

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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RUCKUS WIRELESS, INC., ARRIS SOLUTIONS, INC.,  
NETGEAR, INC., and BELKIN INTERNATIONAL, INC.  
Petitioner

v.

XR COMMUNICATIONS, LLC d/b/a VIVATO TECHNOLOGIES  
Patent Owner

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IPR2018-01017  
Patent 7,062,296 B2

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Before BARBARA A. PARVIS, TERRENCE W. MCMILLIN, and  
JAMES J. MAYBERRY, *Administrative Patent Judges*.

PARVIS, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision  
Determining All Challenged Claims Unpatentable  
Denying Patent Owner's Motion to Amend  
*35 U.S.C. § 318(a)*

## I. INTRODUCTION

Ruckus Wireless, Inc., ARRIS Solutions, Inc., Netgear, Inc., and Belkin International, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims, 1, 2, 4–7, 17, 18, 20–23, 33, and 35–38 (“the challenged claims”) of U.S. Patent No. 7,062,296 B2 (Ex. 1001, “the ’296 Patent”).<sup>1</sup> XR Communications, LLC d/b/a Vivato Technologies (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). Upon consideration of the parties’ contentions and supporting evidence, we instituted an *inter partes* review pursuant to 35 U.S.C. § 314, as to the challenged claims of the ’296 Patent. Paper 12 (“Inst. Dec.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 24, “PO Resp.”), and a Motion to Amend (Paper 25, “Mot. to Amend”). Petitioner filed a Reply (Paper 31, “Pet. Reply”) and an Opposition to Patent Owner’s Motion to Amend (Paper 32, “MTA Opp.”). Patent Owner filed a Sur-Reply (Paper 35, “PO Sur-Reply”) and a Reply to Petitioner’s Opposition to the Motion to Amend (Paper 34, “MTA Reply”). Petitioner filed a Sur-Reply to Patent Owner’s Reply to the Opposition to the Motion to Amend (Paper 40, “MTA Sur-Reply”). A transcript of the hearing held on July 19, 2019, has been entered into the record as Paper 43 (“Tr.”).

This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has demonstrated by a preponderance of evidence that the challenged claims of the ’296 Patent are unpatentable. Additionally, we deny Patent Owner’s Motion to Amend.

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<sup>1</sup> Petitioner omits claim 6 from certain listings of the challenged claims (*see, e.g.*, Pet. 1), but presents contentions for claim 6 (*id.* at 56–58). We treat Petitioner’s omission as a typographical error.

A. *Related Matters*

As required by 37 C.F.R. § 42.8(b)(2), each party identifies judicial and administrative matters that would affect, or be affected by, a decision in this proceeding. In particular, the parties inform us that the '296 Patent is the subject of district court proceedings as follows: *XR Communications, LLC d/b/a Vivato Technologies v. ARRIS International plc et al.*, 8-18-cv-00192 (C.D. Cal.), filed February 2, 2018; *XR Communications, LLC d/b/a Vivato Technologies v. Aruba Networks, Inc.*, 2-17-cv-02945 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. Newo Corp. d/b/a Amped Wireless*, 5-17-cv-00744 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. ASUS Computer International et al.*, 2-17-cv-02948 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. Cisco Systems, Inc.*, 2-17-cv-02951 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. Extreme Networks, Inc.*, 2-17-cv-02953 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. NETGEAR, Inc.*, 2-17-cv-02959 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. Ruckus Wireless, Inc.*, 2-17-cv-02961 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. Ubiquiti Networks, Inc.*, 2-17-cv-02968 (C.D. Cal.), filed April 19, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. Belkin International, Inc.*, 8-17-cv-00674 (C.D. Cal.), filed April 13, 2017; *XR Communications, LLC d/b/a Vivato Technologies v. D-Link Systems, Inc.*, Case No. 8:17-cv-00596 (C.D. Cal.), filed April 3, 2017; and *XR Communications, LLC d/b/a Vivato Technologies v. Xirrus, Inc.*, 3-17-cv-00675 (C.D. Cal.), filed April 3, 2017. Pet. 2–3; Paper 4, 1–4.

The parties further state the '296 Patent is the subject of other petitions for *inter partes* review in IPR2018-00725 and IPR2018-00764. *Id.* Final Written Decisions were entered in both those proceedings in September 2019.

*B. The '296 Patent*

The '296 Patent is directed to a method and apparatus for allowing a wireless communication system using a smart antenna to cause a receiving device to switch from one transmitted beam to another transmitted beam. Ex. 1001, 1:15–20. According to the '296 Patent, in wireless communications that use smart antennas, a receiving device has difficulty switching from one beam to another beam because the smart antenna produces narrower, directed beams as compared to conventional, omni-directional antennas. *Id.* at 2:25–31.

Figure 1 of the '296 Patent is reproduced below.

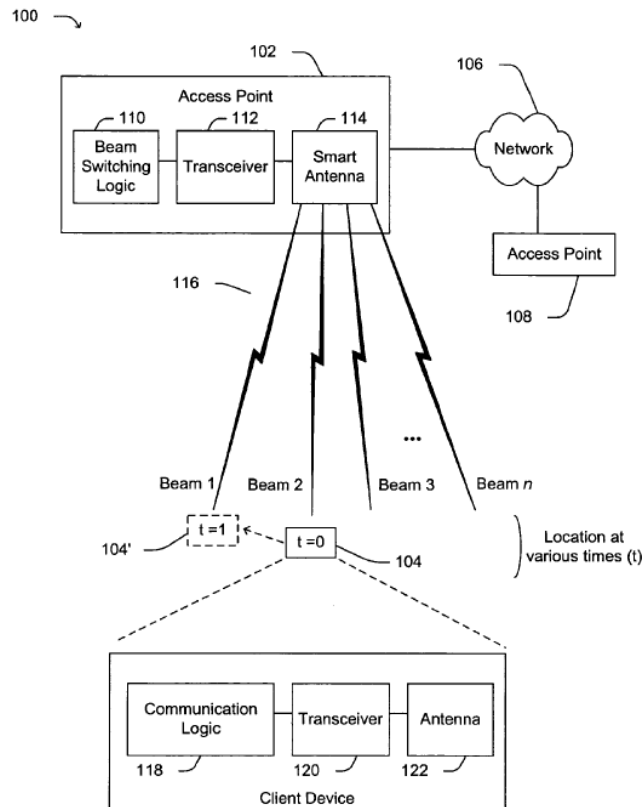


Fig. 1

Figure 1 of the '296 Patent, above, illustrates a block diagram of wireless communications system 100 having access point 102 in communication with client 104 over one of main beams 116. Ex. 1001, 5:1–3. As shown in Figure 1 of the '296 Patent, access point 102 includes beam switching logic 110, smart antenna 114, and transceiver 112, which is coupled to beam switching logic 110 and smart antenna 114. *Id.* at 5:3–6, Fig. 1. Smart antenna 114 transmits main beams 116 in correspondence with transmit signals output by transceiver 112 and receives signals transmitted by client 104. *Id.* at 5:6–16.

Access point 102 is configured to cause receiving client 104 to switch between main beams 116. *Id.* at 4:61–65. In particular, beam switching logic 110 detects the location of client 104. *Id.* at 5:47–49. When beam

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