

Your answer did not appear to include details of what further review had revealed. Please readdress. It also appears that many of the issues raised in correspondences for HAC filings were not fully addressed. In addition to the above please address the following.

Further review has revealed that conducted power measurements, measurement distances, additional validation information (ABM1 dynamic range, integration times, ABM2 details), details of the scan and scanning mechanism, input signal details (level measurement/integration time, temporal and spectral characteristics), identification of measurement configuration for contour plots, RF measurement details used to establish final T-coil rating, details involved for vocoder selection, and uncertainty budget indicating lab specific components should be found in clause 6 applications. Please see below for these details in this application.

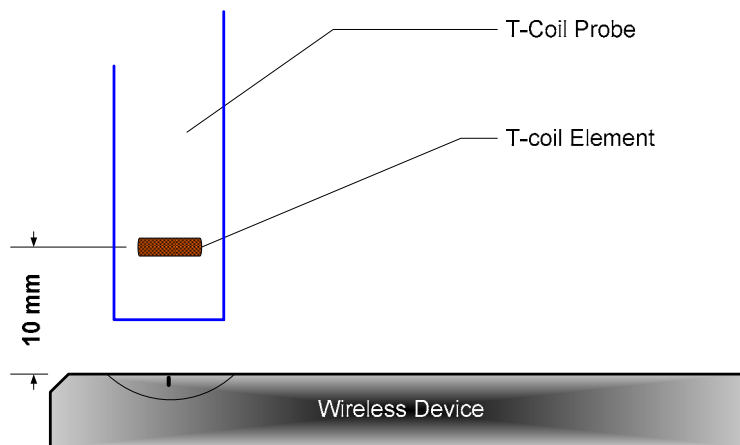
1) Please provide conducted power measurements of the phone associated with the test.

Please find below conducted power measurements of the phone associated with the test.

	Channel	Max (dBm)
GSM	128	32.83
	190	33.01
	251	32.9
PCS	512	29.5
	661	29.55
	810	29.7

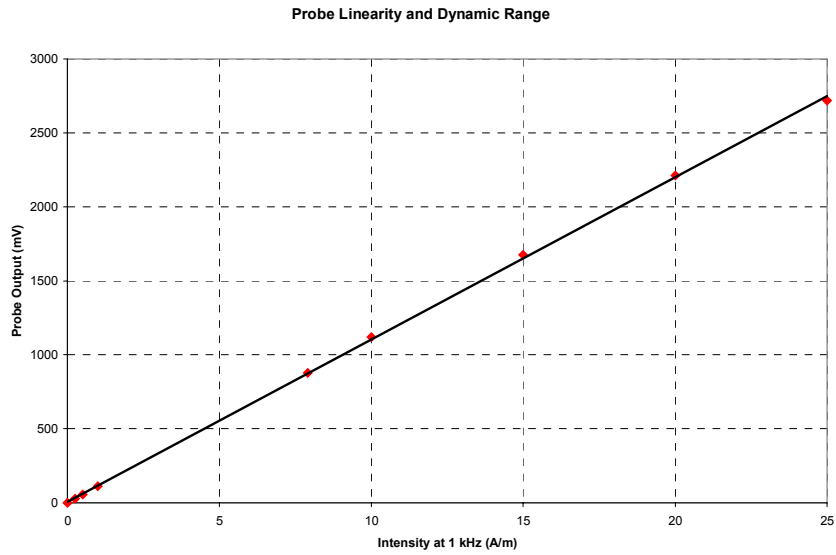
2) Details of the measurement distance from device reference plane to probe.

The device reference plane was 10 mm from the center of the T-coil element in the probe. See below diagram:



3) Additional validation information. ABM1 dynamic range, all integration times, details of noise signal for ABM2 including frequency range

ABM1 dynamic range:



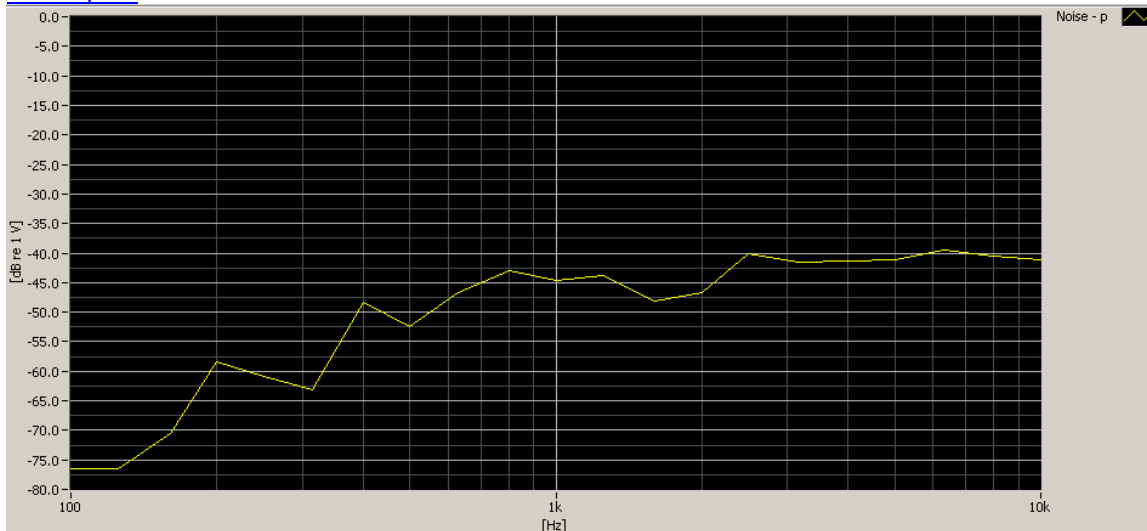
F/S (A/m)	Output (mV)	Variation (dB)
25	2718	-0.09
20	2212	-0.02
15	1676	0.03
10	1118	0.03
7.9	876	-0.01
1	111.076	0.00
0.5	55.500	0.00
0.25	27.670	-0.02
0	0	0.00

Integration Times:

ABM1: 10 seconds, averaged

ABM2: 5 seconds, 50ms sample time, maximized

ABM2 plot:



4) Calibration document provided shows noncompliance with C63.19 requirements. Please address.

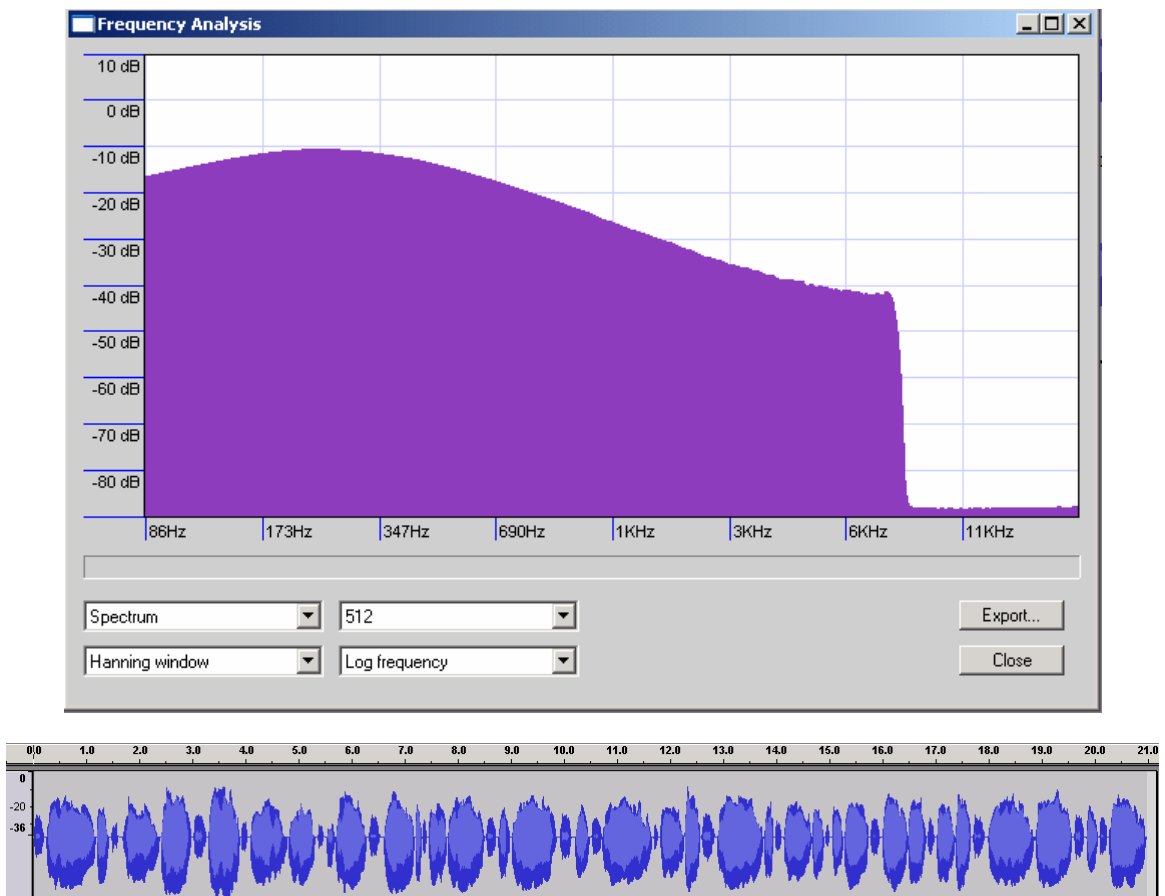
Please see Page 30 for laboratory check according to C63.19 specifications for the measurement system.

5) Please provide details of the scan and scanning mechanism.

HAC Measurement scans were performed using the TEM Positioner. Measurements are recorded at 2 mm scan increments over an area of 5 x 5 cm using the T-coil probe system.

6) Additional details for the input signal and reference level. Please include methods of level measurement and integration time. Temporal and spectral characteristics.

Please see Sec. 5, II, 3, b for input signal and reference level details. The reference level for the frequency response test was determined according to the overall RMS value of the P.50 WAV file (measured and determined by the signal generator prior to signal generation). The P.50 had no pauses shorter than 50ms within its waveform (to ensure 100% activity level). The spectral distribution of the stimulus is shown below:



7) Typical contour plots do not contain any measurement/configuration details.

Contour plots represent the worst-case (SNR) for each measurement configuration (axial, radial longitudinal, radial transverse).

8) Please provide full RF measurement details needed to establish final T-coil rating.

Please see below table including RF measurement details needed to establish final T-coil rating:

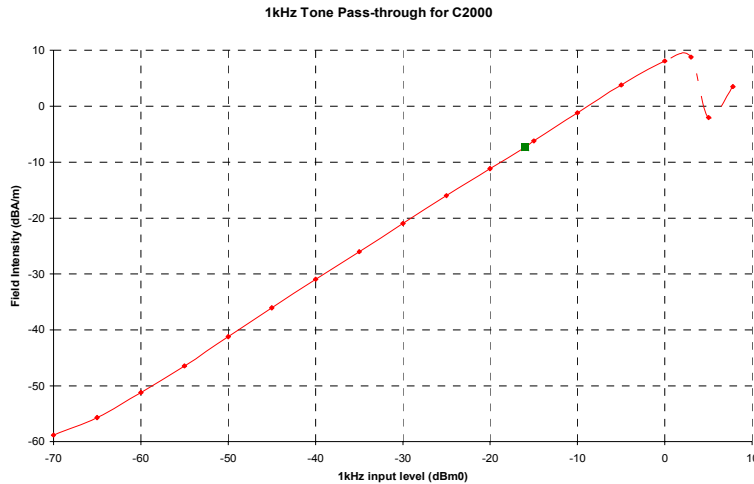
RF Emissions Category (C63.19-2006) within SNR measured location	M3
Signal to Noise Category (C63.19-2006):	T4
RT Category (C63.19-2006):	M3 T4

9) Photos/overlays showing final measurement points on the device.

Please see attached photos/overlays showing final measurement points on the device (filed under test setup photos short-term confidentiality)

10) Demonstration/discussion showing that the vocoder can pass a 1 KHz tone.

Please see below demonstration that this unit can pass a 1 kHz tone at the audio input level:



11) Location and probe orientation for vocoder selection test in 3d page 14 of 35.

The vocoder selection test was performed at the maxima location for the axial probe orientation.

12) Please discuss uncertainty table items. Which are lab specific? Please explain the RF reflections and WD repeatability items.

Contribution	Data +/- %	Data +/- dB	Data Type	Probability distribution	Divisor	Standard uncertainty	Standard Uncertainty (dB)
ABM Noise	7.0%	0.29	Std. Dev.	Normal k=1	1.00	7.0%	
RF Reflections	4.7%	0.20	Specification	Rectangular	1.73	2.7%	
Reference Signal Level	12.2%	0.50	Specification	Rectangular	1.73	7.0%	
Positioning Accuracy	10.0%	0.41	Uncertainty	Rectangular	1.73	5.8%	
Probe Coil Sensitivity	12.2%	0.50	Specification	Rectangular	1.73	7.0%	
Probe Linearity	2.4%	0.10	Std. Dev.	Normal k=1	1.00	2.4%	
Cable Loss	2.8%	0.12	Specification	Rectangular	1.73	1.6%	
Frequency Analyzer	5.0%	0.21	Specification	Rectangular	1.73	2.9%	
System Repeatability	5.0%	0.21	Std. Dev.	Normal k=1	1.00	5.0%	
WD Repeatability	9.0%	0.37	Std. Dev.	Normal k=1	1.00	9.0%	
Positioner Accuracy	1.0%	0.04	Specification	Rectangular	1.73	0.6%	
Combined standard uncertainty, uc						17.7%	0.71
Expanded uncertainty (k=2), 95% confidence level						35.3%	1.31

AMB Noise and RF Reflections are lab specific uncertainty components. ABM noise was measured at a reference location for 15 consecutive days. The standard deviation was 0.29 dB. RF Reflections uncertainty was taken from the specification.

System repeatability was measured with a fixed field generated through the Helmholtz Coil in 25 times system setup and disassembly cycles. Probe linearity was taken from the maximum deviation during probe calibration check for linearity. Cable loss was measured directly using a Spectrum Analyzer with a specified standard amplitude uncertainty of 0.21 dB. WD repeatability was assessed with 23 samples in a call, to account for vocoder variation (worst-case is reported for a CDMA vocoder). All other components were obtained from the manufacturer specifications.