

FILED

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
Alexandria Division

2012 AUG 14 P 4:03

CLERK US DISTRICT COURT  
ALEXANDRIA, VIRGINIA

WIAV SOLUTIONS LLC,

Plaintiff,

v.

PANTECH CO., LTD. AND PANTECH  
WIRELESS, INC.,

Defendants.

Civil Action No. 1:12 CV 905  
LO/JFA  
**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

1. Plaintiff WiAV Solutions LLC (“WiAV”), by and through its attorneys, hereby demands a jury trial and complains of Defendants Pantech Co. Ltd. and Pantech Wireless, Inc. (collectively “Defendants”)

**NATURE OF THE ACTION**

2. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.* to enjoin and obtain damages resulting from Defendants unauthorized manufacture, use, sale, offer to sell, and/or importation into the United States for subsequent use or sale of products, methods, processes, services, and/or systems that infringe one or more claims of United States Patent Nos. 6,256,606 (“the ‘606 Patent”), entitled “Silence Description Coding for Multi-rate Speech Codecs,” United States Patent No. 7,120,578 (“the ‘578 Patent”), entitled “Silence Description Coding for Multi-rate Speech Codecs,” United States Patent No. 6,507,814 (“the ‘814 Patent”), entitled “Pitch Determination Using Speech Classification and Prior Pitch Estimation,” United State Patent No. 7,266,493 (“the ‘493 Patent”), entitled “Pitch Determination Based on Weighting of Pitch Lag Candidates,” United States Patent No. 6,385,573 (“the ‘573 Patent”), entitled “Adaptive Tilt Compensation for

Synthesized Speech Residual,” United States Patent No. 6,044,069 (“the ‘069 Patent”), entitled “Power Management System for a Mobile Station,” and United States Patent No. 6,539,205 (“the ‘205 Patent”), entitled Traffic Channel Quality Estimation from a Digital Control Channel” (collectively the “Patents-in-Suit”). WiAV seeks injunctive relief to prevent Defendants from continuing to infringe the Patents-in-Suit. In addition, WiAV seeks a recovery of monetary damages resulting from Defendants past infringement of these patents.

3. This action for patent infringement involves Defendants’ manufacture, use, sale, offer for sale, and/or importation into the United States of products, methods, processes, services, systems that operate using certain speech and audio coding methods, and other mobile communication technologies, which infringe the Patents-in-Suit and which are used in mobile communications standards used in the United States, such as the Global System for Mobile (“GSM”) communications, Enhanced Data Rates for DGM Evolution (“EDGE”), and Wideband Code Division Multiple Access (“W-CDMA”).

#### **THE PARTIES**

4. Plaintiff WiAV is a limited liability company organized under the laws of Virginia with its principal place of business at 8133 Leesburg Pike, Suite 310, Vienna, VA 22182, in the judicial district of the Eastern District of Virginia.

5. Plaintiff WiAV is the lawful assignee of all right, title, and interest in and to the ‘606 Patent, the ‘578 Patent, the ‘814 Patent, the ‘493 Patent, the ‘573 Patent, the ‘069 Patent, and the ‘205 Patent.

6. On information and belief, Pantech Company, Ltd. is a foreign company organized and existing under the laws of South Korea, with its principal place of business at Peungwha Seocho Bldg., 1451-34 Seocho-Go, Seoul 137-070 South Korea.

7. On information and belief, Pantech Wireless, Inc. is a corporation organized and existing under the laws of Georgia, with its principal place of business at 5607 Glenridge Drive, Suite 500, Atlanta, GA 30342.

8. On information and belief, Pantech Company, Ltd. is the parent company of Pantech Wireless, Inc., which operates the domestic operations of Pantech Company, Ltd.

9. On information and belief, Defendants make, sell, and/or offer for sale within the United States wireless communication devices, which infringe the Patents-in-Suit.

### **JURISDICTION AND VENUE**

10. This lawsuit is an action for patent infringement arising under the patent laws of the United States, including 35 U.S.C. § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

11. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b).

12. This Court has personal jurisdiction over Defendants, and venue is proper in this district, because Defendants do business in Virginia and in this district, and infringement has occurred and continues to occur in Virginia and in this district. In addition, the Court has personal jurisdiction over Defendants because they has established minimum contacts with the forum and the exercise of jurisdiction over it would not offend traditional notions of fair play and substantial justice. On information and belief, Defendants knowingly and intentionally participates in a stream of commerce into the United States including those ultimately sold and/or offered for sale within this district. In accordance with established and distribution channels for the accused products, Defendants reasonably anticipated that the accused products would end up in this district and be sold herein.

## **FACTUAL BACKGROUND**

13. Rockwell Semiconductor Systems, Inc. (“Rockwell”) was a pioneer in the development of wireless communications technologies, and Rockwell’s technologies have been adopted as the industry standard in this field of technology. Rockwell’s innovations related to such wireless communications are protected by a valuable portfolio of patents, including the Patents-in-Suit, which are owned by WiAV and the subject of numerous licenses by market participants. In light of these facts, WiAV cannot permit the continued infringement of its patents by unlicensed market participants and will, if necessary, vigorously protect its patent rights through appropriate procedures.

14. The Patents-in-Suit are generally directed to various aspects of encoding and decoding of speech signals, reducing power consumed while in standby mode, and evaluating the quality of the traffic channel to allow more flexibility in the system, and are incorporated in the corresponding United States standards.

15. Defendants are leading suppliers of wireless communications devices (including smartphones and other mobile devices) that are compliant with certain standards and have enjoyed the success of the wireless communications market established through such standard.

16. Defendants market, make, use, sell, offer for sale, and/or import into the United States products and services that directly infringe, contributorily infringe, and/or induce others to infringe, or are used to practice processes that infringe, one or more claims of the Patents-in-Suit. Generally, Defendants’ infringing products include wireless communications devices that perform Adaptive Multi Rate (“AMR”) speech coding, use the Paging Indicator Channel (“PICH”), and/or use a Channel Quality Indicator (“CQI”), as defined by the Third Generation

Partnership Project (“3GPP”) standards. AMR speech codec, PICH, and CQI are used by the GSM, EDGE, W-CDMA, and/or W-CDMA with HSDPA communications standards used in the United States.

17. On information and belief, Defendants’ products presently known to WiAV that use one of more of the AMR speech codec, PICH, and CQI and therefore infringe the Patents-in-Suit include the Pocket, Link, Link II, Pursuit, Pursuit II, Breeze II, Breeze III, Crossover, Laser, Ease, Impact, Burst, Reveal and Swift (“Accused Products”). Defendants earn substantial revenue each year selling such products in the United States.

**COUNT I**  
**(Infringement of United State Patent No. 6,256, 606)**

18. Paragraphs 1 through 17 are incorporated by reference as if fully restated herein.

19. On July 3, 2001, the United States Patent and Trademark Office duly and legally issued the ‘606 Patent, which is in full force and effect. WiAV is the sole owner of the entire right, title, and interest in the ‘606 Patent, including the right to recover for past, present and future infringements and violations thereof.

20. Defendants make, use, sell, offer to sale, and/or import into the United States for subsequent sale or use the Accused Products identified above, which infringe, directly, and/or indirectly, claims 1-3, 7, 9, 16, and 17 of the ‘606 Patent. The ‘606 Patent relates to a multirate speech codec that performs silence description coding of a speech signal, which is disclosed in the 3GPP standard specification and mandatory for operation in a GSM, EDGE, or W-CDMA network. On information and belief, Defendants’ Accused Products include a multirate speech codec that infringes the asserted claims of the ‘606 Patent. In particular, on information and belief, Defendants’ Accused Products directly infringe those claims under 35 U.S.C. § 271(a) by performing “silence description coding” in the manner described in and required by the 3GPP

standards. The infringing silence description mode is identified in representative 3GPP specification TS 26.071 (v 8.0.0) § 5, and related specifications, as “AMR\_SID.” Because each element of claims 1-3, 7, 9, 16, and 17 of the ‘606 Patent is disclosed in the 3GPP specification, and Defendants’ Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants’ Accused Products must infringe each of the asserted claims of the ‘606 Patent. In addition, WiAV anticipates that during discovery in this action it will obtain additional non-public material, which will demonstrate Defendants’ infringement, namely Defendants’ and/or a third party’s source code.

21. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the ‘606 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including Defendants’ customers and purchasers of the Accused products. In particular, Defendants sold, offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a GSM, EDGE, or W-CDMA network, they must use an infringing AMR speech codec, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published and electronic materials and resources related to the Accused Products, Defendants actively encouraged and specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of ‘606 Patent.

22. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the ‘606 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including

their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an AMR speech codec for use in a GSM, EDGE, or W-CDMA network, which infringes the asserted claims of the '606 Patent. In addition, because the AMR speech codec is designed for use in a GSM, EDGE, or W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of the claimed invention at least because they incorporate an AMR speech codec that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations of the asserted claims of the '606 Patent, and such customers and purchasers actually directly infringed the asserted claims of '606 Patent.

23. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '606 Patent at the time they engaged in their directly and indirectly infringing activities and, in any event, were made aware of the '606 Patent on or about February 23, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.

24. As a result of Defendants' unlawful infringement of the '606 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

25. Defendants' acts of infringement of the '606 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least February 23, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use an

infringing AMR speech codec in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

**COUNT II**  
**(Infringement of United States Patent No. 7,120,578)**

26. Paragraphs 1 through 25 are incorporated by reference as if fully restated herein.

27. On October 10, 2006, the United States Patent and Trademark Office duly and legally issued the '578 Patent, which is in full force and effect. WiAV is the sole owner of the entire right, title, and interest in the '578 Patent, including the right to recover for past, present and future infringements and violations thereof.

28. Defendants make, use, sell, offer to sell, and/or import into the United States for subsequent sale or use the Accused Products identified above, which infringe, directly, and/or indirectly, claims 1, 2, and 13-15 of the '578 Patent. The '578 Patent relates to a multirate speech codec that performs silence description coding of a speech signal, which is disclosed in the 3GPP standard specification and mandatory for operation in a GSM, EDGE, or W-CDMA network. On information and belief, Defendants' Accused Products include a multirate speech codec that infringes the asserted claims of the '578 Patent. In particular, on information and belief, Defendants' Accused Products infringe those claims by performing "silence description coding" in the manner described in and required by the 3GPP standards. The infringing silence description mode is identified in 3GPP specification TS 26.071 (v 8.0.0) § 5, and related specifications, as "AMR\_SID." Because each element of claims 1, 2, and 13-15 of the '578 Patent is disclosed in the 3GPP specification, and Defendants' Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants' Accused Products must infringe each of the asserted claims of the '578 Patent. In addition, WiAV anticipates that during



discovery in this action it will obtain additional non-public material, which will demonstrate Defendants' infringement, namely Defendants' and/or a third party's source code.

29. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the '578 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including Defendants' customers and purchasers of the Accused products. In particular, Defendants sold, offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a GSM, EDGE, or W-CDMA network, they must use an infringing AMR speech codec, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published and electronic materials and resources related to the Accused Products, Defendants actively encouraged and specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of '578 Patent.

30. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the '578 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an AMR speech codec for use in a GSM, EDGE, or W-CDMA network, which infringes the asserted claims of the '578 Patent. In addition, because the AMR speech codec is designed for use in a GSM, EDGE, or W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of

the claimed invention at least because they incorporate an AMR speech codec that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations of the asserted claims of the '578 Patent, and such customers and purchasers actually directly infringed the asserted claims of '578 Patent.

31. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '578 Patent at the time they engaged in their directly and indirectly infringing activities and, in any event, were made aware of the '578 Patent on or about February 23, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.

32. As a result of Defendants' unlawful infringement of the '578 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

33. Defendants' acts of infringement of the '578 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least February 23, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use an infringing AMR speech codec in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

**COUNT III**  
**(Infringement of United States Patent No. 6,507,814)**

34. Paragraphs 1 through 33 are incorporated by reference as if fully restated herein.

35. On January 14, 200, the United States Patent and Trademark Office duly and legally issued the '814 Patent, which is in full force and effect. WiAV is the sole owner of the entire right, title, and interest in the '814 Patent, including the right to recover for past, present and future infringements and violations thereof.

36. Defendants make, use, sell, offer to sell, and/or import into the United States for subsequent sale or use the Accused Products identified above, which infringe, directly, and/or indirectly, claims 8-11, 16-19, 21, 24, 36, and 37 of the '814 Patent. The '814 Patent relates to system for encoding a speech signal by selecting a pitch lag candidate, which is disclosed in the 3GPP standard specification and mandatory for operation in a GSM, EDGE, or W-CDMA network. The pitch lag candidate is selected by favoring pitch lag candidates having a timing relationship with a previous pitch lag. On information and belief, Defendants' Accused Products select pitch lag candidates in a manner that infringes the asserted claims of the '814 Patent. In particular, on information and belief, Defendants' Accused Products infringe those claims by performing "open loop pitch analysis" in the manner described in and required by the 3GPP standards. The infringing "open loop pitch analysis" is described in representative 3GPP specification TS 26.090 (v 8.0.0) § 5.3, and related specifications, for the 10.2 kbit/s mode. Because each element of claims 8-11, 16-19, 21, 24, 36, and 37 of the '814 Patent is disclosed in the 3GPP specification, and Defendants' Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants' Accused Products must infringe each of the asserted claims of the '814 Patent. In addition, WiAV anticipates that during discovery in this action it will obtain additional non-public material, which will demonstrate Defendants' infringement, namely Defendants' and/or a third party's source code.

37. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the '814 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including Defendants' customers and purchasers of the Accused products. In particular, Defendants sold, offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a GSM, EDGE, or W-CDMA network, they must use an infringing AMR speech codec, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published and electronic materials and resources related to the Accused Products, Defendants actively encouraged and specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of '814 Patent.

38. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the '814 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an AMR speech codec for use in a GSM, EDGE, or W-CDMA network, which infringes the asserted claims of the '814 Patent. In addition, because the AMR speech codec is designed for use in a GSM, EDGE, or W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of the claimed invention at least because they incorporate an AMR speech codec that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations

of the asserted claims of the '814 Patent, and such customers and purchasers actually directly infringed the asserted claims of '814 Patent.

39. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '814 Patent at the time they engaged in their directly and indirectly infringing activities and, in any event, were made aware of the '814 Patent on or about February 23, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.

40. As a result of Defendants' unlawful infringement of the '814 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

41. Defendants' acts of infringement of the '814 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least February 23, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use an infringing AMR speech codec in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

**COUNT IV**  
**(Infringement of United States Patent No. 7,266,493)**

42. Paragraphs 1 through 41 are incorporated by reference as if fully restated herein.

43. On September 4, 2007, the United States Patent and Trademark Office duly and legally issued the '493 Patent, which is in full force and effect. WiAV is the sole owner of the

entire right, title, and interest in the '493 Patent, including the right to recover for past, present and future infringements and violations thereof.

44. Defendants make, use, sell, offer for sale, and/or import into the United States for subsequent sale or use the Accused Products identified above, which infringe, directly, and/or indirectly, claims 5-7, 9, 20-22, and 24 of the '493 Patent. The '493 Patent relates to system for encoding a speech signal by selecting a pitch lag candidate. The pitch lag candidate is selected by favoring pitch lag candidates having a timing relationship with a previous pitch lag, which is disclosed in the 3GPP standard specification and mandatory for operation in a GSM, EDGE, or W-CDMA network. On information and belief, Defendants' Accused Products select pitch lag candidates in a manner that infringes the asserted claims of the '493 Patent. In particular, on information and belief, Defendants' Accused Products infringe those claims by performing "open loop pitch analysis" in the manner described in and required by the 3GPP standards. The infringing "open loop pitch analysis" is described in representative 3GPP specification TS 26.090 (v 8.0.0) § 5.3, and related specifications, for the 10.2 kbit/s mode. Because each element of claims 5-7, 9, 20-22, and 24 of the '493 Patent is disclosed in the 3GPP specification, and Defendants' Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants' Accused Products must infringe each of the asserted claims of the '493 Patent. In addition, WiAV anticipates that during discovery in this action it will obtain additional non-public material, which will demonstrate Defendants' infringement, namely Defendants' and/or a third party's source code.

45. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the '493 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including

Defendants' customers and purchasers of the Accused products. In particular, Defendants sold, offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a GSM, EDGE, or W-CDMA network, they must use an infringing AMR speech codec, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published and electronic materials and resources related to the Accused Products, Defendants actively encouraged and specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of '493 Patent.

46. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the '493 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an AMR speech codec for use in a GSM, EDGE, or W-CDMA network, which infringes the asserted claims of the '493 Patent. In addition, because the AMR speech codec is designed for use in a GSM, EDGE, or W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of the claimed invention at least because they incorporate an AMR speech codec that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations of the asserted claims of the '493 Patent, and such customers and purchasers actually directly infringed the asserted claims of '493 Patent.

47. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '493 Patent at the time they engaged in their directly and indirectly infringing activities and, in any event, were made aware of the '493 Patent on or about February 23, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.

48. As a result of Defendants' unlawful infringement of the '493 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

49. Defendants' acts of infringement of the '493 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least February 23, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use an infringing AMR speech codec in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

**COUNT V**  
**(Infringement of United States No. 6,385,573)**

50. Paragraphs 1 through 49 are incorporated by reference as if fully restated herein.

51. On May 7, 2002, the United States Patent and Trademark Office duly and legally issued the '573 Patent, which is in full force and effect. WiAV is the sole owner of the entire right, title, and interest in the '573 Patent, including the right to recover for past, present and future infringements and violations thereof.



52. Defendants make, use, sell, offer to sale, and/or import into the United States for subsequent sale or use the Accused Products identified above that infringes, directly, and/or indirectly claims 1 and 3-5 of the '573 Patent. The '573 Patent relates to systems for processing a speech signal, which is disclosed in the 3GPP standard specification and mandatory for operation in a GSM, EDGE, or W-CDMA network. The system uses an analysis by synthesis approach and applies an adaptive tilt compensation on the signal based in part on the flatness of the signal. On information and belief, Defendants' Accused Products use an analysis by synthesis approach which applies an adaptive tilt compensation in part on the flatness of the signal, which infringes the asserted claims of the '573 Patent. In particular, on information and belief, Defendants' Accused Products infringe those claims by performing "adaptive post filtering" in the manner described in and required by the 3GPP standards. The infringing "adaptive post filtering" including a "tilt compensation filtering" is described in representative 3GPP specification TS 26.090 (v 8.0.0) § 6.2.1, and related specifications. Because each element of claims 1 and 3-5 of the '573 Patent is disclosed in the 3GPP specification, and Defendants' Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants' Accused Products must infringe each of the asserted claims of the '573 Patent. In addition, WiAV anticipates that during discovery in this action it will obtain additional non-public material, which will demonstrate Defendants' infringement, namely Defendants' and/or a third party's source code.

53. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the '573 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including Defendants' customers and purchasers of the Accused products. In particular, Defendants sold,

offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a GSM, EDGE, or W-CDMA network, they must use an infringing AMR speech codec, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published and electronic materials and resources related to the Accused Products, Defendants actively encouraged and specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of '573 Patent.

54. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the '573 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an AMR speech codec for use in a GSM, EDGE, or W-CDMA network, which infringes the asserted claims of the '573 Patent. In addition, because the AMR speech codec is designed for use in a GSM, EDGE, or W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of the claimed invention at least because they incorporate an AMR speech codec that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations of the asserted claims of the '573 Patent, and such customers and purchasers actually directly infringed the asserted claims of '573 Patent.

55. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '573 Patent at the time they engaged in their directly and indirectly infringing

activities and, in any event, were made aware of the '573 Patent on or about February 23, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.

56. As a result of Defendants' unlawful infringement of the '573 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

57. Defendants' acts of infringement of the '573 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least February 23, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use an infringing AMR speech codec in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

**COUNT VI**  
**(Infringement of United States Patent No. 6,044,069)**

58. Paragraphs 1 through 57 are incorporated by reference as if fully restated herein.

59. On March 28, 2000, the United States Patent and Trademark Office duly and legally issued the '069 Patent, which is in full force and effect. WiAV is the sole owner of the entire right, title, and interest in the '069 Patent, including the right to recover for past, present and future infringements and violations thereof.

60. Defendants make, use, sell, offer to sale, and/or import into the United States for subsequent sale or use the Accused Products identified above that infringes, directly, and/or indirectly claims 4 and 5 of the '069 Patent. The '069 Patent relates to systems for power

management by processing a paging channel. The system uses a call alert module structured to extract an alert message from transmitted paging indicators, which is disclosed in the 3GPP standard specification and mandatory for operation in a W-CDMA network. On information and belief, Defendants' Accused Products use a call alert module structured to extract an alert message from transmitted paging indicators, which infringes the asserted claims of the '069 Patent. In particular, on information and belief, Defendants' Accused Products infringe those claims by processing "Paging Indicator Channel (PICH)" in the manner described in and required by the 3GPP standards. The infringing "PICH" including "paging indicators" is described in representative 3GPP specification TS 25.211 (v 9.0.0) § 4.2, and related specifications. Because each element of claims 4 and 5 of the '069 Patent is disclosed in the 3GPP specification, and Defendants' Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants' Accused Products must infringe each of the asserted claims of the '069 Patent. In addition, WiAV anticipates that during discovery in this action it will obtain additional non-public material, which will demonstrate Defendants' infringement, namely Defendants' and/or a third party's source code.

61. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the '069 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including Defendants' customers and purchasers of the Accused products. In particular, Defendants sold, offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a W-CDMA network, they must use an infringing paging indicator, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published

and electronic materials and resources related to the Accused Products, Defendants actively encouraged and specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of '069 Patent.

62. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the '069 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an paging indicator for use in a W-CDMA network, which infringes the asserted claims of the '069 Patent. In addition, because the paging indicator is designed for use in a W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of the claimed invention at least because they incorporate an paging indicator that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations of the asserted claims of the '069 Patent, and such customers and purchasers actually directly infringed the asserted claims of '069 Patent.

63. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '069 Patent at the time they engaged in their directly and indirectly infringing activities and, in any event, were made aware of the '069 Patent on or about May 1, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.

64. As a result of Defendants' unlawful infringement of the '069 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

65. Defendants' acts of infringement of the '069 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least May 1, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use an infringing paging indicator in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

**COUNT VII**  
**(Infringement of United States Patent No. 6,539,205)**

66. Paragraphs 1 through 65 are incorporated by reference as if fully restated herein.

67. On March 25, 2003, the United States Patent and Trademark Office duly and legally issued the '205 Patent, which is in full force and effect. WiAV is the sole owner of the entire right, title, and interest in the '205 Patent, including the right to recover for past, present and future infringements and violations thereof.

68. Defendant makes, uses, sells, offers to sale, and/or imports into the United States for subsequent sale or use the Accused Products identified above that infringes, directly, and/or indirectly claims 1, 16, 18-19, and 21 of the '205 Patent. The '205 Patent relates to systems for monitoring signal quality by evaluating a control channel and traffic channel, which is disclosed in the 3GPP standard specification and mandatory for operation in a W-CDMA network. The

system applies an encoding scheme to the traffic channel based on the level of error correction needed. On information and belief, Defendants' Accused Products use an encoding scheme for determining error correction, which infringes the asserted claims of the '205 Patent. In particular, on information and belief, Defendants' Accused Products infringe those claims by "modifying the encoding scheme" using the "control channel" and "traffic channel" in the manner described in and required by the 3GPP standards. The infringing "control channel" and "traffic channel" are described in representative 3GPP specification TS 25.211 § 1, 3, 5, 6, and related specifications. Because each element of claims 1, 16, 18-19, and 21 of the '205 Patent is disclosed in the 3GPP specification, and Defendants' Accused Products are made to, and do operate in accordance with the 3GPP specification, Defendants' Accused Products must infringe each of the asserted claims of the '205 Patent. In addition, WiAV anticipates that during discovery in this action it will obtain additional non-public material, which will demonstrate Defendants' infringement, namely Defendants' and/or a third party's source code.

69. WiAV is informed and believes, and based thereon alleges, that Defendants have induced and continue to induce others to infringe the asserted claims of the '205 Patent under 35 U.S.C. § 271(b) by actively and intentionally aiding and abetting others to infringe, including Defendants' customers and purchasers of the Accused products. In particular, Defendants sold, offered for sale and/or imported the Accused Products with the intent that when their customers and purchasers use the Accused Products in a W-CDMA network, they must use an infringing system for adaptive modulation and coding mapping of transport channels onto physical channels, which is mandatory under the 3GPP standards. Moreover, through their marketing, packaging, product literature, user manuals, technical support, and other published and electronic materials and resources related to the Accused Products, Defendants actively encouraged and

specifically intended their customers and purchasers to use the Accused Products in the United States in a manner that Defendants knew to be infringing, and such customers and purchasers actually directly infringed the asserted claims of '205 Patent.

70. WiAV is informed and believes, and based thereon alleges, that Defendants have committed and continue to commit acts of contributory infringement of the asserted claims of the '205 Patent under 35 U.S.C. § 271(c) by providing the Accused Products to others, including their customers and purchasers of the Accused Products, knowing or willfully blind to the fact that these Accused Products constitute a material part of the invention of the asserted claims and are especially made and adapted with an adaptive modulation and coding mapping of transport channels onto physical channels for use in a W-CDMA network, which infringes the asserted claims of the '205 Patent. In addition, because the adaptive modulation and coding mapping of transport channels onto physical channels is designed for use in a W-CDMA network, there is no substantial non-infringing use. In particular, the Accused Products constitute a material part of the claimed invention at least because they incorporate an adaptive modulation and coding mapping of transport channels onto physical channels that is used by Defendants' customers and purchasers of the Accused Products to perform all of the limitations of the asserted claims of the '205 Patent, and such customers and purchasers actually directly infringed the asserted claims of '205 Patent.

71. WiAV is informed and believes, and based thereon alleges, that Defendants were aware of the '205 Patent at the time they engaged in their directly and indirectly infringing activities and, in any event, were made aware of the '205 Patent on or about May 1, 2012 when WiAV contacted and attempted to negotiate terms of a license with each of the Defendants.



72. As a result of Defendants' unlawful infringement of the '205 Patent, WiAV has suffered and will continue to suffer damage. WiAV is entitled to recover from Defendants the damages adequate to compensate for such infringement, which have yet to be determined.

73. Defendants' acts of infringement of the '205 Patent herein have been made with full knowledge of WiAV's rights in the patent since at least May 1, 2012. On information and belief, Defendants have acted and is continuing to act despite an objectively high likelihood that its actions constituted direct and/or indirect infringement of a valid patent, and, on information and belief, Defendants knew or should have known of that objectively high risk as evidenced, at the very least, by Defendants' knowledge that their products are made to use the adaptive modulation and coding schemes in accordance with the standard in violation of WiAV's patent. Defendants' acts herein constitute willful and deliberate infringement, entitling WiAV to enhanced damages under 35 U.S.C. § 284 and reasonable attorney fees and costs.

#### **PRAYER FOR RELIEF**

Wherefore, WiAV prays for a Judgment from this Honorable Court in favor of WiAV and against Defendants as follows:

1. That the '606 Patent, the '578 Patent, the '814 Patent, the '493 Patent, the '573 Patent, the '069 patent, and the '205 Patent are valid and enforceable;
2. That Defendants have infringed, directly and/or indirectly, the '606 Patent, the '578 Patent, the '814 Patent, the '493 Patent, the '573 Patent, the '069 patent, and the '205 Patent;
3. An order enjoining Defendants and their affiliates, subsidiaries, officers, directors, employees, agents, representatives, licensees, successors, assigns, and all those acting for them and on their behalf, or acting in concert with them directly or indirectly, from further acts of

infringement of the '606 Patent, the '578 Patent, the '814 Patent, the '493 Patent, the '573 Patent, the '069 patent, and the '205 Patent;

4. A full accounting by Defendants and awards and damages to WiAV for Defendants' infringement of the '606 Patent, the '578 Patent, the '814 Patent, the '493 Patent, the '573 Patent, the '069 patent, and the '205 Patent, including enhanced damages pursuant to 35 U.S.C. § 284, together with pre- and post-judgment interest, in an amount according to proof;

5. Adjudge that this case to be "exceptional" within the meaning of 35 U.S.C. § 285, entitling WiAV to an award of its reasonable attorneys' fees, expenses, and costs; and

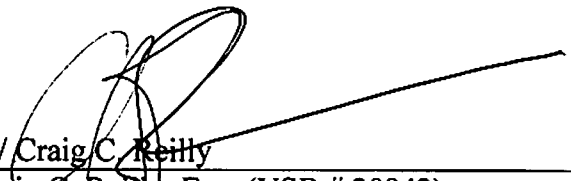
6. A grant of such other and further equitable or legal relief as the Court deems proper.

**DEMAND FOR JURY TRIAL**

WiAV hereby demands trial by jury on all issues so triable.

Respectfully submitted,

Dated: August 14, 2012

  
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