United States Court of Appeals for the Federal Circuit

NORTHPEAK WIRELESS, LLC,

Plaintiff-Appellant

v.

3COM CORPORATION, HEWLETT-PACKARD COMPANY, D-LINK SYSTEMS, INC., FUJITSU AMERICA, INC., GATEWAY, INC., ACER AMERICA CORPORATION, ASUS COMPUTER INTERNATIONAL CORPORATION, BELKIN INTERNATIONAL, INC., U.S. ROBOTICS CORPORATION, BUFFALO TECHNOLOGY (USA), INC., BUFFALO AMERICAS, INC., DELL, INC., SONICWALL, INC., NETGEAR, INC., SMC NETWORKS, INC., SONY ELECTRONICS, INC., SONY COMPUTER ENTERTAINMENT AMERICA LLC, TOSHIBA AMERICA INFORMATION SYSTEMS, INC., TRENDNET SYSTEMS, INC., TRENDWARE INTERNATIONAL, INC., ZONET USA CORPORATION, VIEWSONIC CORPORATION, ZYXEL COMMUNICATIONS, INC.,
Defendants-Appellees

INTEL CORPORATION,
Defendant-Appellee

2016-1477, 2016-1481

Appeals from the United States District Court for the Northern District of California in Nos. 3:09-cv-00602-SI, 3:15-cv-05273-SI, Judge Susan Y. Illston.

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Decided: December 28, 2016

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CHRISTIAN JOHN HURT, Nix Patterson & Roach LLP, Dallas, TX, argued for plaintiff-appellant. Also represented by DEREK TOD GILLILAND, Daingerfield, TX.

CHAD S. CAMPBELL, Perkins Coie LLP, Phoenix, AZ, argued for all defendants-appellees. Defendant-appellee Intel Corporation also represented by TYLER R. BOWEN, AARON MATZ; DAN L. BAGATELL, Hanover, NH; NANCY CHENG, Palo Alto, CA.

DAVID JACK LEVY, Morgan, Lewis & Bockius LLP, Houston, TX, for defendants-appellees 3COM Corporation, Hewlett-Packard Company. Also represented by THOMAS R. DAVIS.

DUNCAN PALMATIER, Law Offices of S.J. Christine Yang, Fountain Valley, CA, for defendants-appellees D-Link Systems, Inc., ZyXEL Communications, Inc. Also represented by VICTORIA D. HAO, CHRISTINE H. YANG.

RUDOLPH KIM, Morrison & Foerster LLP, Palo Alto, CA, for defendant-appellee Fujitsu America, Inc. Also represented by DANIEL CLAYTON HUBIN.

MICHAEL CHAOCHA TING, TechKnowledge Law Group LLP, Redwood City, CA, for defendants-appellees Gateway, Inc., Acer America Corporation.

ALFREDO A. BISMONTE, Beck, Ross, Bismonte & Finley LLP, San Jose, CA, for defendant-appellee ASUS Com-

puter International Corporation. Also represented by JEREMY DUGGAN.

RYAN KEN YAGURA, O'Melveny & Myers LLP, Los Angeles, CA, for defendant-appellee Belkin International, Inc. Also represented by JOHN KEVIN MURRAY, VISION WINTER.

DAVID SPENCER BLOCH, Winston & Strawn LLP, San Francisco, CA, for defendant-appellee U.S. Robotics Corporation. Also represented by DAVID P. ENZMINGER, Menlo Park, CA.

RUSSELL W. FAEGENBURG, Lerner, David, Littenberg, Krumholz & Mentlik LLP, Westfield, NJ, for defendants-appellees Buffalo Technology (USA), Inc., Buffalo Americas, Inc.

JOHN D. HAYNES, Alston & Bird LLP, Atlanta, GA, for defendants-appellees Dell, Inc., Sonicwall, Inc. Also represented by NICHOLAS TANG TSUI; BRADY COX, Dallas, TX; RYAN W. KOPPELMAN, East Palo Alto, CA.

RYAN R. SMITH, Wilson, Sonsini, Goodrich & Rosati, PC, Palo Alto, CA, for defendant-appellee Netgear, Inc.

RICHARD C. VASQUEZ, Vasquez Benisek & Lindgren, LLP, Lafayette, CA, for defendant-appellee SMC Networks, Inc. Also represented by ERIC W. BENISEK, JEFFREY T. LINDGREN, ROBERT MCARTHUR, STEPHEN C. STEINBERG.

LIONEL M. LAVENUE, Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Reston, VA, for defendants-appellees Sony Electronics, Inc., Sony Computer Entertainment America LLC. Also represented by DANIEL CRAIG COOLEY; KARA A. SPECHT, Atlanta, GA.

JOHN JOSEPH FELDHAUS, Foley & Lardner LLP, Washington, DC, for defendant-appellee Toshiba America Information Systems, Inc. Also represented by PAVAN KUMAR AGARWAL.

JEN-FENG LEE, LT Pacific Law Group LLP, City Of Industry, CA, for defendants-appellees Trendnet Systems, Inc., Trendware International, Inc., Zonet USA Corporation.

DANA M. HERBERHOLZ, Parsons Behle & Latimer, Boise, ID, for defendant-appellee Viewsonic Corporation.

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Before PROST, *Chief Judge,* CLEVENGER, and CHEN, *Circuit Judges.*

CLEVENGER, *Circuit Judge.*

In November 2008, Plaintiff NorthPeak Wireless, LLC ("NorthPeak") asserted U.S. Patent Nos. 4,977,577 ("the '577 patent) and 5,987,058 ("the '058 patent") against a number of accused infringers who market wireless communication products supporting IEEE 802.11 (commonly referred to as "WiFi"). Among the accused infringers were many customers using chips designed by Intel Corporation ("Intel"), who moved successfully to intervene in the litigation in March 2009.

In September 2009, during the pendency of the district court litigation, Intel filed its first *ex parte* reexamination request for both the '577 and '058 patents. The U.S. Patent & Trademark Office ("PTO") found the claims of the '058 patent unpatentable but upheld the patentability of the '577 patent claims. Intel filed a second *ex parte* reexamination request for the '577 patent in August 2013, and the PTO again upheld the challenged claims' patentability. As such, the '577 patent claims remained in play at the district court.

On August 28, 2015, the district court issued its order construing the disputed claims terms for the '577 patent. *Northpeak Wireless, LLC v. 3Com Corp.*, No. 09-CV-00602-SI, 2015 WL 5117020 (N.D. Cal. Aug. 28, 2015) ("Claim Construction Order"). Following the district court's order, NorthPeak entered into separate stipulations of non-infringement with the two groups of accused infringers—Intel, along with the accused infringers using Intel chips, and those not using Intel chips. The substance of both stipulations is essentially the same: under the district court's constructions of several terms, North-Peak could not prove infringement of the asserted claims of the '577 patent. The district court entered final judgment of non-infringement as to both groups of accused infringers (now, collectively, "the Appellees").

NorthPeak appeals the district court's constructions of four claim terms/groupings: (1) "register"; (2) "[preamble/address/data] register"; (3) "storing/stored"; and (4) three related means-plus-function terms. Pursuant to the parties' stipulations—and as confirmed during oral argument—if we affirm any one of the district court's constructions for "register," "[preamble/address/data] register," or "storing/stored," we must also affirm the judgments of non-infringement.

For the following reasons, we affirm.

I

The '577 patent relates to "a wireless warning system for use in a large office building, and more particularly a wireless fire warning and detection system which employs spread spectrum technology with high reliability for continuously monitoring the building." '577 patent col. 1 ll. 5–9. "Spread spectrum" technology, in essence, allows for improved radiofrequency ("RF") signal transmission between remote locations by transforming or "spreading" the transmitted data over a broader range of RF frequencies. A broader signal better resists interference and

interception. When the spread signal arrives at its intended location, the receiver "despreads" the signal to recover the original data. The '577 patent is not directed specifically to the concept of using spread spectrum technology, but describes an application of the technology for security systems in large buildings.

In general, as described in the specification, decentralized sensors (capable of detecting fire, smoke, unauthorized access, etc.) are located throughout a given space—*e.g.*, in different rooms of an office building. These sensors are coupled to spread spectrum transmitters, which send data to one or more spread spectrum receivers. The receivers communicate with a centralized computer, which can display the data to the user.

More specifically, the sensor data are passed to the transmitters to be sent out as part of a "packet," comprising three components: (1) a preamble, (2) an address, and (3) the actual sensor data. The preamble acts to synchronize the transmitter with the receiver (or tell the receiver to turn on so that it can receive the signal). The address identifies which transmitter is sending the data packet. The data detail whatever condition the sensor may have detected (*e.g.*, heat or smoke). The three components are initially stored in "registers" in the transmitter as series of binary "bits"— "0"s or "1"s. These bits comprise the base information to be sent. The transmitter converts each of these bit components into broader "chips"—the spread out signal—by applying a "chip code." The transmitter broadcasts the spread chip signal to the receiver. The receiver contains an identical chip code that it uses to "despread" the chip signal to recover the original bit data.

NorthPeak's asserted claims—claims 9, 12, 13, and 14—are largely directed to the circuitry of the transmitters that effects the spreading transformation.

II

"The ultimate construction of the claim is a legal question and, therefore, is reviewed de novo." *Info-Hold, Inc. v. Applied Media Techs. Corp.*, 783 F.3d 1262, 1265 (Fed. Cir. 2015); *see also Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) ("[W]hen the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the judge's determination will amount solely to a determination of law, and the Court of Appeals will review that construction *de novo*.").

We begin with the parties' dispute regarding the term "register." The district court, adopting a dictionary definition cited by NorthPeak during the second *ex parte* reexamination, construed "register" to mean "a small, named region of high speed memory located within a microprocessor or any electronic device capable of storing binary data. A register is usually large enough to hold only a few bytes of information and is referenced in programs by a name, rather than an address." Claim Construction Order at *5–6. Agreeing in large part with the Appellees' arguments, the district court explained that this supporting dictionary definition—rather than the actual construction NorthPeak proposed during reexamination— was necessary to capture NorthPeak's arguments distinguishing certain types of memory found in the prior art. The district court, however, declined Appellees' proposal to identify and exclude the specific prior art memory types in the formal construction, *i.e.*, "regular memory," random access memory ("RAM"), or memory buffers. Claim Construction Order at *6 ("[D]efining a term by a non-exhaustive list of the things that it is not, is [a] clumsy and imprecise solution.").

NorthPeak argues that the district court misunderstood the reexamination statements made to the PTO. According to NorthPeak, the prior art references failed to

teach "registers," not because they relied on "regular memory," but, rather, because these references lacked "*designated or specific* regions of memory," a defining characteristic of registers. Indeed, NorthPeak emphasizes that its proposed construction of "register" in this litigation is the same as that which it proposed to the PTO during the second *ex parte* reexamination, and which the PTO ultimately adopted: "a designated or specific region of memory in a computer processor." NorthPeak further argues that its prosecution history statements were not unequivocal disavowals, such that they constituted a disclaimer of the full scope of the plain and ordinary meaning of "register." *See Omega Eng'g, Inc, v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) ("[W]here the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.").

Starting with this last point, we note that, although the district court primarily relied on prosecution disclaimer in reaching its construction, this case does not require invoking the prosecution disclaimer doctrine. It is well established that we are to give claim terms their "ordinary and customary meaning," with reference to the intrinsic evidence, including the prosecution history.[1] *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1317 (Fed. Cir. 2005). Although consulting the prosecution history often serves to identify ways in which the inventor may have narrowed a claim's definition in order to obtain

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[1]   Statements made during reexamination procedures before the PTO are part of the prosecution history. *See Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1266 (Fed. Cir. 2012) (citing *Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1336 (Fed.Cir.2011).

allowance, it may also simply "inform the meaning of the claim language by demonstrating how the inventor understood the invention." *See id.* at 1317; *see also Shire Dev., LLC v. Watson Pharm., Inc.*, 787 F.3d 1359, 1366 (Fed. Cir. 2015) (explaining that prosecution history statements "do inform the claim construction," even when they "do not rise to the level of unmistakable disavowal").

In this case, contrary to NorthPeak's unsubstantiated assertions, there is no hint in the term "register" itself that would suggest the plain and ordinary meaning necessarily encompasses types of regular memory such as RAM or buffers. Therefore, we are not faced with the question of whether NorthPeak unambiguously disclaimed the full scope of the term during reexamination. Rather, the *only* intrinsic evidence informing the plain and ordinary meaning of register comes from the prosecution history—including the definition NorthPeak itself provided during reexamination:

> The term "register" should be construed as "a designated or specific region of memory in a computer processor." This construction is consistent with the plain and customary meaning to one of ordinary skill in the art. *See, e.g.*, COMPUTER DICTIONARY at 334, Microsoft Press (2d. Ed. 1994) (defining "register" as "[a] small named region of high-speed memory located within a microprocessor or any electronic device capable of storing binary data. A register is usually large enough to hold only a few bytes of information and is referenced in programs by a name such as AX or SF. It is used as a holding area for specific, sometimes critical, pieces of data or information related to activities going on within the system. For example, a register might be used to hold the results of an addition operation or to hold the address of a particular location in the computer's memory.")

Joint Appendix at 685. NorthPeak focuses exclusively on the text of the proposed construction, distancing itself from the actual definition it originally cited for support. Clearly, however, at the time of the reexamination, NorthPeak viewed the two statements as saying essentially the same thing, or at least as being "consistent."

Moreover, as the district court correctly determined, NorthPeak's additional statements during the second reexamination conclusively establish that the dictionary definition better conveys the inventors' understanding of the plain and customary meaning of "register." North-Peak specifically addressed the term "register" in distinguishing the claimed invention from two prior art publications: Kahn and Dickson. Because Kahn and Dickson described systems where information was stored in and outputted from regular memory, NorthPeak argued they did not contain registers as found in the claims of the '577 patent. We disagree with NorthPeak that the statements merely went to whether the memory in the prior art was "designated or specific." The focus of the reexamination statements was plainly on distinguishing "registers" from regular memory. The Examiner confirmed this understanding in an interview summary:

> [T]he term "register" has been explained to have a specific meaning which allegedly has not been taught by Dickson and Kahn. This term is commonly defined as "a small, named region of high-speed memory located within a microprocessor or any electronic device capable of storing binary data" (Computer Dictionary at 331, Microsoft Press (2nd edition 1994)). Accordingly [NorthPeak's attorney] submitted that *register cannot be any type of memory*, hence storing information such as preamble or address in a regular memory would not anticipate claimed invention.

Joint Appendix at 934 (emphasis added).

The intrinsic evidence fully supports the district court's construction as representing the plain and customary meaning of the term "register." Even assuming the full scope of the plain meaning of "register" were broader than that which we assign, we would, like the district court, find that NorthPeak unambiguously disclaimed a broader scope during reexamination. The proper construction of "register" is: "a small, named region of high speed memory located within a microprocessor or any electronic device capable of storing binary data. A register is usually large enough to hold only a few bytes of information and is referenced in programs by a name, rather than an address."

As stated above, because we affirm the district court's construction of "register," we need not address the remaining claim terms. The judgment of the district court is affirmed.

AFFIRMED

COSTS

No Costs.