Date: 17th July 2006

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

Re: Response to Correspondence 31104 and 31105 for FCC ID: AZ489FT5846 with Confirmation Number: EA585607.

Dear Mr. Perrine,

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322, herein submits its response to the 14 June 2006 request for information via Correspondence Numbers 31103 and 31104, which followed a telephone conference on that same date.

We thank you for that conference and the additional information you provided. Below are the detailed responses to the items about which you inquired.

Q1. Please readdress question 8 and D. Please include a re-measurement for the worst case configuration using both a CW tone and a P50 and show that equal results can be obtained. Please provide full details so that any offset used to obtain equivalent results can be fully understood.

Response 1:
In re-examining our previously submitted data after our 16th June discussion of the spectral content of the ITU P.50 input signal employed it became apparent that we improperly accounted for bandwidth considerations for both AMB1 and ABM2 total band power. Values previously reported for both were the readings within the 1000Hz 1/3rd octave sub-band. To remedy this, a revised report is attached wherein all the results reported in the tables in Sections 9, and the final ratings on the cover page, have been mathematically corrected accordingly by the ratio of the total audio signal power to the amount in the 1000Hz sub-band. The total signal power was determined by adding the signal power in each of the eleven standard 1/3rd octave sub-bands from 315 to 3150Hz.

One effect of these corrections was to boost by 10.71 dB the ABM1 inductive field strength values reported in Sections 9.2, 9.4, and 9.6, and the cover page. The correction represents the ratio of the total P50 signal power to the amount in the 1000 Hz sub-band. The signal strengths reported on the report front cover have been increased accordingly. These values also affect the signal quality rating which is address in the subsequent response to Q II.

Q2. Please re-measure ABM2 in the worst case configuration to include frequencies at least to 10 kHz. Alternatively, please show that there are no significant noise components beyond 5 kHz for this device.

Response 2:
As noted in the first paragraph of the preceding Q1 Response the total inductive noise signal power was determined from the test data and used to corrected the ABM2 data reported in sections 9.2, 9.4 and 9.6. The total signal power was determined by adding the noise signal power measured in each of the eleven 1/3rd octave sub-bands from 100 to 10000Hz. The amount of correction varied by band and multiplexing factor because unlike the P50 signal the proportion of noise-like energy in the 1000 MHz sub-band was not constant.

The signal quality results in section 9.3, 9.5, and 9.7 were affected to a lesser extent since signal quality is dependent upon the ratio of ABM1 to ABM2. Since the corrected noise signal value boost was greater than the corrected P50 signal value boost the corrected worst case signal quality value degraded 2.56 dB to 24.03 dB. This value is highlighted in Section 9.7 and noted on the report cover page. However, the final T-category rating that depends on the signal quality value remains unchanged at T4.

Q3. Please justify use of the RF frequency chosen. Please include a demonstration that ABM2 noise is not affected by RF frequency or that the frequency chosen is worst case.

Response 3:
Additional multiple frequency ABM2 type data was taken and is provided in new report sections 6.3 and 6.4. The same inductive probes were used for this measurement as were used for the data in section 9. This data was not taken over the air as was the actual ABM2 performance data because the over-the-air test frequency could not controlled. It was possible to control the test frequency via test software and an external control PC that enabled the unit to operate at specific band-edge and mid-band frequencies. The test software does not support a Vocoder and could only generate random data signals. The use of the random signal pattern was deemed useful to demonstrate ABM2 variations due to RF frequency variations because speech itself is random. The graphs in Section 6.3 and 6.4 shows the variation of the total pseudo-ABM2 power, both axial and radial, as a function of RF frequency over the range in which the unit may operate. Test data reported in section 9 was then revised by the difference observed between the test frequency used to obtain that data and the worst case values observed in these pseudo-ABM2 measurements. Specific axial and radial values for these adjustments are stated in the first paragraphs of sections 6.3 and 6.4 respectively for the 800 MHz and 900 MHz bands.

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

Sincerely,
/s/ Mike Ramnath (signed)
Manager, Regulatory Compliance
Email: Mike.Ramnath@motorola.com