

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZTE (USA), INC. AND
SAMSUNG ELECTRONICS CO., LTD.,
Petitioners

v.

BELL NORTHERN RESEARCH, LLC,
Patent Owner

Case: IPR2019-01365
U.S. Patent No. 7,039,435

PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

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I. INTRODUCTION

Bell Northern Research, LLC's ("BNR") arguments in its Response (Paper 19) should be rejected and the claims found unpatentable for at least the reasons set forth in the record, including the additional reasons and evidence discussed below.

II. CLAIM CONSTRUCTION

Petitioner proposed two possible interpretations of the term "position to a communications tower," recited in claim 1.

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| First interpretation | "transmit signal strength of a communications path between the communications tower and the portable cell phone." (Petition, 10-12; Ex. 1003, ¶¶33-34.) ¹ |
| Second interpretation | Plain and ordinary meaning, where a "position" is simply a location or distance relative to another object. (Petition, 12-13; Ex. 1003, ¶35.) |

The Petition demonstrates the unpatentability of claim 1 under both the first interpretation (Grounds 1-4) and the second interpretation (Ground 5). (Petition, 5-6, 11-13; Ex. 1003, ¶¶34-35.)

¹ All citations, unless otherwise noted, are to this IPR2019-01365 record initiated by ZTE (USA), Inc. (termination pending), to which Petitioner was joined. (Paper 25, 5-7.) Petitioner Samsung's petition and supporting evidence are substantially identical to those submitted in this proceeding. *See* IPR2020-00697, Paper 1 at 1.

The Board agreed that this term encompasses the first interpretation and “may also encompass [the second interpretation] . . . which appears to fall within the words of the claim.” (Paper 13 (“Decision”), 17-18.) The Board added, “[w]e will further consider the scope of this phrase during institution of this proceeding.” (*Id.*, 18.) BNR agrees with Petitioner’s first interpretation (Response, 2) but disagrees with both Petitioner and the Board with respect to the second interpretation (*id.*, 3-5, 8). As explained below, BNR’s position is misplaced and should be rejected. (Ex. 1030, ¶¶8-10.)²

BNR’s arguments do not overcome the intrinsic and extrinsic evidence supporting Petitioner’s position that the subject claim term encompasses the second interpretation. (Petition, 12-13; Ex. 1003, ¶135; Ex. 1001, 2:18-21, 3:4-6, 6:33-37; Ex. 1019, 46-51; Ex. 1014, 4; Ex. 1017, 3; Ex. 1030, ¶¶11-12.) Indeed, the evidence supplied by BNR and relied upon by Dr. Horenstein confirms that the (i) transmit signal strength and (ii) location or distance aspects of “position to a communications tower” (Response, 3-5; Ex. 2022, ¶¶38, 43-45) fall within the scope of this term.

² While Petitioner does not agree with BNR’s slightly different definition of a POSITA (Response, 1), Dr. Wells’ opinions are equally applicable under both definitions. (Ex. 1031, ¶¶6-7.)

For example, to support BNR’s argument that “position” be limited to signal strength, Dr. Horenstein selects certain examples from the Lee textbook (Ex. 2003). (Response, 4-5; Ex. 2022, ¶¶43-44.) But Dr. Horenstein ignores the disclosures in Lee that show that “position to a communications tower” is related to geographical distance and position. For instance, Lee teaches how mobile cell sites are designed and cell areas are configured. In planning such cell sites, “cell boundaries are defined” around communication towers. (Ex. 2003, 9.) These boundaries are defined in terms of a cell radius and a distance between two adjacent frequency-reuse cells. (*Id.*, 9-10.) As such, Lee does not support the notion that the claimed “position” is limited to transmit signal strength to the exclusion of any relationship to location or distance as advocated by BNR. Rather, Lee informs a POSITA that the term also relates to location or distance to a communication tower.³ (Ex. 1030,

³ BNR’s attempt to limit any interpretation of the term to “account[] for obstructions between the phone and the tower” (Response, 8) should also be rejected as it impermissibly attempts to further narrow the first interpretation by adding unclaimed subject matter. (Ex. 2023, 89:16-90:2.) *Continental Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797-98 (Fed. Cir. 2019) (finding that importing a limitation from the specification into the claim is improper).

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