



**MOTOROLA**

**Date:** August 29, 2003

**Subject:** Request for additional information (CHI MEI COMMUNICATION SYSTEMS, INC. - FCC ID: QDJ-0303BEN01)

**Reference:**

Job Reference Number: 1214UC3  
Date of Original Email: 8/28/2003

**Prepared by:**

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The following responds to your questions:

1. RF Exposure - User's manual: End-users must be informed of the body-worn operating requirements (e.g. new belt-clips accessories, etc.) for satisfying RF exposure compliance. The SAR values must be updated as well. Please, provide the m/n of the belt-clips tested with this product and revise the operating requirements accordingly.

**Response:** Please refer to the body worn accessory and SAR text for the user manual, attached at the end of this document.

2. Part 2.1033(c)(8): Please, confirm that the values reported in exhibit "0303BEN01 Base Band Spec.pdf" page 37/37 are unchanged after the increase in power. Otherwise, please, provide amended test data.

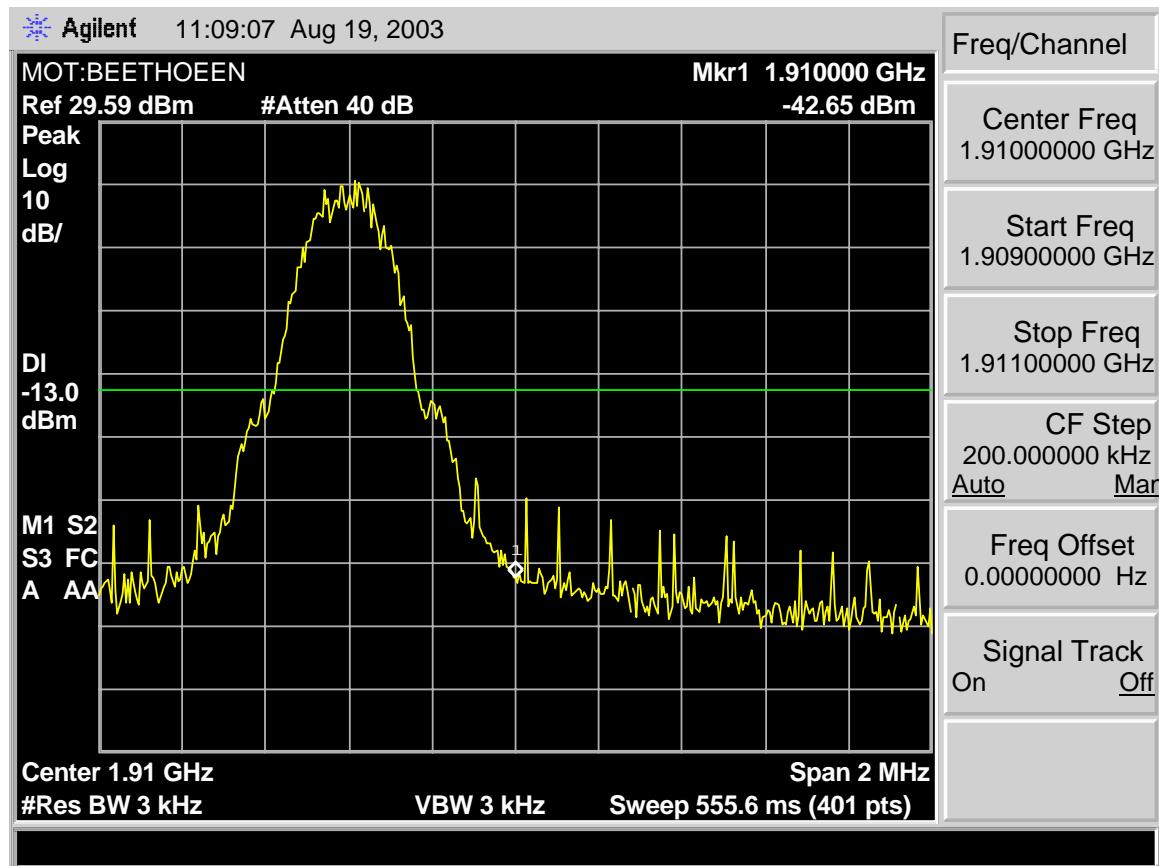
**Response:** The dc voltage remains at 3.6V. The average current is increased to 310 mA.

3. Form 731 lists a power of 600mW. Please, confirm that the power should be listed at 1.2Watt conducted, which will be listed on the Grant.

**Response:** Conducted power is increased to 1.5 Watt. Radiated power is 0.6 Watt EIRP. We prefer to list EIRP only on the grant.

4. Part 24.238 - Block-edges: It could not be found a plot showing compliance at 1910MHz (block C) while the channel is set to 810 (1909.8M). Please, provide such data. The plots on Page 15/29 "GSM 1900 C1 Max. Block Edge" and page 17/19 "GSM 1900 C5 Max. Block Edge" show a carrier at 1909.6, which is conflicting with the band requested on Form 731.

Response: Please refer to the plot below. We request a change on the Form 731 to indicate the highest frequency as 1909.6 MHz instead of 1909.8 MHz.



### GSM 1900 C Max. Block Edge

#### 5. FYI - Grant notes:

"Power listed is conducted. SAR compliance for body-worn operations is restricted to belt-clips, holsters and accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines. End-users must be informed of the body-worn operating requirements for satisfying RF exposure compliance. The highest reported SAR levels are: Body-worn: 0.44 W/kg, Head: 0.12 W/kg. This device contains 900/1800 MHz GSM functions that are not operational in U.S. Territories. This filing is only applicable for 1900 MHz PCS operations."

**Response:** We prefer to list only the EIRP power on the grant.

## ***Phone Operation***

When placing or receiving a phone call, hold your phone as you would a wireline telephone.

## ***Body-Worn Operation***

To maintain compliance with RF energy exposure guidelines, if you wear a phone on your body when transmitting, always place the phone in a Motorola-supplied or approved clip, holder, holster, case, or body harness for this phone, where available. Use of accessories not approved by Motorola may exceed RF energy exposure guidelines. If you do not use one of the body-worn accessories approved or supplied by Motorola, and are not using the phone held in the normal use position, ensure the phone and its antenna are at least 1 inch (2.5 centimeters) from your body when transmitting.

## ***Data Operation***

When using any data feature of the phone, with or without an accessory cable, position the phone and its antenna at least 1 inch (2.5 centimeters) from your body.

## ***Approved Accessories***

Use of accessories not approved by Motorola, including but not limited to batteries and antenna, may cause your phone to exceed RF energy exposure guidelines. For a list of approved Motorola accessories, visit our website at [www.Motorola.com](http://www.Motorola.com).

## ***Specific Absorption Rate Data***

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**The model wireless phone meets the government's requirements for exposure to radio waves.**

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government and by the Canadian regulatory authorities. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age or health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC and by the Canadian regulatory authorities is 1.6W/kg.<sup>1</sup> Tests for SAR are conducted using standard operating positions accepted by the FCC and by Industry Canada with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station, the lower the power output.

Before a phone model is available for sale to the public in the U.S. and Canada, it must be tested and certified to the FCC and Industry Canada that it does not exceed the limit established by each government for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) reported to the FCC and available for review by Industry Canada. The highest SAR value for this model phone when tested for use at the ear is 0.12 W/kg, and when worn on the body, as

described in this user guide, is 0.44 W/kg. (Body-worn measurements differ among phone models, depending upon available accessories and regulatory requirements).<sup>2</sup>

While there may be differences between the SAR levels of various phones and at various positions, they all meet the governmental requirements for safe exposure. Please note that improvements to this product model could cause differences in the SAR value for later products; in all cases, products are designed to be within the guidelines.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications & Internet Association (CTIA) Web site:

<http://phonefacts.net>

or the Canadian Wireless Telecommunications Association (CWTA) Web site:

<http://www.cwta.ca>

1. In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.
2. The SAR information includes the Motorola testing protocol, assessment procedure, and measurement uncertainty range for this product.

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