Applicant: Motorola Inc FCC ID: AZ489FT5846

Date: 9<sup>th</sup> June 2006

Mr. Martin Perrine Authorization & Evaluation Division Federal Communications Commission Laboratory 7435 Oakland Mills Road Columbia, MD 21046

Re: Form 731 Confirmation Number: EA585607 with FCC ID: AZ489FT5846.

Dear Mr. Perrine,

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322, herein submits its response to the 19 May 2006 request for information on FCC ID: AZ489FT5846, EA585607 via Correspondence Number 30922 and 30923, which followed a telephone conference on that same date.

Q-A. Regarding your answer to question 2, please readdress as discussed. Please include HH coil calibration data. Please include a demonstration that the probe frequency response with various corrections is correct e.g. show both measured and error from ideal frequency response. Please include the P50 signal corrections. Please assure that loading impedance and cable lengths are identical for both calibration and measurement as loading and capacitance may change the probe response.

# **Response:**

Corrected frequency response plots are provided for figures 5, 6, and 7. In addition an error plot is provide along with each of those plots. With respect to load impedance, and the impact of varying cable lengths, the same equipment set-up was used for calibration and measurement (i.e. the cables were not changed between calibration and product measurement). The report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602) has been updated to reflect this.

Q-B. Regarding your answer to question 4 please provide the additional information discussed.

### **Response:**

Section 3 of the report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602) has been expanded to address aspects of user control of the earpiece frequency response to optimize telecoil performance, including references to specific sections of the User Guide.

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Q-C. Regarding your answer to question 6 please include broadband ABM2 ambient noise measurements for each orientation.

### **Response:**

The noise data supplied originally used full-band integration. Figures 12A, 12B, and 12C of the report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602) have been corrected to show the response using half-band integration, as specified in the standard.

Q-D. Regarding your answer to question 8, please provide additional details as discussed including the adjustment of the ABM1 1 kHz value for the effective narrowband response. Please justify the offset used. Please detail how the signal level was set at the system input. Please discuss averaging times of the P50 signal.

# **Response:**

The average value was that during the speech portion of the standard 11 second P50 Male waveform file. The input level in the base station was then set such that it was equal to the average value determined using the wave file. The last paragraph of Section 6.1 of the report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602) has been added to clarify this process, and demonstrate equivalence.

Q-E. Regarding your answer to question 9 please update the ABM2 probe response for HBI.

#### **Response:**

As noted in our response to item C above, the probe data has been updated for the use of half-band integration. Figures 14 (A and B) and 15 (A and B) of the report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602) respectively address the 800 and 900 MHz undesired signal responses, with half-band integration.

Q-F. Regarding your answer to question 12 please include a discussion of Vocoders and RF multiplexing modes to show that all modes were fully addressed.

#### **Response:**

An expanded discussion of the Vocoders and RF multiplexing modes has been added to Section 3 of the report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602).

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Q-G. Please update the report to include answers from all correspondence.

## **Response:**

We have incorporated all our answers from all correspondence in the revised report (FCC\_HAC\_Telecoil\_Rpt\_i870\_Rev-B\_060602), dated 2 June 2006.

To clarify our response to Question 9, we updated the enclosed report's Section 6.1, the last paragraph of which was added to clarify the AMB1 process, and demonstrates the equivalence of the P50 and tone stimuli. The AMB2 measurements reported in Section 9 were not power averaged, but are the actual 1 kHz level received from the A-weighted, half band integrated response of the Real Time Analyzer.

While the original response addressed the RF immunity of the test system when using the mobile unit as an RF source, a new section (Section 6.2) has been added to explicitly demonstrate the RF immunity of the measurement system when using a signal generator and standard dipole antennas.

If you have any questions, please contact me at 954-723-5793.

Sincerely,
/s/ Mike Ramnath (signed)
Mgr, Regulatory Compliance

Email: Mike.Ramnath@motorola.com