

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., AND HP INC.,
Petitioners

v.

XR COMMUNICATIONS, LLC, D/B/A VIVATO TECHNOLOGIES,
Patent Owner

IPR2022-00367
Patent No. 10,715,235

PATENT OWNER RESPONSE

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Patent Owner's Exhibit List

| Exhibit No. | Description |
|--------------------|--|
| 2001 | Complaint, <i>XR Communications v. Apple Inc.</i> , W.D. Tex. Case No. 21-cv-00620-ADA |
| 2002 | Complaint, <i>XR Communications v. HP Inc.</i> , W.D. Tex. Case No. 21-cv-00694-ADA |
| 2003 | Scheduling Order, <i>XR Communications v. Apple Inc.</i> , W.D. Tex. Case No. 21-cv-00620-ADA, Dkt. No. 27 (W.D. Tex., Jan. 13, 2022) |
| 2004 | Scheduling Order, <i>XR Communications v. HP Inc.</i> , W.D. Tex. Case No. 21-cv-00694-ADA, Dkt. No. 24 (W.D. Tex., Jan. 13, 2022) |
| 2005 | Notice of Agreed Extension of Deadline, <i>XR Communications v. Apple Inc.</i> , W.D. Tex. Case No. 21-cv-00620-ADA, Dkt. No. 27 (W.D. Tex., Jan. 13, 2022) |
| 2006 | Notice of Agreed Extension of Deadline, <i>XR Communications v. HP Inc.</i> , W.D. Tex. Case No. 21-cv-00694-ADA, Dkt. No. 24 (W.D. Tex., Jan. 13, 2022) |
| 2007 | Exhibit A-14 to Defendants' Preliminary Invalidation Contentions in <i>XR Communications v. Apple Inc.</i> , W.D. Tex. Case No. 21-cv-00620-ADA and <i>XR Communications v. HP Inc.</i> , W.D. Tex. Case No. 21-cv-00694-ADA |
| 2008 | Excerpts of Defendants' Preliminary Invalidation Contentions in <i>XR Communications v. Apple Inc.</i> , W.D. Tex. Case No. 21-cv-00620-ADA and <i>XR Communications v. HP Inc.</i> , W.D. Tex. Case No. 21-cv-00694-ADA |
| 2009 | Claim Construction Order, <i>XR Comm'ns LLC v. Cisco Sys., Inc.</i> , Case No. 6:21-cv-00623-ADA, Dkt. No. 56 (W.D. Tex. Sept. 30, 2022) |
| 2010 | Declaration of Branimir Vojcic, D.Sc. |

I. Introduction

The Petition challenges claims 8-14 of U.S. Patent No. 10,715,235 (Ex. 1001). The Petition argues that claims 8-12 are obvious in view of Burke, and that dependent claims 13 and 14 are obvious in view of Burke combined with Schull. But the Petition's theory for claims 8-12 fails under the law of single-reference obviousness, and this failure as to independent claim 8 also applies to dependent claims 13 and 14. Each ground therefore fails to establish invalidity.

Each challenged claim of the '235 patent requires at least: (1) receiving a first signal transmission from a remote station via *a first antenna element of an antenna*; (2) receiving a second signal transmission from the remote station via *a second antenna element of the antenna*; and (3) receiving the first / second transmissions via the first / second antenna elements occur *simultaneously*. Petition argues this would be obvious in view of Burke's mobile station. But Burke's mobile station uses an antenna with only a single antenna element—not two antenna elements, as required by the challenged claims. Likewise, Burke does not teach or suggest receiving a first / second signal transmission at the first / second antenna elements, respectively. Nor does Burke teach or suggest that the reception occurs simultaneously. Lacking these disclosures, Petitioners argue that modifying Burke's mobile station to use an antenna array to meet every requirement of the challenged claims would be obvious. But Petitioners' arguments are driven by hindsight and an

improper attempt to fit Burke’s different system into the challenged claims by using the ’235 specification and claims as a roadmap. Petitioners also fail to show that, of all the possible techniques available, a POSITA would be motivated or understand how to modify Burke’s system to perform as required in the challenged claims with a reasonable expectation of success. Petitioners’ motivation to combine arguments are conclusory and rely on impermissible hindsight.

II. ’235 Patent and Challenged Claims

A. Summary of ’235 patent (Ex. 1001)

The ’235 Patent (Ex. 1001) is entitled “Directed wireless communication” and relates to “a multi-beam directed signal system [] implemented to communicate over a wireless communication link via an antenna assembly with client devices.” ’235 patent at 3:11-15. The ’235 patent focuses on updating the spatial distribution of the beams based on feedback information. EX-2010, Declaration of Branimir Vojcic, D.Sc. (“Vojcic Decl.”), ¶¶26-31. The ’235 Patent describes systems that operate in the field of wireless communications, including “WiFi” networks that operate in accordance with “IEEE 802.11” standards. *Id.* ¶ 26. The ’235 Patent generally relates to “beamforming,” which is depicted in several figures, including Figures 2, 3, 5, 6, 12, 14, and 15. *Id.*

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