting.”

We believe this language accomplishes the following objectives:

1. It warns against using non-approved (and therefore untested) accessories;
2. It advises customers what to do if they choose to use a non-approved accessory.

We, therefore, respectively renew our submission of our standard language - which previously has been accepted by the FCC. If you continue to have concerns, we would request a meeting next Friday (August 30) to discuss the issue in person.