

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC., HTC CORPORATION, HTC AMERICA, INC., MICROSOFT CORPORATION, MICROSOFT MOBILE OY, MICROSOFT MOBILE INC., SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC., AND ZTE (USA) INC.,

Petitioner,

v.

EVOLVED WIRELESS LLC,
Patent Owner.

Case IPR2016-01208¹
Patent 7,746,916 B2

PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

¹ IPR2016-01277 has been consolidated with this proceeding.

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| | A. “a code sequence generator”..... | 3 |
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| III. | Zhuang327 discloses “a code sequence generator for generating a code sequence having a second length by . . . performing a circular shift to the code sequence having the second length” [Grounds 1a, 1b, and 1c] | 13 |
| | A. EW does not dispute that Zhuang327 discloses “a code sequence generator” even under EW’s narrow interpretation..... | 13 |
| | B. Under the correct construction, EW does not dispute that Zhuang327 satisfies the claims. | 13 |
| IV. | The combination of Zhuang327 and Hou satisfies the claims and Petitioner has articulated sufficient reasons to combine or modify Zhuang327 with Hou [Grounds 2a and 2b] | 15 |
| | A. EW does not dispute that the combined teaching of Zhuang327 and Hou satisfies the claims even under EW’s narrow construction | 15 |
| | B. Petitioner has articulated sufficient reasons supported by expert testimony to combine or modify Zhuang327 with Hou while EW, in contrast, bases its non-combinability contentions on unsupported attorney argument | 16 |
| | C. The alternative equivalence argument advanced with respect to combining the teachings of Zhuang327 with those of Hou is uncontested | 19 |
| V. | Conclusion | 21 |

EXHIBIT LIST

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|------------|--|
| APPLE-1001 | U.S. Patent No. 7,746,916 to Han, et al. (“the ‘916 Patent”) |
| APPLE-1002 | Excerpts from the Prosecution History of the ‘916 Patent (“the Prosecution History”) |
| APPLE-1003 | Declaration of Jonathan Wells |
| APPLE-1004 | Curriculum Vitae of Jonathan Wells |
| APPLE-1005 | Definitions of terms “acquire,” “generate” and “by” in American Heritage® Dictionary of the English Language, Fourth Edition, Copyright © 2000 by Houghton Mifflin Harcourt Publishing Company |
| APPLE-1006 | U.S. Patent No. 8,340,232 to Ding <i>et al.</i> (“Ding”) |
| APPLE-1007 | U.S. Patent No. 7,599,327 to Zhuang <i>et al.</i> (“Zhuang327”) |
| APPLE-1008 | Excerpts from the Prosecution History of Zhuang327 |
| APPLE-1009 | Popovic, “ <i>Generalized chirp-like polyphase sequences with optimum correlation properties</i> ”, IEEE Trans. On Information Theory, vol. 38, pp. 1406-1409, July 1992 (“Popovic”) |
| APPLE-1010 | Declaration of Mr. Gerard Grenier of IEEE |
| APPLE-1011 | U.S. Patent No. 8,116,195 to Hou <i>et al.</i> (“Hou”) |
| APPLE-1012 | U.S. Patent No. 7,426,175 to Zhuang <i>et al.</i> (“Zhuang175”) |
| APPLE-1013 | [Reserved] |
| APPLE-1014 | [Reserved] |
| APPLE-1015 | [Reserved] |
| APPLE-1016 | [Reserved] |

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- APPLE-1017 N. Abramson, "THE ALOHA SYSTEM—Another alternative for computer communications," *Proceedings of the Fall Joint Computer Conference*, pp. 281-5, Nov. 1970
- APPLE-1018 3GPP TS 25.213 V6.4.0 (2005-09), "3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Spreading and modulation (FDD) (Release 6)"
- APPLE-1019 3GPP TS 25.211 V6.6.0 (2005-09), "3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical channels and mapping of transport channels onto physical channels (FDD) (Release 6)"
- APPLE-1020 D.C. Chu, "Polyphase codes with good periodic correlation properties," *IEEE Trans. Information Theory*, vol. 18, pp. 531–532, July 1972
- APPLE-1021 3GPP TS 25.201 V3.0.0 (1999-10), "3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical layer - General description (3G TS 25.201 version 3.0.0)"
- APPLE-1022 3GPP TS 36.211 V8.0.0 (2007-09), "3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation (Release 8)"
- APPLE-1023 "Defendants' Preliminary Identification of Terms Needing Construction and Proposed Constructions," from Case Nos. 15-542-SLR-SRF, 15-543-SLR-SRF, 15-544-SLR-SRF, 15-545-SLR-SRF, 15-546-SLR-SRF, 15-547-SLR-SRF filed in N.D. Del.

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- APPLE-1024 “Evolved Wireless’s Identification of Claim Terms and Proposed Constructions” from Case Nos. 15-542-SLR-SRF, 15-543-SLR-SRF, 15-544-SLR-SRF, 15-545-SLR-SRF, 15-546-SLR-SRF, 15-547-SLR-SRF filed in N.D. Del.
- APPLE-1025 IEEE 802.16-2004 Standard, entitled “*IEEE Standard for Local and Metropolitan Area Networks Part 16: Air Interface for Fixed Broadband Wireless Access Systems*” (“IEEE802.16-2004”)
- APPLE-1026 Declaration of Mr. David Ringle for IEEE802.16-2004
- APPLE-1027 U.S. Patent No. 7,400,573 to Sundstrom *et al.* (“Sundstrom”)
- APPLE-1028 “Joint Claim Construction Statement,” filed on May 17th, 2016, from Case Nos. 15-542-SLR-SRF, 15-543-SLR-SRF, 15-544-SLR-SRF, 15-545-SLR-SRF, 15-546-SLR-SRF, 15-547-SLR-SRF filed in N.D. Del.
- APPLE-1029 U.S. Patent No. 7,701,919 to Ah Lee (“Ah Lee”)
- APPLE-1030 U.S. Patent No. 7,693,924 Cho *et al.* (“Cho”)
- APPLE-1031 Motorola, Inc. 2004 Annual Report to Stockholders
- APPLE-1032 WCDMA for UMTS: Radio Access for Third Generation Communications, Holma and Toskala, 3rd ed, Wiley and Sons, Ltd., 2004
- APPLE-1033 Declaration of Mr. Gerard Grenier for APPLE-1020 (*served, not filed*)
- APPLE-1034 Declaration of Mr. Mel DeSart for APPLE-1017 and APPLE-1032 (*served, not filed*)

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