



13<sup>th</sup> September 2006

TIMCO ENGINEERING INC  
 849 NW State Road 45  
 Newberry, Florida 32669

Re: Confirmation Number JOB 2579UC6, with FCC ID: AZ489FT7019.

Dear Mr. Clavier;

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida, herein submits its responses to the 11th September 2006 requests for information on Job Number 2579UC6.

**Q1)** Test report page 10: Please revise the unit of the peak field level for consistency with H field test.

**RESPONSE:** The unit of the peak H-field level has been modified in "HAC Test Report for Near Field Emissions AZ489FT7019, Revision 1 from September 12, 2006".

**Q2)** PMF procedure: Please explain that a VBW of 10 kHz is the worst- case. Particularly please demonstrate that the reduced bandwidth is accurate to measure the average power. The FCC specifies a VBW of > or = 20 kHz.

**RESPONSE:** We re-tested PMF measurements at 30 kHz. "HAC Test Report for Near Field Emissions AZ489FT7019, Revision 1 from September 12, 2006" has been modified to account for the new PMF measurements.

**Q3)** Please provide the location of the final probe rotation for the worst- case configuration(s).

**RESPONSE:** Probe rotation data was taken "for special focus on spherical isotropicity in measurement uncertainty and perturbation of EM fields." This guidance is given on page 21 of "Hearing Aid Compatibility TCB Review Guidance from 12 May 2005 Updated 18 July 2006". This data was taken at the interpolated maximum and directly accounted for in the uncertainty budget Table A5.1 as "Axial Isotropy." Section A5.2 of the AZ489FT7019 application details this and this section is included below for quick reference.

**A5.2 Probe Rotation Contributions to Isotropy Error**

**TABLE A4.2: Probe Rotation Data Summary**

	AVE	ST.DEV	Sample Size (n)	2σ	(ci)	Standard Uncertainty
E-field	4.4%	1.7%	82	7.8%	1	4.5%
H-field	3.8%	1.2%	82	6.1%	0.786	3.5%

Motorola I

Isotropy error measurements were taken for 13 products across the respective frequency bands. The +2σ values of all measurements was used as a worst case value for the uncertainty budget. Any significant differences between bands was also evaluated.

Probe is rotated for maximum reading at the interpolated maximum location. Thirteen mobile devices were used to determine the probe isotropy uncertainty factors in section A5.1. Based on the resulting 82 E-Field probe rotations and 82 H-Field probe rotations, the upper 95% confidence interval value was calculated for each. These values represent a conservative assessment of the effect of the probe isotropy and have been appropriately included in the respective E- and H- uncertainty budgets.

**Q4)** PMF: Full validation with all three signal types mentioned in ANSI C63.19 is required. Validation with AM 80% was not found. Please submit.

**RESPONSE:** The AM 80% validation measurements are provided in the table below, however this data has not been required in our previous FCC submissions (please refer to the note below the table).

Dipole	f (MHz)	Protocol	Input Power (mW)	Field Results
SN 1043	1880	AM 80%	100	130.7 V/m
				0.526 A/m

**NOTE:**

In our previous FCC filings, the AM 80% PMF measurements have been sufficient to satisfy this requirement. The AM 80% PMF measurements are provided in Table 5 of "HAC Test Report for Near Field Emissions AZ489FT7019, Revision 1 from September 12, 2006."

**Q5)** Scanning procedure: Please justify that a step size of 5mm is sufficient to produce worst-case data.

**RESPONSE:** Per section 4.4 of the standard, step sizes of 5mm or less are acceptable for standard DASY probe positioner uncertainty of 1.2% as stated in Appendix 5 Table A5.1 of the AZ489FT7019 application

**Q6)** Please show that the ambient noise is more than 20dB below the measurement level.

**RESPONSE:** The tests are performed in fully RF shielded environment. This environment provides the required isolation.

**Q7)** Please provide user's manual insert about HAC info.

**RESPONSE:** See attached.

Contact me at (954) 723-5793 if you require any additional information.

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