

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

CHARLES C. FREENY III, BRYAN E.
FREENY, and JAMES P. FREENY,

Plaintiffs,

v.

APPLE INC.,

Defendant.

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CASE NO. 2:13-CV-00361-WCB

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

The parties have submitted for the Court’s consideration their views as to the proper construction of the disputed claim terms in United States Patent No. 7,110,744 (“the ’744 patent”), owned jointly by the plaintiffs, Charles C. Freeny III, Bryan E. Freeny, and James P. Freeny. After considering the arguments made by the parties in their claim construction briefing (Dkt. Nos. 99, 105, and 108), the Court issues this Claim Construction Memorandum Opinion and Order.

I. BACKGROUND

The ’744 patent, entitled “Communication and Proximity Authorization Systems,” relates to systems and “communication units” for allowing various devices to communicate with a public communication system, such as the Internet, through wireless communication links when the devices are within a certain limited distance from the claimed communication units or systems. The invention contemplates the use of a single device that can communicate wirelessly

with a variety of providers, such as hotel systems, vehicle parking systems, and toll systems, using multiple frequencies. The integrated wireless communication system features what is referred to as the “wireless device front end unit,” see ’744 patent, col. 6, ll. 46-48, which serves as an access point through which an end user’s device can be connected to the network served by the system. The front end unit includes a “multiple channel wireless transceiver” that is capable of receiving at least two signal types. By having the capacity to receive multiple signal types, the front end unit can communicate simultaneously with a number of end user devices over multiple signal frequencies when the users are close to the front end unit. Id., col. 6, ll. 54-59; col. 7, ll. 45-49.

The Freenys accuse the defendant’s dual-band wireless router products of infringing claims 18 and 19 of the ’744 patent. Claim 18 reads as follows:

18. A communication unit connected to a public communication system, the communication unit capable of detecting a plurality of wireless devices and servicing each of the plurality of wireless devices by providing access to the public communication system when the wireless devices are within a predetermined proximity distance from the communication unit, the communication unit comprising:

a multiple channel wireless transceiver unit in communication with a multiplex unit,

the multiple channel wireless transceiver unit and the multiplex unit cooperating to receive data from and transmit data to each of the plurality of wireless devices so as to provide access to the public communication system for each of the plurality of the wireless devices when each of the wireless devices is within a predetermined proximity distance from the wireless transceiver,

the multiple channel wireless transceiver simultaneously communicating with at least two wireless devices with different types of low power communication signals.

Claim 19 depends from claim 18. It reads: “The communication unit of claim 18, wherein the public communication system includes the Internet.”

II. DISCUSSION

Only two terms are in dispute between the parties. First, the parties propose different constructions for the term “predetermined proximity distance,” which appears in the clause “when each of the wireless devices is within a predetermined proximity distance from the wireless transceiver.” The plaintiffs propose that the term “predetermined proximity distance” be construed to mean “a distance that is known in advance,” while the defendant argue that the term should be construed to mean “preset, fixed distance.” Second, the parties disagree about the proper construction of the phrase “the multiple channel wireless transceiver simultaneously communicating with at least two wireless devices with different types of low power communication signals.” The plaintiffs argue that that words “the multiple channel wireless transceiver” should be construed to mean “the multiple channel wireless transceiver unit,” and that the words “different types of low power communication signals” should be construed to mean “different types of communication signals having a power for transmission up to a maximum of several hundred feet.” The rest of the phrase, according to the plaintiffs, should be given its plain and ordinary meaning. The defendant does not offer a competing proposed construction, but instead argues that the language of the “multiple channel wireless transceiver” limitation is indefinite and that asserted claims 18 and 19 are therefore invalid.

1. “Predetermined Proximity Distance”

The difference between the positions of the two parties regarding the construction of the term “predetermined proximity distance” is subtle, perhaps evanescent. Both proposed constructions embody the same basic concept—that the distance within which each wireless device can communicate with the wireless transceiver is determined in advance. The defendant’s

proposal, however, suggests that the distance is not only preset, but also is not adjustable over time. The problem with that construction is that nothing in the patent supports the latter restriction on the meaning of the term “predetermined proximity distance.” Although some of the embodiments of the invention use proximity distances that are set in advance and are not designed to be modified, that does not support the view that the term “predetermined” is necessarily limited in that manner with regard to the invention as a whole.

The plaintiffs’ proposed construction is not entirely satisfactory, either. The term “predetermined,” in the manner that it is used repeatedly in the specification, contemplates selecting a particular transmission distance and ensuring that communication can occur over that distance. The construction “known in advance,” however, entails only the act of ascertaining, or knowing, the communication distance. Accordingly, the Court concludes that the term “predetermined proximity distance” should be construed to incorporate the concept that the communication distance is selected in advance. The Court therefore construes the term “predetermined proximity distance” to mean: **“the distance over which the communications are intended to be capable of traveling.”**

2. “The Multiple Channel Wireless Transceiver”

The defendant directs several different indefiniteness arguments to the limitation in claims 18 and 19 that recites “the multiple channel wireless transceiver simultaneously communicating with at least two wireless devices with different types of low power communication signals.” First, it argues that the words “multiple channel,” as used in the claim term “multiple channel wireless transceiver” are indefinite because it is not clear whether the term “channel” refers to a “frequency.” Dkt. No. 105, at 14. Next, it argues that the patent is

“incomprehensible when it comes to distinguishing between ‘frequencies’ and ‘signal types,’ sometimes conflating the two and sometimes distinguishing them.” Id. The defendant further argues that even if the term “multiple channel” means “more than one frequency,” the term is still indefinite because it does not make clear whether the term refers to particular frequency ranges as opposed to distinct frequencies within those identified frequency ranges. Id. at 15.

The plaintiffs point out that the term “multiple channel wireless transceiver” is defined in the specification to mean “a general multiple signal frequency transceiver transaction unit.” ’744 patent, col. 1, ll. 61-63. For that reason, the plaintiffs argue, the patent makes it clear that a “multiple channel wireless transceiver” means “any transceiver that can transmit on multiple signal frequencies.” Dkt. No. 108, at 4. Based on the definition of the term “multiple channel wireless transceiver” in the specification, the Court agrees with the plaintiffs that, as used in the ’744 patent, the term “channel” refers to a particular pathway through the transceiver that corresponds to a frequency range or band within which a particular signal is transmitted and received.

Similarly, the terms “frequencies” and “types of signals” are not “incomprehensible,” as the defendant contends. The meaning of the term “frequency” is not in dispute, and the specification uses the phrase “types of signals” to refer to different frequency bands, such as the Infrared band, the 900 MHz band, and the 1.8 GHz band, or different communication protocols. See, e.g., ’744 patent, col. 1, ll. 42-43; id., col. 7, ll. 47-49; id., col. 11, ll. 35-36. In other words, the patent refers to signals that use different frequency bands or different protocols as different “types of signals.” There is therefore no confusion in the way the patent uses the terms “frequencies” and “types of signals.”

Finally, there is no force to the defendant's argument that it is unclear whether the term "multiple channel," and its definition as "more than one frequency" refer to distinct frequency ranges as opposed to distinct frequencies within those ranges. The terms "multiple channel" and "more than one frequency" are used in the patent to refer to the regulated frequency bands within the radio and infrared segments of the electromagnetic spectrum. From that context, it is clear that the channels refer to the frequency bands within which particular signals are authorized to be transmitted.

Aside from its indefiniteness argument, the defendant does not offer a proposed construction of the term "multiple channel wireless transceiver." Based on the plain language of the term and its use in the specification, the Court agrees with the plaintiffs that the term should be construed to mean "**the multiple channel wireless transceiver unit.**" The Court further holds that the phrase is not indefinite.

3. "Different Types of . . . Communication Signals"

The defendant next raises an indefiniteness challenge with respect to the phrase "different types of . . . communication signals," as used in the portion of the limitation of claims 18 and 19 that reads "multiple channel wireless transceiver simultaneously communicating with at least two wireless devices with different types of low power communication signals." As already explained, however, there is no confusion in the way the patent uses the term "different types of . . . signals" to refer to signals having different frequencies or utilizing different protocols.

The defendant argues that if signal "types" are signals on different frequency bands, then "the word 'channel' used earlier in the phrase is rendered superfluous." Dkt. No. 105, at 15. That argument is unconvincing. The word "channel" is used in the term "multiple channel

wireless transceiver.” The various “channels” are distinct communication pathways through the transceiver. Specifying that the “multiple channel wireless transceiver” communicates “with different types of . . . signals” is therefore not redundant, but clarifies that each of the channels is associated with a distinct signal type. Furthermore, the statement in the specification that the “multiple channel wireless transceiver” is another name for “a general multiple signal frequency transceiver,” ’744 patent, col. 1, ll. 61-63, clarifies that the “channels” correspond to signals from different frequency bands. Therefore, the term “multiple channel wireless transceiver” simply means a transceiver that can simultaneously receive and/or transmit more than one signal, with each signal occupying its own channel and being of a different frequency. In other words, the fact that the term “channel,” which refers to a particular communication pathway in the transceiver, is used alongside the term “signal types,” which in this context refers to signals falling into different frequency bands, is clarifying and not redundant. The claim language thus does not give rise to a valid claim of indefiniteness.

The Court agrees with the plaintiffs that the term “different types of . . . communication signals” needs no construction, but simply means: **“communication signals with different frequencies or protocols.”** The term is not indefinite.

4. “Low Power Communication Signals”

The final term in dispute for purposes of claim construction is the term “low power communication signals,” which is another portion of the limitation of claims 18 and 19 that recites “the multiple channel wireless transceiver simultaneously communicating with at least two wireless devices with different types of low power communication signals.” The plaintiffs argue that the term “low power communication signals” should be construed to mean “signals

having a power for transmission up to a maximum of several hundred feet.” The defendant argues that the term is indefinite because the words “low power” are wholly lacking in specificity.

While it is true that the patent does not define the term “low power” with precision, precision is not required as long as the claim language is as specific as is reasonably possible under the circumstances, and as long as a person of skill in the art would understand the scope of the claims with reasonable certainty. The Federal Circuit has frequently addressed claim language that was imprecise and has frequently upheld claims containing similar language, based on the commonsense observation that sometimes precision is impossible to achieve, consistent with an accurate description of the full scope of the invention. As the court has explained: “Definiteness problems often arise when words of degree are used in a claim. That some claim language may not be precise, however, does not automatically render a claim invalid.” Seattle Box Co. v. Indus. Crating & Packing, Inc., 731 F.2d 818, 826 (Fed. Cir. 1984) (upholding claim using term “substantially equal to”). When a word of degree is used, “the district court must determine whether the patent’s specification provides some standard for measuring that degree. The trial court must decide, that is, whether one of ordinary skill in the art would understand what is claimed when the claim is read in light of the specification.” Id.

Indefiniteness is a legal determination; if the court concludes that a person of ordinary skill in the art, with the aid of the specification, would understand what is claimed, the claim is not indefinite. See BJ Servs. Co. v. Halliburton Energy Servs., Inc., 338 F.3d 1368, 1372 (Fed. Cir. 2003) (claim term “about 0.06” not indefinite). For example, the term “substantially” has frequently been held not indefinite if a person of ordinary skill can discern from the claims and

specification what the bounds of the claim are with reasonable certainty. See Deere & Co. v. Bush Hog, LLC, 703 F.3d 1349, 1359 (Fed. Cir. 2012) (“substantially planar” not indefinite); Enzo Biochem, Inc. v. Applera Corp., 599 F.3d 1325, 1335 (Fed. Cir. 2010) (“not interfering substantially” not indefinite); Ecolab, Inc. v. Envirochem, Inc., 264 F.3d 1358, 1367 (Fed. Cir. 2001) (“We note that like the term ‘about,’ the term ‘substantially’ is a descriptive term commonly used in patent claims to ‘avoid a strict numerical boundary to the specified parameter.’”); Exxon Research & Eng’g Co. v. United States, 265 F.3d 1371, 1377 (Fed. Cir. 2001) (“to increase substantially” not indefinite); see also Modine Mfg. Co. v. U.S. Int’l Trade Comm’n, 75 F.3d 1545, 1557 (Fed. Cir. 1996) (“relatively small” not indefinite); Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1217-18 (Fed. Cir.1995) (reviewing extrinsic evidence to affirm the district court’s construction of “about 5:1 to about 7:1” as not including 4:1); Andrew Corp. v. Gabriel Elecs., Inc., 847 F.2d 819, 821-22 (Fed. Cir. 1988) (“substantially equal” and “closely approximate” not indefinite); Rosemount, Inc. v. Beckman Instruments, Inc., 727 F.2d 1540, 1547 (Fed. Cir. 1984) (“close proximity” not indefinite).

On numerous occasions, district courts, including this court, have held similarly imprecise claim language not indefinite. See, e.g., Thomas Swan & Co. v. Finisar Corp., 2014 WL 2885296, at *25 (E.D. Tex. June 25, 2014) (“substantially collimated” not indefinite); Adaptix, Inc. v. Alcatel-Lucent USA, Inc., 2014 WL 894844, at *9 (E.D. Tex. Feb. 26, 2014) (“roughly the same” not indefinite). And in several instances, district courts, including this court, have held the claim term “low”—the same term that is at issue here—not to be indefinite. Input/Output, Inc. v. Sercel, Inc., 2007 WL 6196070, at *30 (E.D. Tex. Dec. 19, 2007) (“low frequency forces” not indefinite); Cardio-Focus, Inc. v. Cardiogenesis Corp., 827 F. Supp. 2d 36,

43-44 (D. Mass. 2011) (“low hydroxyl ion content” not indefinite); NexMed Holdings, Inc. v. Beta Techs., Inc., 2008 WL 2783522, at *4 (D. Utah July 16, 2008) (“low DC electrical voltage” not indefinite).

In pressing its indefiniteness argument, the defendant relies heavily on the Supreme Court’s recent decision in Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120 (2014), which addressed the issue of indefiniteness and modified the test applied in some prior Federal Circuit cases. The Nautilus Court held “a patent’s claims, viewed in light of the specification and prosecution history, [must] inform those skilled in the art about the scope of the invention with reasonable certainty.” 134 S. Ct. at 2129. Contrary to the defendant’s suggestion, that standard does not render all of the prior Federal Circuit and district court cases inapplicable, nor does it require that the claim language in this case be held indefinite. The Supreme Court recognized that “some modicum of uncertainty” is “the price of ensuring the appropriate incentives for innovation,” id. at 2128, and that because patents are directed to persons of skill in the art, all that is required is that the patent apprise such persons of the scope of the invention. Indeed, the Court cited with approval Eibel Process Co. v. Minn. & Ontario Paper Co., 261 U.S. 45 (1923), where the Court upheld claim language requiring a wire to be placed at a “high” or “substantial” elevation. Nautilus, 134 S. Ct. at 2129 n.5. That language, the Eibel Court held, would be sufficiently clear in context for persons of skill in the art to understand and therefore was not invalid for indefiniteness. 261 U.S. at 65-66.

In light of the applicable caselaw, including the Nautilus case, the Court concludes that the term “low power communication signals” is not indefinite. The specification on several occasions refers to low power signals as those that do not communicate farther than a few

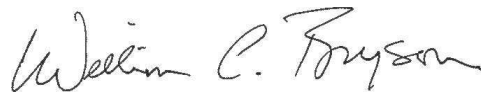
hundred feet. See, e.g., '744 patent, col. 32, ll. 29-31 (“low power wireless link . . . does not typically communicate farther than about 300 feet”); id., col. 35, ll. 50-51 (detection range of “say several hundred feet”); id., col. 36, ll. 31-38 (wireless connection ranges “will vary from several hundred feet to only several feet”); id., col. 39, ll. 13-15 (transmissions possible “within several hundred feet” of a communication unit); id., col. 7, ll. 4-8 (transceiver capable of communicating “up to at least a predetermined proximity distance such as a hundred feet”); id., col. 13, ll. 49-52 (different signal strengths designed for detection at 500 feet and 20 feet); id., col. 16, ll. 49-51 (authorization distance set at 500 feet and 20 feet). Moreover, the plaintiffs’ expert filed a declaration pointing to the references in the patent to infrared signals, 900 MHz signals, 1.8 GHz signals, and 2.4 GHz signals as examples of different types of low power communication signals. He explained that a common characteristic of such signals is the limited distance over which they can be transmitted, as discussed in the specification. One of ordinary skill in the art, he explained, would understand from reading the '744 specification that the claim term “different types of low power communication signals” means “different types of communication signals having a power for transmission up to a maximum of several hundred feet.” Dkt. No. 99-10, at 7-8. The defendant has not submitted a contrary expert declaration on the issue of indefiniteness.

Accordingly, the Court concludes that the term “low power communication signals,” viewed in light of the specification, would be understood by persons of skill in the art with reasonable certainty. The asserted claims in the '744 patent are therefore not indefinite. Furthermore, in light of the discussion of low power communications in the specification, the

Court agrees with the plaintiffs that the term should be interpreted to mean “**communication signals having a power for transmission of up to a maximum of several hundred feet.**”

It is so ORDERED.

SIGNED this 28th day of August, 2014.

Handwritten signature of William C. Bryson in cursive script.

WILLIAM C. BRYSON
UNITED STATES CIRCUIT JUDGE