EXHIBIT 1

EXHIBIT A

UNITED STATES PATENT NO. 5,490,230

PRELIMINARY INFRINGEMENT ANALYSIS OF CLAIMS 6-8[1]

Accused Apple Products:[2] iPhone; iPhone 3G, iPhone 3GS, iPhone 4 (UMTS), iPad 3G, iPad 2 3G (UMTS)

'230 Patent Claim	Accused Apple Products
6. A method for recovering information that relates to gain information for excitation components of a speech sample, wherein the speech sample is digitized to provide a frame of information comprising at least one subframe, the method comprising the steps of:	Upon information and belief, the iPhone 4[3] performs each and every step of this claim in the course of normal use. Additionally, a user of an iPhone 4 performs each and every step of this claim in the course of such use. Furthermore, Apple has performed each and every step of this claim, has actively induced users to perform such steps, and has contributed to such use by selling the iPhone 4 and providing directions for their use. The iPhone 4 is stated to be compliant with the Universal Mobile Telecommunications System ("UMTS") Wideband Code Division Multiple Access ("WCDMA") U.S. frequency bands. *See* iPhone 4 Technical Specifications, *available at* http://www.apple.com/iphone/specs.html. Upon information and belief, the iPhone 4 supports Adaptive Multi-Rate ("AMR") speech coding. Accordingly, upon information and belief, the iPhone 4 complies with the relevant 3rd Generation Partnership Project ("3GPP") Technical Specifications governing the operation of UMTS-WCDMA and AMR compliant devices, including 3GPP Technical Specification 25.090 V6.0.0 (2004-12) "Mandatory Speech Codec speech processing functions; Adaptive Multi-Rate (AMR) speech codec; Transcoding functions" (hereinafter "T.S. 26.090 at p. __, § __"), similar versions or releases of T.S. 26.090 incorporating the references set forth below, or versions or releases of 3GPP Technical Specifications incorporated by reference in T.S.

[1] Motorola Mobility's investigation is ongoing and discovery and claim construction are not yet complete. Mobility reserves the right to supplement or amend these contentions with contentions arising under the doctrine of equivalents in response to any proposed or ordered claim construction, subsequent discovery response or production, or subsequent disclosure made pursuant to FRCP 26.

[2] This list of Accused Apple Products was created based on publicly available information. Mobility's reserves the right to supplement and/or update this list of Accused Apple Products as appropriate.

[3] This chart provides Mobility's preliminary infringement analysis based upon the iPhone 4's stated compliance with representative standards referenced herein. Upon information and belief, the analysis set forth in this chart applies equally to each of the identified Accused Apple Products that comply with those standards.

	26.090. If the preamble of this claim is construed to be limiting, then it imposes no more than the following limitation: a method for recovering information that relates to gain information for excitation components of a speech sample. In compliance with the relevant WCDMA standards, the iPhone 4 recovers information that relates to gain information for excitation components of a speech sample. *See* T.S. 26.090 at p. 6, §1 "Scope" ("This Telecommunication Standard (TS) describes the detailed mapping from input blocks of 160 speech samples in 13-bit uniform PCM format to encoded blocks of [x] bits and from encoded blocks of [x] bits to output blocks of 160 reconstructed speech samples.); *id*. at p. 40, §6 ("The function of the decoder consists of decoding the transmitted parameters (LP parameters, adaptive codebook vector, adaptive codebook gain, fixed codebook vector, fixed codebook gain) and performing synthesis to obtain the reconstructed speech. The reconstructed speech is then post-filtered and upscaled. The signal flow at the decoder is shown in figure 4.").
A) receiving at least one parameter comprising a long term energy value for the frame of information;	Upon information and belief, the iPhone 4 receives at least one parameter comprising a long term energy value for the frame of information in accordance with T.S. 26.090. Specifically, the iPhone 4 has an RF antenna, RF front end module, and transceiver hardware and software for receiving and demodulating a radio signal that includes speech coded information in compliance with the relevant WCDMA standards, including T.S. 26.090. *See* iPhone 4 Technical Specifications (stating the iPhone 4 supports U.S. WCDMA frequency bands); *see also* iPhone 4 Teardown from www.tgdaily.com (stating iPhone 4 contains a front end module and a transceiver); *see also* T.S. 26.090 at p. 40, §6 (cited above). For a given frame of information, the iPhone 4 extracts a long term energy value, $\tilde{E}(n)$, using the following equation: $\tilde{\tilde{E}}(n) = \sum_{i=1}^{4} b_i \hat{R}(n-i)$ *See* T.S. 26.090 at p. 41, § 6.1, Equation No. 66.
B) receiving excitation component definition information for at least one	Upon information and belief, the iPhone 4 receives excitation component definition information for at least one excitation component in accordance with T.S. 26.090. Specifically, to

	If the preamble of this claim is construed to be limiting, then it imposes no more than the following limitation: a method for recovering information that relates to gain information for excitation components of a speech sample. In compliance with the relevant WCDMA standards, the iPhone 4 recovers information that relates to gain information for excitation components of a speech sample. *See* T.S. 26.090 at p. 6, §1 "Scope" ("This Telecommunication Standard (TS) describes the detailed mapping from input blocks of 160 speech samples in 13-bit uniform PCM format to encoded blocks of [x] bits and from encoded blocks of [x] bits to output blocks of 160 reconstructed speech samples.); *id*. at p. 40, §6 ("The function of the decoder consists of decoding the transmitted parameters (LP parameters, adaptive codebook vector, adaptive codebook gain, fixed codebook vector, fixed codebook gain) and performing synthesis to obtain the reconstructed speech. The reconstructed speech is then post-filtered and upscaled. The signal flow at the decoder is shown in figure 4.").
A) receiving a radio signal;	The iPhone 4 receives radio signals. Specifically, the iPhone 4 has an RF antenna, RF front end module, and transceiver hardware and software for receiving a radio signal that includes speech coded information in compliance with the relevant WCDMA standards, including T.S. 26.090. *See* iPhone 4 Technical Specifications (stating the iPhone 4 supports U.S. WCDMA frequency bands); *see also* iPhone 4 Teardown from www.tgdaily.com (stating iPhone 4 contains a front end module and a transceiver); *see also* T.S. 26.090 at p. 40, §6 (cited above).
B) demodulating the radio signal to provide a recovered signal;	Upon information and belief, the iPhone 4 demodulates the radio signal to provide a recovered signal. As set forth above, the iPhone 4 has an RF antenna, RF front end module, and transceiver hardware and software for receiving a radio signal that includes speech coded information in compliance with the relevant WCDMA standards, including T.S. 26.090. *See* iPhone 4 Technical Specifications (stating the iPhone 4 supports U.S. WCDMA frequency bands); *see also* iPhone 4 Teardown from www.tgdaily.com (stating iPhone 4 contains a front end module and a transceiver); *see also* T.S. 26.090 at p. 40, §6 (cited above).
C) extracting from the recovered signal at least one parameter comprising a long term energy value for the frame of information;	Upon information and belief, the iPhone 4 extracts at least one parameter comprising a long term energy value in accordance with T.S. 26.090. Specifically, for a given frame of information, the iPhone 4 extracts a long term energy value, $\tilde{E}(n)$, using the following equation:

	$\tilde{E}(n) = \sum_{i=1}^{4} b_i \hat{R}(n-i)$ *See* T.S. 26.090 at p. 41, § 6.1, Equation No. 66.
D) extracting from the recovered signal excitation component definition information for at least one excitation component;	Upon information and belief, the iPhone 4 extracts excitation component definition information for at least one excitation component in accordance with T.S. 26.090. Specifically, to obtain the algebraic codevector ("one excitation component"), the iPhone 4 uses an algebraic codebook index to extract the positions and amplitudes of the excitation pulses ("excitation component definition information"). *See* T.S. 26.090, at p. 41, § 6.1, subsection 2 ("Decoding of the innovative codebook vector: The received algebraic codebook index is used to extract the positions and amplitudes (signs) of the excitation pulses and to find the algebraic codevector $c(n)$.").
E) processing the excitation component definition information to provide a pre-component, which pre-component has an energy value;	Upon information and belief, the iPhone 4 processes the excitation component definition information to provide a pre-component that has a pre-component energy value in accordance with T.S. 26.090. Specifically, the iPhone 4 processes the extracted position and amplitude information of the excitation pulses ("excitation component definition information") to provide the algebraic codevector *c(n)* ("a pre-component"). *See* T.S. 26.090 at p. 41, § 6.1, subsection 2. The energy value of the algebraic codevector *c(n)* is the mean innovation energy value, E_i, and can be calculated by the following equation: $E_i = 10 \log \left(\frac{1}{N} \sum_{i=0}^{N-1} c^2(i) \right)$ *See* T.S. 26.090 at p. 41, § 6.1, Equation No. 67.
F) determining a gain value that is proportional to the long term energy value and inversely proportional to the energy value; and	Upon information and belief, the iPhone 4 determines a gain value that is proportional to the long term energy value and inversely proportional to the pre-component energy value in accordance with T.S. 26.090. The quantified fixed codebook gain in the iPhone 4, $\hat{g}_c$, is determined by the following equation: $\hat{g}_c = \gamma_{gc} * g'_c$, where γ_{gc} is the fixed codebook gain correction factor and g'_c the predicted gain value. *See* T.S. 26.090 at p. 41, § 6.1, Equation No. 69. In turn, the predicted gain value in the iPhone 4, g'_c, is determined by the following equation: $g'_c = 10^{0.05(\tilde{E}(n) + \bar{E} - Ei)}$, where $\tilde{E}(n)$ is the long term energy value, and E_i is the energy

	module and a transceiver); *see also* T.S. 26.090 at p. 40, §6 (cited above).
B) excitation source means operably coupled to the RF means for receiving the speech coded information; and for:	This claim element is written in means-plus-function format, pursuant to 35 U.S. C. § 112 ¶ 6. The claimed function is "receiving the speech coded information." The structure disclosed in the '230 patent for performing the claimed function is the hardware and software of the baseband processor of a radio unit that receives the speech coded information. *See* '230 patent: Fig. 1; Fig. 2; col. 3:65-5:24; and col. 7:55-8:4. Upon information and belief, the iPhone 4 includes hardware and software that performs the claimed function and is the same or equivalent to the structure disclosed in the '230 patent. Specifically, the iPhone 4 has baseband processor hardware and software for receiving the speech coded information in compliance with the relevant WCDMA standards, including T.S. 26.090. *See* iPhone 4 Technical Specifications (stating the iPhone 4 supports U.S. WCDMA frequency bands); *see also* iPhone 4 Teardown from www.tgdaily.com (stating iPhone 4 contains an Infineon X-GOLD 616 baseband processor); *see also* X-GOLD 616 Technical Specification (stating NB-AMR as a "main feature"); *see also* T.S. 26.090 at p. 40, §6 (cited above).
1) extracting from the speech coded information at least one parameter comprising a long term energy value for a frame of information, wherein a speech sample is digitized to provide the frame of information comprising at least one subframe;	Upon information and belief, the iPhone 4 extracts at least one parameter comprising a long term energy value in accordance with T.S. 26.090. Specifically, for a given frame of information, the iPhone 4 extracts a long term energy value, $\tilde{E}(n)$, using the following equation: $\tilde{E}(n) = \sum_{i=1}^{4} b_i \hat{R}(n-i)$ *See* T.S. 26.090 at p. 41, § 6.1, Equation No. 66.
2) extracting from the speech coded information excitation component definition information for at least one excitation component;	Upon information and belief, the iPhone 4 extracts excitation component definition information for at least one excitation component in accordance with T.S. 26.090. Specifically, to obtain the algebraic codevector ("one excitation component"), the iPhone 4 uses an algebraic codebook index to extract the positions and amplitudes of the excitation pulses ("excitation component definition information"). *See* T.S. 26.090, at p. 41, § 6.1, subsection 2 ("Decoding of the innovative codebook vector: The received algebraic codebook index is used to extract the positions and amplitudes (signs) of the excitation pulses and to find the algebraic codevector $c(n)$.").
3) processing the excitation	Upon information and belief, the iPhone 4 processes the