

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

In the Matter of

CERTAIN CONSUMER ELECTRONICS
AND DISPLAY DEVICES WITH
GRAPHICS PROCESSING AND GRAPHICS
PROCESSING UNITS THEREIN

Investigation No. 337-TA-943

ORDER NO. 12: CONSTRUING TERMS OF THE ASSERTED PATENTS

(July 24, 2015)

The claim terms construed in this Order are done so for the purposes of this Investigation. Hereafter, discovery and briefing in this Investigation shall be governed by the construction of the claim terms in this Order. Those terms not in dispute need not be construed. *See Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n*, 366 F.3d 1311, 1323 (Fed. Cir. 2004) (noting that the administrative law judge need only construe disputed claim terms)

Table of Abbreviations

CMIB	Complainant's Initial Markman Brief
CMRB	Complainant's Reply Markman Brief
CBPS	Complainant's Bullet-Point Summary
RMIB	Respondents' Initial Markman Brief
RMRB	Respondents' Reply Markman Brief
RBPS	Respondents' Bullet-Point Summary
SMIB	Staff's Initial Markman Brief
SMRB	Staff's Reply Markman Brief
SBPS	Staff's Bullet-Point Summary
Tr.	Transcript of the Markman Hearing

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I. INTRODUCTION

The Commission instituted this investigation on January 13, 2015, based on a complaint filed on behalf of One-E-Way, Inc. (“One-E-Way” or “Complainant”). 80 *Fed. Reg.* 1663 (January 13, 2015). The complaint alleges violations of Section 337 in the importation into the United States, sale for importation, and sale within the United States after importation of certain wireless headsets by reason of infringement of, *inter alia*, claims 4, 8, and 10 of U.S. Patent No. 7,865,258 (“the ‘258 Patent”) and claims 1-6 and 10 of U.S. Patent No. 8,131,391 (“the ‘391 Patent”)¹ by, *inter alia*: (i) Sony Corporation, Sony Corporation of America, and Sony Electronics Inc. (collectively “Sony”); (ii) BlueAnt Wireless Ltd. and BlueAnt Wireless, Inc. (collectively “BlueAnt”); (iii) Creative Technology Ltd. and Creative Labs, Inc. (collectively “Creative”); (iv) Jawbone, Inc. (“Jawbone”); and (v) GN Netcom A/S (“GN Netcom”) (collectively “Respondents”).² *Id.*

¹ Originally, Complainant also asserted infringement of claims 3 and 11 of the ‘258 Patent, but subsequently filed a motion to terminate the investigation with respect to those claims. On May 4, 2015, I issued Order No. 9 terminating this investigation with regard to claims 3 and 11 of the ‘258 Patent. (Order No. 9 (May 4, 2015); Notice of Commission Determination Not to Review an Initial Determination Granting an Unopposed Motion to Partially Terminate the Investigation with Respect to Claims 3 and 11 of U.S. Patent No. 7,865,258 (May 26, 2015).)

On July 20, 2015, Complainant filed an unopposed motion to partially terminate the investigation as to claims 4 and 10 of the ‘258 Patent and claim 2 of the ‘391 Patent.

² Complainant also named as respondents in the complaint Beats Electronics LLC and Beats Electronics International Ltd. (collectively “Beats”), but subsequently filed a motion to terminate the investigation with respect to Beats. *See* Motion Docket No. 943-004. Beats is no longer a party to this investigation. (*See* Notice of Commission Determination Not to Review an Initial Determination Granting a Motion to Terminate the Investigation as to Respondents Beats Electronics LLC and Beats Electronics International Ltd. Based on Withdrawal of Allegations (April 29, 2015).)

Additionally, the Complainant named as respondents Sennheiser Electronic GmbH & Co. KG and Sennheiser Electronic Corporation (collectively “Sennheiser”). On April 30, 2015, Complainant and Respondents Sennheiser filed a joint motion to terminate Sennheiser by settlement. Sennheiser is no longer a party to this investigation. (*See* Notice of Commission Determination Not to Review an Initial Determination Granting a Motion to Terminate the Investigation as to Respondents Sennheiser Electronic GmbH & Co. KG and Sennheiser Electronic Corporation Based on Settlement Agreement (June 11, 2015).)

On February 9, 2015, I issued the initial procedural schedule for this investigation setting May 26-27, 2015, as the dates for the *Markman* hearing. (See Order No. 5, Appendix A (February 9, 2015).) In accordance with the Joint Proposed Procedural Schedule submitted by the parties thereafter, the parties exchanged: (i) on March 13, 2015, their lists of proposed terms for construction, as required by G.R. 8.1; and (ii) on March 27, 2015 and April 14, 2015, their preliminary constructions for those terms, as required by G.R. 8.2. After meeting and conferring to narrow the issues, the parties filed their Joint Claim Construction Chart on April 21, 2015. On May 26-27, 2015, in accordance with the procedural schedule, I held a technology tutorial and *Markman* hearing. I informed the parties during the hearing that I would allow them to file a bullet-point summary of their claims construction arguments after the conclusion of the *Markman* hearing. On June 3, 2015, Complainant and Respondents filed a bullet-point summary of their claims construction arguments. On June 5, 2015, the Staff filed a bullet-point summary of its claims construction arguments.

II. RELEVANT LAW

“An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*) (internal citations omitted), *aff’d*, 517 U.S. 370 (1996). Claim construction is a “matter of law exclusively for the court.” *Id.* at 970-71. “The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims.” *Embrex, Inc. v. Serv. Eng’g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000).

Claim construction focuses on the intrinsic evidence, which consists of the claims themselves, the specification, and the prosecution history. See *Phillips v. AWH Corp.*, 415 F.3d

1303, 1314 (Fed. Cir. 2005) (*en banc*); *see also Markman*, 52 F.3d at 979. As the Federal Circuit in *Phillips* explained, courts must analyze each of these components to determine the “ordinary and customary meaning of a claim term” as understood by a person of ordinary skill in art at the time of the invention. 415 F.3d at 1313. “Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.” *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001).

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). “Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claims terms.” *Id.* at 1314; *see also Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) (“In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to ‘particularly point [] out and distinctly claim [] the subject matter which the patentee regards as his invention.’”). The context in which a term is used in an asserted claim can be “‘highly instructive.’” *Phillips*, 415 F.3d at 1314. Additionally, other claims in the same patent, asserted or unasserted, may also provide guidance as to the meaning of a claim term. *Id.*

The specification “is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.” *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Id.* at 1316. “In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by

the inventor.” *Id.* As a general rule, however, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Id.* at 1323. In the end, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be ... the correct construction.” *Id.* at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

In addition to the claims and the specification, the prosecution history should be examined, if in evidence. *Id.* at 1317; *see also Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). The prosecution history can “often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317; *see also Chimie v. PPG Indus. Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (“The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution.”).

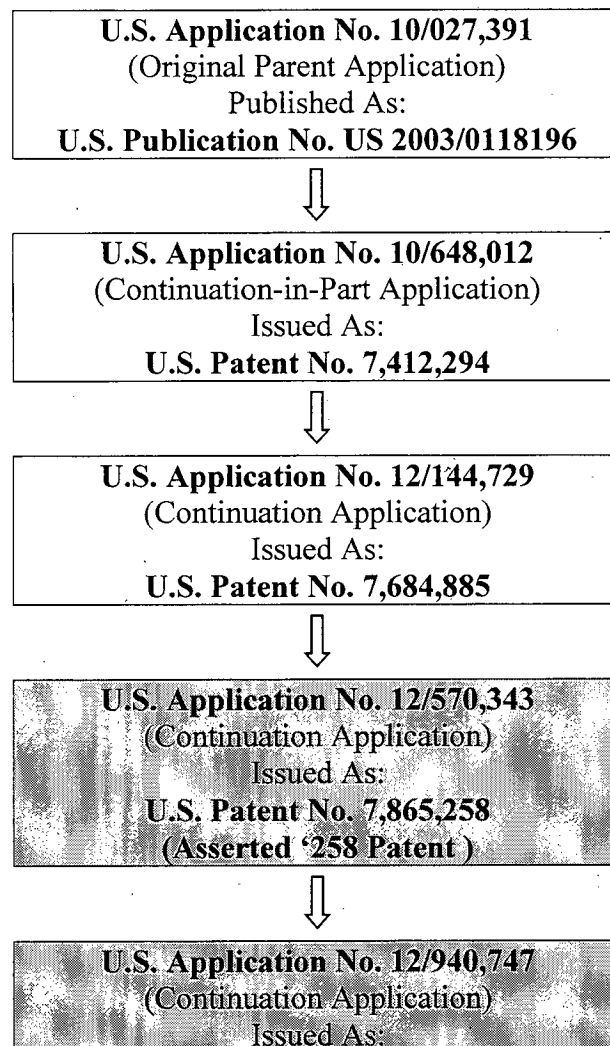
When the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence (*i.e.*, all evidence external to the patent and the prosecution history, including dictionaries, inventor testimony, expert testimony, and learned treatises) may be considered. *Phillips*, 415 F.3d at 1317. Extrinsic evidence is generally viewed as less reliable than the patent itself and its prosecution history in determining how to define claim terms. *Id.* at 1317. “The court may receive extrinsic evidence to educate itself about the invention and the relevant technology, but the court may not use extrinsic evidence to arrive at a claim construction that is clearly at odds with the construction mandated by the intrinsic evidence.” *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 977 (Fed. Cir. 1999).

If, after a review of the intrinsic and extrinsic evidence, a claim term remains ambiguous, the claim should be construed so as to maintain its validity. *Phillips*, 415 F.3d at 1327. Claims, however, cannot be judicially rewritten in order to fulfill the axiom of preserving their validity. *See Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999). Thus, “if the only claim construction that is consistent with the claim’s language and the written description renders the claim invalid, then the axiom does not apply and the claim is simply invalid.” *Id.*

III. U.S. PATENT NO. 7,865,258 & U.S. PATENT NO. 8,131,391

A. Overview

The Asserted Patents descend from a series of patent applications, as shown below:



**U.S. Patent No. 8,131,391
(Asserted '391 Patent)**

(See CMIB, Ex. 1 ('258 Patent), cover page; Ex. 2 ('391 Patent), cover page.)

As shown above, the Asserted Patents are based on a *continuation application* claiming the benefit of U.S. Patent Application No. 12,144,729 ("the '729 Application"), which is itself a *continuation application* (that issued as U.S. Patent No. 7,684,885 ("the '885 Patent")) claiming the benefit of U.S. Patent Application No. 10/648,012 ("the '012 Application"), which is, in turn, a *continuation-in-part application* (that issued as U.S. Patent No. 7,412,294 ("the '294 Patent")) claiming the benefit of the original parent application -- U.S. Patent Application No. 10/027,391 ("the '391 Application") -- abandoned and published as U.S. Publication No. US 2003/0118196 ("the '196 Publication")). (CMIB, Ex. 1 ('258 Patent), cover page; Ex. 2 ('391 Patent), cover page.) Thus, the claims, specifications, and prosecution histories of all of the above related patent applications are pertinent to the issue of claim construction in this investigation. *Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003).

Both the '258 Patent (entitled "Wireless Digital Audio System") and the '391 Patent (titled "Wireless Digital Audio Music System") name C. Earl Woolfork as the inventor and One-E-Way as the assignee. (CMIB, Ex. 1 ('258 Patent), cover page; Ex. 2 ('391 Patent), cover page.) The '258 Patent and the '391 Patent are generally directed to a digital audio transmitter operatively coupled to an audio source and a digital audio receiver operatively coupled to a headphone set, the audio transmitter and the audio receiver being configured for digital wireless communication. (CMIB, Ex. 1 ('258 Patent), Abstract; Ex. 2 ('391 Patent), Abstract.) Further, the digital wireless communication involves the coded transmission of the audio signal, which provides for private listening without interference from other users of wireless devices occupying the same space.

(CMIB, Ex. 1 ('258 Patent), Figs. 1-3, "Summary of the Invention"; Ex. 2 ('391 Patent), Figs. 1-3, "Summary of the Invention.")

B. Level of Ordinary Skill in the Art

The Parties' Positions

Complainant proposes that a person of ordinary skill in the art of the Asserted Patents would have "a Bachelor of Science degree and at least one year of experience working as an engineer in a telecommunications-related field," or could have "more work experience and less formal education, or more formal education and less work experience," such as, for example, "someone with a Bachelor of Science and one year of graduate-level formal education in a telecommunications-related field" or "someone with at least five years of experience working as an engineer in a telecommunications-related field." (CMIB at 13.)

Respondents propose that a person of ordinary skill in the art of the Asserted Patents would have "a Bachelor of Science degree in electrical engineering or a related field, and around two years of experience in the design or implementation of wireless communications systems, or the equivalent," or would have "six years of experience in the design or implementation of wireless communications systems, or the equivalent." (RMIB at 6.)

The Staff contends the appropriate level of ordinary skill in the art is that proposed by Respondents. (SMIB at 8.) According to the Staff, even though Respondents arguably require a higher in level of skill (of work experience), Respondents' proposal appears to the Staff to be more precise than Complainant's proposal (reciting, *inter alia*, "telecommunications-related field") and more consistent with the disclosures of the Asserted Patents (discussing, *inter alia*, "digital wireless communications"). (SMIB at 9, citing CMIB, Ex. 1 ('258 Patent), Abstract; Ex. 2 ('391 Patent), Abstract.) While Complainant's proposal "certainly encompasses" "digital wireless communications," the problem is that by reciting "telecommunications-related field" in

their proposal, the Staff contends the Complainant is being overly broad because it is including technology fields beyond those disclosed in the Asserted Patents. (SMIB at 9.) Continuing, the Staff notes that Complainant cites, *inter alia*, Federal Standard 1037C (“Telecommunications: Glossary of Telecommunication Terms”) as support for its proposed claim constructions. (SMIB at 9, citing CMIB at 5-6, Ex. 19 (Federal Standard 1037C).) As noted by the Staff, Federal Standard 1037C states, *inter alia*:

This glossary provides standard definitions for the fields subsumed by the umbrella discipline of telecommunications. Fields defined herein include antenna types and measurements, codes/coding schemes, computer and data communications (computer graphics vocabulary, file transfer techniques, hardware, software), fiber optics communications, facsimile types and techniques, frequency topics (frequency modulation, interference, spectrum sharing), Internet, ISDN, LANs management, architecture/topology), NII, NS/EP, power issues, PCS/UPT/cellular mobile, radio communications, routing schemes, satellite communications, security issues, switching techniques, synchronization/timing techniques, telegraphy, telephony, TV (UHF, VHF, cable TV HDTV), traffic issues, transmission/propagation concerns (signal loss/attenuation, transmission lines), video technology, and wave propagation/measurement terminology.

(*Id.*, citing CMIB, Ex. 19 (Federal Standard 1037C), p. 2 (1EWAY00056770) (*emphasis added*).)

Considering the above Standard, a “telecommunications-related field” could include various technology fields, *e.g.*, “fiber optics communications” and “facsimile types and techniques, both of which are not related to the “digital wireless communications” discussed in the Asserted Patents and accordingly, the Staff believes Respondents’ proposal provides for a more appropriate level of ordinary skill in the art of the Asserted Patents. (*Id.*)

Discussion

Having considered the parties positions, I find that in this instance I concur with the Staff and the Respondent and find that a proper definition of a Person of Ordinary Skill in the Art (POSITA) is a person having “a Bachelor of Science degree in electrical engineering or a related field, and around two years of experience in the design or implementation of wireless

communications systems, or the equivalent,” or would have “six years of experience in the design or implementation of wireless communications systems, or the equivalent.”

C. Undisputed Term – CDMA

The parties have agreed the term “CDMA” (code division multiple access) should be construed consistent with its plain and ordinary meaning, which is the claim language itself. (CBPS at 2 and RBPS at 2.) This was the Staff’s position all along. (SMIB at 12.) Since there is no intrinsic evidence capable of supporting any other possible meaning I concur with the construction agreed to by the parties. Accordingly, since CDMA is a term of art that had a well-understood meaning in 2001 to a POSITA that is the meaning it will have in this investigation. (See Tr. 28:20-28; 39:6-17.)

D. Disputed Term – “original audio signal representation in packet format”

<p align="center">“original audio signal representation in packet format” (“original audio signal representation in the form of packets”) (“digital audio . . . representation signal in the form of a packet”)</p>		
Complainant’s Proposed Construction	Respondent’s Proposed Construction	Staff’s Proposed Construction
<p>One-E-Way does not believe that these related claim terms need to be construed. However, if the Court is inclined to construe the terms, then One-E-Way proposes that they should be construed consistent with their ordinary meaning as:</p> <p>“one or more packets in a digital format that include high quality audio data corresponding to the original audio signal”</p>	<p>“one or more packets in a digital format that carry uncompressed, high quality audio data representing the original audio signal”</p>	<p>The Staff is of the view that these related claim terms do not require construction.</p> <p>If construction is required, however, then the Staff proposes that these related claim terms should be construed consistent with their plain and ordinary meaning, which is the claim language itself.</p>

The Parties' Positions

Respondent's Position

As the foregoing chart indicates, Respondent contends the term at issue requires the data to be “uncompressed.” The basis for Respondent’s argument is its contention that the prosecution history of the ’391 patent (the original patent in this series) indicates the patent was rejected because the examiner would not patent claims involving compressed, packetized audio signals under the applicable G.729 standard or coding implementation. (RMIB at 19.) In response, Complainant One Way allegedly sought to overcome the rejection by distinguishing its invention from the compression teaching (“compression algorithm for voice”) as being incapable of transmitting the required signal. (*Id.*; RBPS at 2.)

Respondents allege One-E-Way’s “repeated” file wrapper statements constitute a clear and unmistakable disavowal of a compression algorithm in the context of these terms, thus narrowing their scope. (RMIB at 20; RBPS at 2.) Respondents argue that Complainants repeated characterization of their invention as requiring “high quality audio” it limited or narrowed the meaning “original audio signal representation in the packet format” and its related terms. (RMIB at 20.) More specifically, Respondents contend that by characterizing its invention as one requiring “high quality audio,” One-E- Way limited the term at issue to systems transmitting only high quality audio data since the G.729 standard was incapable of sending high quality audio as required by the present invention. (*Id.* at 21.)

Respondents allege that when One-E-Way clearly and unequivocally distinguished its invention from the Li prior art when it argued to the USPTO the “compression algorithm” was the reason the G.729 standard could not transmit the required high quality audio. (*Id.*) Respondents allege that One Way’s prosecution history arguments go beyond merely disclaiming the G.729 method of compression. (*Id.* at 22.) Specifically, Respondents allege that One-E-Way provided

no description of any type of compression necessary to produce “high quality audio” beyond its efforts to disclaim G.729 compression. (*Id.*) In closing, Respondent argue that if One-E-Way really argues the claims require reproduced audio signal be high quality and may be compressed, its failure to describe the level of quality or compression, other than disclaiming the compression G.729 can produce means persons of ordinary skill in the art would be unable to ascertain what level of compression would meet the claim language and this would be unclear. (*Id.*)

Complainant’s Position

One-E-Way notes Respondents’ base their argument on prosecution history, *i.e.*, disavowals allegedly made during prosecution. (CMIB at 7; CBPS at 3.) Moreover, One-E-Way points out that Respondents acknowledged that “based on the claim language itself in the specification, we would agree there is no limitation to a particular audio standard. But in view of the prosecution history, we believe there is a disclaimer of compressed audio.” (CBPS at 3, citing Tr. 50:7-17.)

One-E-Way alleges that its point of contrast over the prior art G.729 to the USPTO was that the “present invention” supports “high quality audio” rather than compression. (CMRB at 8; CBPS at 3.) Hence, One-E-Way contends it did not disavow compression because it did not contrast its claim concerning “high quality audio” to the prior art. (CMRB at 8.) One-E-Way notes that it only described “the present invention” (to the USPTO) as supporting “high quality audio” not in terms of compression or lack thereof. (CBPS at 3.) Accordingly, One-E-Way notes that it: (1) never contrasted compression; (2) never represented it packet did not include compressed data; and (3) never made any clear and unmistakable disavowal related to compression. (*Id.*)

Staff's Position

The Staff's position is consistent with that of One-E-Way. (SMIB at 15.) In fact, the Staff agrees almost precisely with Complainant's position that One-E-Way's (the applicant's) statements are directed to high quality audio data rather than compression algorithms. (*Id.*) Thus, according to the Staff, because the statements at issue "discuss the G.729 compression algorithm in the context of high quality audio data, rather than compression by itself, the applicant's statements do not clearly and unmistakably demonstrate disavowal of compression." (*Id.*; see SBPS at 1.)

The Staff observes, whereas here, statements made in the prosecution history are subject to multiple reasonable interpretations, "[t]here is no 'clear and unmistakable' disclaimer." (SBPS at 2, citing *Scandisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1287 (Fed. Cir. 2005).)

Discussion

As cogently noted by the Staff, the parties agree the patent claims at issue do not provide support for Respondents' proposed requirement for "uncompressed" audio data for there is no mention of uncompressed audio data therein. (SMRB at 11-12; SBPS at 1; Tr. at 50:7-17.) The parties also agree the patent specification provides no support for a requirement for "uncompressed" audio data for there is no such discussion by which a POSITA that would prohibit such compression. (*Id.*) The parties recognize the only argument for limiting the term at issue to "uncompressed audio data are based upon statements to the USPTO about the G.729 standard made in connection to the applicant's reference to "high quality audio data" during prosecution of the '391 Patent. (*Id.*; Tr. 52:18-53:20.)

Based upon my analysis of the representations made by the applicant during the prosecution of the '391 Patent, I concur with the position of One-E-Way and the Staff. Thus, I find no clear and unmistakable disavowal of any kind of compression of audio data.

I find no reason to construe the claim term “original audio signal representation in packet format” beyond the plain and ordinary meaning of the claim language itself. To the extent there is ever any issue as to whether the packets referred to can include high quality audio data I would answer that in the affirmative and also hold the question of compression is irrelevant to construction of the language at issue because as the Staff points out, compression is not excluded.

E. Disputed Term –“reduced intersymbol interference coding”

<p align="center">“reduced intersymbol interference coding” (“reduced inter-symbol interference coding”)</p>		
Complainant’s Proposed Construction	Respondent’s Position	Staff’s Proposed Construction
<p>One-E-Way does not believe that these related claim terms need to be construed. However, if the Court is inclined to construe the terms, then One-E-Way proposes that they should be construed consistent with their ordinary meaning as:</p> <p>“coding that reduces intersymbol (inter-symbol) interference”</p>	<p>Indefinite.</p>	<p>The Staff is of the view that these related claim terms do not require construction.</p> <p>If construction is required, however, then the Staff proposes that these related claim terms should be construed consistent with their plain and ordinary meaning, which is “coding that reduces intersymbol (inter-symbol) interference.”</p>

The Parties’ Positions

Respondent’s Position

Respondents argue the term at issue is indefinite because it is confusing and assert that:

(1) the term is not used in the field of wireless communications systems and (2) the term appears only in the claims of the asserted patents (not defined or baselined otherwise in the patent specifications). (RMIB at 23-24, 26; RBPS at 3.) Hence, the terms at issue are indefinite for failure to provide reasonable certainty as to their scope. (RMIB at 25.)

Respondents assert the parties really do not dispute that what “intersymbol interference” means, but that the problem is that the claims added “reduced” on the front end and “coding” on the back end to create “reduced intersymbol interference coding.” (*Id.*) According to the Respondents, there is nothing in either the ’258 or ’391 patents to explain how the coding would be worked or implemented or how much intersymbol interference would be reduced as compared to what. (*Id.*) Respondents contend the net effect of the problems they point out is that the term “reduced intersymbol interference coding” cannot be ascertained with reasonable certainty. (RMIB at 27.)

Respondent further allege there is no category of codings understood by artisans with the goal of reducing intersymbol interference. (*Id.*) Instead, “in the field of wireless communications systems, codings are typically defined by their structure and operation instead of an abstract goal or benefit they provide.” (*Id.*) Respondents thus allege two pieces of information are missing, i.e., (1) what is the baseline by which to judge the coding reduction; (2) what degree of reduction of intersymbol interference beyond the baseline qualifies the coding to be a reduction. (RMIB at 27-28.)

Complainant’s Position

One-E-Way contends the terms at issue require no construction and if any is needed, the plain and ordinary meaning will serve. (CMIB at 46.) One-E-Way notes that Respondents do not dispute the ordinary meaning of the term “intersymbol interference” but instead, make three arguments regarding indefiniteness. (CMIB at 46-47.)

One-E-Way refutes Respondents’ argument that the claims recite no particular category or classification of codings by point out there was no requirement for it to recite, in its patent claims, any particular categories or classifications of codings. (CMIB at 47.) Instead, One-E-Way noted it claimed the concept of coding to reduce intersymbol interference and provided a specific

example in the parent patent specification using a “transform” coding to reduce intersymbol interference. (*Id.*) Moreover, during the ’391 Patent prosecution, One-E-Way confirmed (on June 21, 2011) that “[t]he ISI mitigation of the present invention is performed by, among other things, the claimed encoder...” (*Id.*, citing ’391 Patent File History, Response dated June 21, 2011 at 4 (1EWAY00000645).) Continuing, One-E-Way noted it is black letter law that a patent applicant may recite a concept in a patent claim that is broader than a specific example in the patent specification. (*Id.*, citing *Saunders Group, Inc. v. Comfortrac, Inc.*, 492 F.3d 1326, 1331 (Fed. Cir. 2007) (reversing district court’s construction because the intrinsic evidence did not require limiting the claimed “pneumatic cylinders” to include a “pressure activated seal” even though the patent specification included such an example).

Next, One-E-Way replied to Respondents’ argument that the claim term is indefinite because it is unclear what reference point to use when determining whether there has been a reduction of intersymbol interference. (*Id.*) One-E-Way observes that the plain language of the claim describes “reduced intersymbol interference coding” and that since the Federal Telecommunications Standard defines coding as “the altering of the characteristics of a signal to make the signal more suitable for an intended application...,” the reference point used in determining whether there has been a reduction in intersymbol interference is the amount of intersymbol interference that would have occurred had there been no coding. (CMIB at 48.)

One-E-Way replied to Respondents’ third argument concerning indefiniteness (that the claim term is supposedly indefinite because it recites no threshold amount of reduction necessary to qualify as “reduction”) by pithily (and cogently) pointing out the word/term “reduced” is not a term of degree. (*Id.*) More specifically, One-E-Way asserts the ordinary meaning of the claim language merely requires a binary result, *i.e.*, that there is some reduction (or no reduction), not that there is a requirement of any particular degree of reduction. ((*Id.*))

Staff's Position

The Staff is in agreement with One-E-Way. (SMIB at 16,20; SBPS at 3-4). However, the Staff points out some matters that are in addition to arguments made by One-E-Way.

The Staff contends that Respondents admission concerning the lack of disagreement concerning the meaning of the phrase “intersymbol interference” undermines Respondents’ arguments that the claim term at issue is confusing, especially since Respondents also recognized “that *“based on simply the grammar and words of the phrase,”* one might assume that this claim term *“refers to a category of coding schemes that ‘reduc[e] intersymbol interference.’”* (SMIB at 17, citing RMIB at 24 (emphasis added). Thus, the Staff contends the reference to coding schemes reducing intersymbol interference goes beyond mere assumption and instead becomes compelled by the language of the claims, disclosures in the specification, and discussions in the prosecution histories. (*Id.*)

Among the other persuasive arguments made by the Staff (and not repeated in the Discussion below) is its argument that the disclosures in the specification of the original parent application (‘196 Publication) teach a POSITA that: “reduced intersymbol interference coding” is “coding that reduces intersymbol interference.” (SMIB at 18.) The Staff notes that the ‘196 Publication states: *“An encoder 36 may be used to reduce intersymbol interference (ISI) by using a transform code to encode the digital signal. The reduction of ISI may lower the probability of a signal detection error in the audio receiver.”* (*Id.*, citing ‘196 Publication, ¶ 0013 (emphasis added).) The Staff explains that while Respondents do not dispute that this statement appears in the ‘196 Publication, their argument that: “[t]here is no description of any such transform code, [including] how it would work or be implemented” is really an argument that there is a lack of written description, which belongs in a motion for summary determination rather than a brief on claim construction. (*Id.*, citing RMIB at 25.) Hence, Respondents’ admissions that “intersymbol

interference is a well-known concept” and “reducing intersymbol interference is a functional goal in designing wireless communication systems” suggest the use of a code, such as a transform code, in reducing intersymbol interference is within the knowledge of a POSITA. (*Id.*, citing RMIB at 26.)

Discussion

Respondents’ arguments are misplaced. Thus, I agree with One-E-Way and the Staff, for the reasons argued by them, that these terms do not require a specific construction and should be given their plain and ordinary meaning, which is “coding that reduces intersymbol (inter-symbol) interference.” Instead, I find Respondents’ arguments are really a complaint about the broad nature of the claim and not indefiniteness. As the claims read, any degree of reduction is sufficient, which is what both the Staff and One-E-Way argue. As for the baseline, that is simply the point of interference that exists before the coding was employed to reduce interference. Both a reduction and a baseline are readily discernible for a POSITA and thus their meaning would be fully consistent with the plain meaning of the terms at issue.

I also note with particular approval the contentions of the Staff concerning the effect of the entire text of Claim 4 of the ’258 Patent, which states in pertinent part: (i) “an *encoder* operative to *encode* said original audio signal representation *to reduce intersymbol interference*”; and (ii) “a *decoder* operative to *decode* the applied *reduced intersymbol interference coding* of said original audio signal representation.” (SMIB at 17 citing the ’258 Patent at 6:5-6 (emphasis added); 6:24-26 (emphasis added). As the Staff convincingly argues, this claim language (plus other similar claim language) supports the conclusion that “reduced intersymbol interference coding” (recited in the “decoder” limitation) refers to “coding that reduces intersymbol interference” (described in the “encoder” limitation). (*Id.*, citing the ’258 Patent, 8:4-5 (“encoder” of claim 8), 8:18-19

(“decoder” of claim 8), 8:59-60 (“encoder” of claim 10), 9:8-10 (“decoder” of claim 10); the ‘391 Patent, 5:55-56 (“encoder” of claim 3), 6:7-10 (“decoder” of claim 3), 6:28-29 (“encoder of claim 4), 6:50-52 (“decoder” of claim 4).

I also find that the intersymbol interference cited in the “encoder” limitation and described in the “decoder” limitation mentioned above, must be given its plain and ordinary meaning for another reason. Specifically, Respondents, as also pointed out by the Staff, deliberately dropped the “encoder” limitation from their Joint Listing of Claim Terms for Construction and thus Respondents must accept that they have taken the position that limitation required no construction. (SBPS at 3.) Given the discussion in the previous paragraph, *supra*, this leaves only the plain and ordinary meaning to be available.

In closing on these terms, I note that I find the extrinsic evidence argued by Respondents to be unhelpful in this instance. Basically, Respondent and its expert conceded that:

(1) “intersymbol interference” has a well-known meaning; (2) the concept of “reducing” intersymbol interference is straightforward (for wireless communications); (3) there are various kinds/categories of “coding” for wireless communication systems. (See SBPS at 4.) Thus, Respondents’ expert offered nothing of value capable of altering the plain and ordinary meaning of the language at issue. Finally, I also find Respondents’ argument that Complainant offered no evidence concerning the term at issue to be mistaken. (CBPS at 5.)

F. Disputed term - “virtually free from interference”

The Parties’ Positions

“virtually free from interference” (“virtually free from interference from device transmitted signals operating in the [portable wireless digital audio system / wireless headphone / wireless digital audio system / digital wireless audio receiver] spectrum”)		
Complainant’s Proposed Construction	Respondents	Staff
One-E-Way proposes that this term should be construed in the context of the larger claim phrases in which it appears in the asserted patent claims, which are addressed below. “free from interference such that eavesdropping on device transmitted signals operating in the [portable wireless digital audio system / wireless headphone / wireless digital audio system / digital wireless audio receiver] spectrum cannot occur”	Indefinite.	Absent any opinion(s) provided by one of ordinary skill in the art on the meaning of this claim term, specifically with regard to the words “virtually free,” and therefore the scope of the invention, the Staff is of the view that this claim term is indefinite under 35 U.S.C. § 112.

The Parties’ Positions

Complainant’s Position

Complainant argues that the limitation “virtually free from interference” is not indefinite. Complainant argues that to overcome an indefiniteness challenge at this stage or next, it only needs to show that a person of ordinary skill in the art has reasonable certainty as to claim meaning. Complainant asserts that such evidence exists on the record. Specifically, Complainant

argues that certainty comes from the applicant's statement during prosecution about the specific term at issue, "virtually," in the context of the same type of interference recited in the claim language, during examination at a time when claims were pending that included the language "virtually free from interference." (CMRB at 23-24.) Complainant argues that Mr. McAlexander's testimony is undisputed that "[t]he concept of a user not being able to eavesdrop on the device transmissions of another user is consistent with the purpose ('private listening') and the mechanisms (separation of users by recognizing other transmissions as 'noise') disclosed in the patents." Complainant argues that its "no eavesdropping" construction addresses the concern about the difference between "virtually free from interference" and "free from interference." According to Complainant, avoiding eavesdropping indicates being "virtually free from interference," not necessarily completely "free from interference." Complainant argues that "no eavesdropping" represents an objective boundary by which to determine the scope of the limitation.

Respondents' Position

Respondents argue "virtually free from interference" is indefinite because one of ordinary skill in the art, after reading the claims, specification and prosecution history, would not be able to determine with reasonable certainty how much interference would be "virtually free from interference", versus "free from interference" and "not virtually free from interference." Respondents argue that "virtually free from interference" is not a term of art and does not have a specific meaning in the telecommunications field. Respondents assert that the term indicates that the amount of interference is low, but provides no indication of how low. Respondents argue that although Mr. McAlexander submitted two declarations, neither says that "virtually free from interference" has a specific meaning and he otherwise cites to the specification to "inform[]" the

meaning of the term, without discussing the ordinary meaning of “virtually free from interference.”

Respondents assert that there are known ways to define levels of interference in the ISM band, such as signal to noise ratios, packet errors and bit rate errors, but that the specifications gives no examples or descriptions and have no relevant figures relating to levels of interference. According to Respondents the specifications discuss “without interference” or “free from interference,” never “virtually free from interference.” Respondents argue that Complainants reliance on “private listening” is misplaced, because it would not provide boundaries to one of ordinary skill in the art since a device can provide private listening even with significant interference. Further, Respondents argue that what constitutes “private listening” is subjective and would differ from one person to another.

Respondents argue the statement relied on by Complainant in the prosecution history does not help to show what constitutes “virtually free from interference.” Specifically, Respondents argue the statement was related to the rejection of claims that use the term “free from interference,” not “virtually free from interference.” Also, Respondents argue the applicants use of “e.g.” indicates that statement was meant as an example and thus cannot serve as a definition of “virtually free from interference.” Respondents note that in other passages, when the applicant wanted to define something, he used “i.e.” Thus, Respondents argues the applicant knew when to use “i.e.” versus “e.g.”

Staff's Position

The Staff argues that the term “virtually free from interference” is indefinite. The Staff argues that there is nothing in the intrinsic record to indicate the metes and bounds of the limitation. The Staff asserts that while the specifications of the asserted patents describe a wireless digital audio system providing private listening or private audio enjoyment “*without*

interference” from other users of wireless devices, there is no evidence that the applicant acted as his own lexicographer and redefined the term “without interference” to mean “virtually free from interference.” The Staff argues that Complainant’s reliance on the prosecution history is misplaced because the applicant’s explanation related to the rejection of claims reciting “free from interference” not claims reciting “virtually free from interference.” (SMRB at 19-21.) Likewise, the Staff argues the opinions of Complainant’s technical expert, Mr. Joseph McAlexander, are based on an incorrect interpretation of the intrinsic evidence. (*Id.*) The Staff argues that even assuming that the applicant’s use of the word “virtually” during prosecution shows a direct correspondence between “where the interference is virtually eliminated” and “virtually free from interference,” the use of the term “e.g.” during prosecution demonstrates that the applicant did not clearly and deliberately define “where the interference is virtually eliminated” to mean “where eavesdropping cannot occur.” The Staff argues that even assuming further that the applicant clearly and deliberately defined the term “virtually free from interference” to mean “where eavesdropping cannot occur” through the allegedly corresponding statement of “where the interference is virtually eliminated,” this definition -- the absence of eavesdropping -- does not give meaning to claims reciting simply “free from interference” as it is still impossible to determine what condition beyond the absence of eavesdropping would indicate a state of “free from interference” that is presumably different in degree than a state of “virtually free from interference.” The Staff argues that absent any evidence, intrinsic or extrinsic, demonstrating that the term “virtually free from interference” should be redefined as proposed by Complainant, the asserted patents fail to inform a person of ordinary skill in the art how much interference is permitted by the asserted claims.

Discussion

One-E-Way argues the limitation “virtually free from interference” is properly construed to mean “free from interference such that eavesdropping on device transmitted signals operating in the ... spectrum cannot occur.” Respondents and the Staff argue the limitation is indefinite, because its metes and bounds cannot be discerned with reasonable certainty by one of ordinary skill in the art. For the reasons discussed more fully below I agree with Respondents and the Staff that the limitation “virtually free from interference” is indefinite under 35 U.S.C. § 112 because one of ordinary skill in the art would not be able to discern with reasonable certainty what amount or level of interference constitutes “virtually free from interference.”

The claim limitation “virtually free from interference” appears in each of the Asserted Claims of the Asserted Patents. Based on the language of the claims it is readily deduced that the phrase “virtually free from interference” must mean something different than the phrase “free from interference” as to conclude otherwise would be to impermissibly vitiate the adverb “virtually” from the claims of the asserted patents. *See Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed.Cir.2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”); *Pause Tech., LLC v. TiVo, Inc.*, 419 F.3d 1326, 1334 (Fed.Cir.2005) (“In construing claims, however, we must give each claim term the respect that it is due.”); *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1119 (Fed. Cir. 2004) (“Furthermore, we observe that Safari’s interpretation largely reads the term “operatively” out of the phrase “operatively connected.” While not an absolute rule, all claim terms are presumed to have meaning in a claim.”); *see also Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1305 (Fed. Cir. 2014) (“Apple’s construction essentially takes the claim text and removes the ‘analyzer server,’ leaving the rest basically unchanged. Thus, Apple’s construction conflicts with the claim language by ignoring the claim term ‘server.’”). Further support for this conclusion

can be found by looking to the claims of the '885 patent, the parent of the asserted '258 patent and grandparent of the asserted '391 patent. For example, claim 11 of the '885 patent requires that:

the transmitted audio signal is reproduced, providing a user of said portable transmitter and said audio receiver with private audio reproduction of said audio signal provided by said audio source *free from interference* when operated in a shared space containing at least one other user of wireless devices utilizing code division multiple access (CDMA) communication and utilizing an independent portable transmitter and audio receiver.

('885 patent at 6:41-49 (emphasis added).) Claim 12, on the other hand, requires that:

the transmitted audio signal is reproduced, providing a user of said portable transmitter and said audio receiver with private audio reproduction of said audio signal provided by said audio source *virtually free from interference* when operated in a shared space containing at least one other user of wireless devices utilizing code division multiple access (CDMA) communication and utilizing an independent portable transmitter and audio receiver in a shared space.

(*Id.* at 6:66-7:7 (emphasis added).) Additionally, claim 16 of the '885 patent includes both limitations:

the transmitted audio signal is reproduced, providing a user of said portable transmitter and said audio receiver with private audio reproduction of said audio signal *virtually free from interference* when operated in a shared space containing at least one other user of a wireless device utilizing an independent portable transmitter and audio receiver; and

listening to said audio output *free from interference* from at least one other user of a wireless devices in a shared space.

(*Id.* at 7:63-8:6 (emphasis added).) By drawing claims in the '885 patent to both “virtually free from interference” and “free from interference” it is clear the applicant understood the two phrases to be distinct. Thus, the '885 patent also supports a finding that the two phrases are different. Accordingly, for at least the reasons above, I find the limitation “virtually free from interference” in the asserted '391 and '258 patents, to be distinct from the phrase “free from interference.”

Although the claims of the '391 and '258 patents require the audio output to be “virtually free from interference,” there is no explanation of the metes and bounds of the limitation in the claims and there is no discussion of the phrase at all in either the specifications or the prosecution

histories of the asserted patents. Instead, the specifications (including that of the '885 patent) describe a wireless digital audio system providing private listening or private audio enjoyment “without interference” from other users of wireless devices. (See, e.g., CMIB, Ex. 1 ('258 Patent), Abstract, 1:64-66, 3:28-32; Ex. 2 ('391 Patent), Abstract, 2:1-3, 3:32-36.) One-E-Way asserts that the specifications of the asserted patents provide “abundant guidance” to one of ordinary skill in the art, arguing that “one of ordinary skill in the art would understand that users of the invention do not hear each other’s transmissions.” This argument, however, improperly conflates “without interference” with “virtually free from interference.”³ The specification teaches that “private listening” and “private audio enjoyment” are achieved as a result of there being an absence of interference (i.e., “without interference”). Nowhere does the specification tie “private listening” or “private audio enjoyment” with a level of interference that is other than zero (i.e., “without interference”). Moreover, nowhere does the specification explain how “private listening” or “private audio enjoyment” could be achieved when the level of interference is other than zero. Contrary to Complainant’s argument, the specification simply provides no guidepost for one of ordinary skill in the art to discern the metes and bounds of the limitation “virtually free from interference.”

Complainant relies heavily on the prosecution history in support of its claims construction argument. According to Complainant, the “prosecution history evidence ... provides a meaningful benchmark standard for determining when a wireless audio transmission is ‘virtually free from interference.’” (CMRB at 11-12.) Complainant does not rely on the prosecution history of the asserted patents, but the prosecution history of the parent '858 patent. Complainant must go back

³ I note there is nothing in the intrinsic record, and no party has asserted otherwise, to indicate the applicant acted as his own lexicographer to redefine “virtually free from interference” to mean “without interference.” Likewise, I note there is nothing in the intrinsic record, and no party has asserted otherwise, to indicate the applicant acted as his own lexicographer to redefine “virtually free from interference” to mean “free from interference.”

to the prosecution of the '858 patent and a single statement made by the applicant to find a guidepost one of ordinary skill in the art can allegedly follow to discern the scope of the limitation "virtually free from interference." Specifically, during prosecution of the '885 patent, the applicant explained that "Lavalley does not teach, disclose or suggest such a relationship where *interference is virtually eliminated (e.g. where eavesdropping cannot occur)*. (CMIB, Ex. 18 ('885 Patent File History, June 16, 2009 Response) at p. 3 (emphasis added).) According to Complainant, this passage "reinforces that, to reproduce audio 'virtually free from interference from device transmitted signals operating in [a particular] spectrum,' a system must reproduce audio sufficiently free from interference from such signals that eavesdropping on those signals cannot occur." (See CMIB at 38-39.) I disagree.

The statement on which Complainant relies was given in response to the patent examiner's rejection of certain claims in the '858 patent that do not include the limitation in question "virtually free from interference," but rather the limitation "free from interference." (RMIB, Ex. 39 ('885 Patent File History, June 8, 2009 Response, Amended Claims) at 5-7.) Thus, when the applicant's statement from the prosecution history is read in the context for which it was given, I find it impossible to agree with Complainant that one of ordinary skill in art would conclude that the applicant was providing guidance as to the meaning and scope of a different limitation (*i.e.*, "virtually free from interference") from different claims.

35 U.S.C. § 112, ¶ 2 requires that the specification of a patent "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Because claims delineate the patentee's right to exclude, the patent statute requires that the scope of the claims be sufficiently definite to inform the public of the bounds of the protected invention, *i.e.*, what subject matter is covered by the exclusive rights of the patent. Otherwise, competitors cannot avoid infringement, defeating the public notice function of patent claims.

Halliburton Energy Services, Inc. v. M-I LLC, 514 F.3d 1244, 1249 (Fed. Cir. 2008). To accept Complainant's argument would be to require a level of clairvoyance by one of ordinary skill in the art that would undermine the public notice function of patents.

In any event, Complainant's argument leads to a claim construction that is untenable. Under Complainant's proposed construction the limitation "virtually free from interference" means "free from interference such that eavesdropping on device transmitted signals operating in the [portable wireless digital audio system / wireless headphone / wireless digital audio system / digital wireless audio receiver] spectrum cannot occur." If, however, "virtually free from interference" means ***no eavesdropping***, as Complainant argues, then the limitation "free from interference" has no meaning because "no eavesdropping" already represents the maximum amount of eavesdropping that can be prevented.⁴

Complainant argues that tying its proposed construction of "virtually free from interference" to "no eavesdropping" addresses the concern about the difference between "virtually free from interference" and "free from interference," because avoiding eavesdropping indicates being "virtually free from interference," not necessarily completely "free from interference." I disagree. Complainant constructs this argument from whole cloth. There is no intrinsic evidence to suggest that the phrases "virtually free from interference" and "free from interference" are meant to be of differing scope, rather than differing degree. In fact, the parent '858 patent has claims that include the limitation "free from interference from ... device transmitted signals operating in the wireless digital audio system spectrum" demonstrating that the scope of the interference that the applicant was trying to eliminate (*i.e.*, "free from interference") in the '858 patent or virtually eliminate (*i.e.*, "virtually free from interference") in the asserted patents is the

⁴ The use of the term "eavesdropping" is problematic as it is unclear as to what the term's proper definition is in the context of the asserted patents and how one of ordinary skill in the art would be able to reasonably discern whether there was "no eavesdropping."

same—"device transmitted signals operating in the wireless digital audio system spectrum." (See '858 Patent, claims 17, 19, 20.) Therefore, the difference between the limitations "free from interference" and "virtually free from interference" must be one of degree and not of scope as Complainant argues. Thus, I find Complainant's argument not persuasive.

In addition to that which I have discussed above, I have a problem with the language of the claims not raised by the parties. I note that with regard to the limitation "virtually free from interference" the claims are drafted in two different manners. For example, claim 3 of the '391 patent recites in pertinent part "said audio having been wirelessly transmitted from said radio player virtually free from interference ...," while claim 1 of the '391 patent recites "said audio having been wirelessly transmitted and reproduced virtually free from interference." The parties all focus on the requirement of claim 3 that the audio must be "reproduced" virtually free from interference, but entirely ignore the explicit requirement of both claims 1 and 3 that the transmission of that audio from the transmitter to the receiver must also be virtually free from interference. This brings up a host of problems, not the least of which are that "virtually free from interference" must be construed consistently in both contexts and there is nothing in the intrinsic record that teaches, explains or discusses how the invention can transmit the audio virtually free from interference.

Accordingly, for at least the reasons set forth above, I find the limitation "virtually free from interference" indefinite because one of ordinary skill in the art would be unable to discern with reasonable certainty the limitation's metes and bounds.

G. Disputed term – “configured for independent CDMA communication operation”

<p align="center">“configured for independent CDMA communication operation” (“configured for independent code division multiple access (CDMA) operation”) (“configured for independent code division multiple access communication operation”)</p>		
Complainant’s Proposed Construction	Respondents’ Proposed Construction	Staff’s Proposed Construction
<p>One-E-Way does not believe that these related claim terms need to be construed; see proposed construction for “CDMA” above and treat these terms consistent with that other term.</p> <p>However, if the Court is inclined to construe these terms, then One-E-Way proposes that they should be construed consistent with their ordinary meaning as:</p> <p>“configured for code division multiple access (CDMA) communication operation performed independent of any central control”</p>	<p>“configured for code division multiple access (CDMA) communication operation performed independent of any central control, using the unique user code to spread or de-spread the signal spectrum”</p>	<p>The Staff is of the view that these related claim terms do not require construction.</p> <p>If construction is required, however, then the Staff proposes that these related claim terms should be construed consistent with their plain and ordinary meaning, which is “configured for code division multiple access (CDMA) communication operation performed independent of any central control.”</p>

The Parties’ Positions

Respondents’ Position

Respondents allege the term “configured for independent CDMA communication operation” (and its variants) needs to be construed because it does not appear in the applicable specification. (RMIB at 47.) Respondents contend that because One-E-Way relied upon a particular meaning to distinguish its invention over CDMA-based prior art during prosecution of the ’258 and ’391 patents, it is bound by that meaning. (*Id.*) Respondents argue the use of the

word independently in the claims cannot overcome One-E-Way's prosecution arguments. (*Id.* at 47-48.)

Respondents note the parties agree the construction should include the phrase "independent of any central control." (*Id.* at 48.) Respondents argue the root of the use of the word independent comes from the examiners rejection of claims 1-11 and 13-26 over U.S. Patent No. 5,771,441 (Alsatt) in view of U.S. Patent No. 6,781,977, (Li) the former disclosing FM modulation communication and the later teaching digital wireless communication. (*Id.*) In response, Respondents assert One-E-Way alleged that Li disclosed a "CDMA digital cellular communications system," which in contrast to the claimed invention "requires the centralized control of the base station for operation." (*Id.*, citing a Request for Reexamination, etc., dated June 7, 2010 from patent the history.) Continuing, Respondents allege One-E-Way stated the prior art's "centralized control base station system does not disclose a direct one-to-one transmitter-to-headphone communication link" and reemphasized the claim language "configured for independent CDMA communication operation . . ." reflects the distributed architecture." (*Id.*)

According to Respondents, to give meaning to the term "configured for independent CDMA communication operation" as used by One-E-Way to differentiate the prior art, the term should be construed to include at least: "configured for code division multiple access (CDMA) communication operation performed independent of any central control." (Words the Complainant and the Staff accept.) (*Id.*)

Despite the partial agreement between the parties, the construction proposed by the Staff and One-E-Way differs from that proposed by Respondents in that it does not reflect that the CDMA architecture in the Asserted Claims requires spreading and disspreading by the claimed unique user code to achieve independent operation. (RMIB at 49.) Respondents allege this is wrong because the prosecution history of the Asserted Patents ties the ability to operate

independently to the unique user code. (*Id.*) This, Respondents allege, means the “independent . . . communication operation” must be accomplished by applying the unique user code to spread and de-spread the signal spectrum. (*Id.*)

Respondents base the foregoing on their argument that, starting with the '012 Application, One-E-Way explained its invention utilizes unique user code (for both the receiver and transmitter) to avoid confusion with other codes to avoid interference. (*Id.*, citing to the '012 Application Prosecution History, Summary of Examiner Interview 3, dated May 21, 2008.) Further, Respondents allege that because the prior art disclosed the use of codes in centralized CDMA communications, One-E-Way further distinguished the prior art and the unique user codes of its present invention that were to provide independent CDMA communications. (RMIB at 49-50.) From here, Respondents expand their argument that the purpose of the unique codes was to prevent errors by using codes with low cross-correlation properties. (RMIB at 50.) According to Respondents, this meant that to create “time –asynchronous system” where multiple CDMA transmitters existed, the system had to employ CDMA architecture that used “the unique user codes of the invention” to spread or de-spread the signal spectrum. (*Id.*)

Complainant's Position

One-E-Way points out that neither it nor the Staff believes this term needs to be construed. (CMIB at 20.) One-E-Way notes that even though Respondents agree with every word in One-E-Way and the Staff's proposed construction, Respondents seek to go further and propose that the terms be narrowed to require additional language, specifically adding the limitation of “using the unique user code to spread or de-spread the signal spectrum.” (*Id.*)

One-E-Way contends there is nothing in the intrinsic record defining the claim term to require “using the unique user code to spread or de-spread the signal spectrum.” (*Id.*) In addition, One-E-Way disputes that it ever made a clear and unmistakable disavowing statement that would

require such a narrowing construction. (*Id.*) More specifically, One-E-Way states Respondents are incorrect to argue that “the prosecution history of the Asserted Patents ties the ability to operate independently to the unique user code.” (CMRB at 30, referencing RMIB at 49.) One-E-Way explains that while Respondents cite three excerpts from the prosecution history, only their last citation supports the disclaimer they allege (*Id.*, referencing RMIB at 49-51.) One-E-Way contends that even though the excerpt at issue does discuss codes, it expresses no clear intent to disclaim any particular type of codes. (*Id.*) Thus, according to One-E-Way, none of Respondents’ citations demonstrate that One-E-Way either acted as its own lexicographer to clearly set forth a definition different from the ordinary meaning, or expressed a clear and unmistakable disavowal to limit the claim term. (*Id.* noting *Thorner v. Sony Computer Entertainment*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Further, One-E-Way points out that as it has explained, the claim term itself already includes distinction over centralized CDMA by way of the concept that the CDMA communication operation is “independent,” and there is no basis to add further narrowing detail requiring a particular way of implementing that independence. (*Id.*)

One-E-Way also contends that the construction advocated by Respondents serve to narrow the limitation, which is contrary to the language of the limitation. (CBPS at 9.) In addition, there is no definition or other intrinsic proof capable of supporting narrowing the limitation. (*Id.*)

Staff’s Position

According to the Staff, Respondents’ proposed language conflicts with, *inter alia*, the applicant’s statement that “the claim language ‘configured for independent CDMA communication operation’ (as seen in Claims 1-12) *reflects the distributed architecture.*” (SMRB at 21-22, citing the ‘391 Patent File History, June 21, 2011 Response, p. 11 (1EWAY00000652) (emphasis added).) The Staff contends the applicant’s statement contains no requirement

regarding the use of the unique user code to spread or de-spread the signal spectrum for a distributed architecture or “independent operation,” as asserted by Respondents. (SMRB at 22.)

The Staff also alleges Respondents’ reliance on other statements made by the applicant during prosecution of parent applications to support their proposed language is incorrect. (*Id.*) As noted by the Staff, none of those statements were made with respect to the claim term at issue, “configured for independent CDMA communication operation.” (*Id.*, citing RMIB at 49-50; Ex. 27 (‘012 Application Prosecution History, May 21, 2008 Summary of Examiner Interview), pp. 2-4 (discussing “Fuzzy Logic System” within “Direct Conversion Receiver”); Ex. 40 (‘729 Application Prosecution History, February 18, 2009 Response), pp. 1EWAY00005661-5662 (discussing claim language “audio source output free from interference”).

Discussion

The parties’ dispute over the proper meaning of the claim term “configured for independent CDMA communication operation” (and related term) centers on whether the claim term requires recitation of “using the unique user code to spread or de-spread the signal spectrum,” as proposed by Respondents. But for the inclusion of the phrase “using the unique user code to spread or de-spread the signal spectrum” in Respondents’ proposed construction, the proposed constructions of the parties are identical.

Neither the claims nor the specifications provide support for Respondents’ proposed requirement of “using the unique user code to spread or de-spread the signal spectrum.” Respondents’ argument for requiring use of the unique user code “to spread or de-spread the signal spectrum” is based only on the applicant’s statements about the codes disclosed in the Lavalley prior art reference. (Tr. at 197:15-199:8.) Respondents’ reliance on the applicant’s statements about the Lavalley prior art codes is misplaced because the applicant’s statements did not discuss using the unique user code to spread or de-spread the signal spectrum and, moreover,

were not made with respect to the claim term at issue - “configured for independent CDMA communication operation.” (RMIB, Ex. 27 (‘012 Application Prosecution History, May 21, 2008 Summary of Examiner Interview) at 2-4 (discussing “Fuzzy Logic System” within “Direct Conversion Receiver”), Ex. 40 (‘729 Application Prosecution History, February 18, 2009 Response) at 1EWAY00005661-5662 (discussing claim language “audio source output free from interference . . .”). Accordingly, I find Respondents’ argument not persuasive.

Having disposed of Respondents’ argument for including the phrase “using the unique user code to spread or de-spread the signal spectrum” in the construction of the limitation “configured for independent CDMA communication operation,” Respondents’ proposed construction is left looking identical to the construction proposed by Complainant and Staff. For at least the reasons above, I find one of ordinary skill in the art at the time of the invention would construe the limitation “configured for independent CDMA communication operation” consistent with the language common to all the parties’ proposed constructions, namely “configured for code division multiple access (CDMA) communication operation performed independent of any central control.”

H. Disputed term - “unique user code”

Complainant’s Proposed Construction	Respondent’s Proposed Construction	Staff’s Proposed Construction
<p align="center">“unique user code” (“unique user code bit sequence”)</p>		
One-E-Way does not believe that these related claim terms need to be construed. However, if the Court is inclined to construe the terms, then One-E-Way proposes that they should be construed consistent with their ordinary meaning as:	“fixed code (bit sequence) specifically associated with one user”	<p>The Staff is of the view that these related claim terms do not require construction.</p> <p>If construction is required, however, then the Staff proposes that these related claim terms should be construed consistent with their</p>

“code (bit sequence) that distinguishes a transmission of a user’s device from those of other users’ devices, and the code is fixed during that transmission”		plain and ordinary meaning, which is “fixed code (bit sequence) specifically associated with one user.”
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The Parties’ Positions

Complainant’s Position

One-E-Way argued in its opening brief that the term “unique user code” need not be construed, but that if it is construed it is properly construed to mean “code (bit sequence) that distinguishes a transmission of a user’s device from those of other users’ devices, and the code is fixed during that transmission.” However, in One-E-Way’s Bullet Point Summary of Claim Construction Arguments filed after the Markman Hearing, One-E-Way states that it agrees with the construction I proposed during the Markman--“fixed code (bit sequence) only associated with one user (of a device(s)).” One-E-Way argues that contrary to Respondent’s argument, the term fixed does not mean fixed for all time. One-E-Way states that it “agrees with Staff’s explanation and the Court’s understanding that the word ‘fixed’ does not means fixed for all time.” (internal citations omitted)

Respondents’ Position

Respondents argue that “unique user code” means “fixed code (bit sequence) specifically associated with one user.” Respondents argue that their proposed construction is supported by the claim language, the specification and the prosecution history. Respondents argue that the code is associated with a user of a device. According to Respondents, One-E-Way distinguished between a device code and a user code during prosecution, and never suggested that the user code was associated with a device. Respondents argue that the intrinsic record supports finding that the

unique user code is a fixed code that is fixed indefinitely. Respondents argue that use of the word “fixed” in their proposed construction is consistent with the one-to-one relationship required by the term unique. Respondents argue that if the code is not fixed indefinitely, then the code changes and is no longer unique. Respondents argue that during prosecution, One-E-Way attempted to distinguish “unique user code” from a code generated by “Walsh code generators and PN (pseudo random number) generators.” (RMIB at 54 (citing Ex. 24, ’012 App. Prosecution Hist., Response to Final Office Action, 29 (Sept. 20, 2007).).) Specifically, Respondents assert that One-E-Way stated that “[the prior art] does not teach a unique user code, as claimed,” because “while these generators produce a code, such code is designed to change. Thus, [the prior art] codes are not a ‘unique’ user code.” (*Id.* (emphasis added).) Respondents argue that One-E-Way equated “unique user code” with code not “designed to change,” *i.e.*, fixed. Respondents assert that the applicant’s statement is unambiguous and means just what it says. Thus, according to Respondents, a code that changes at any time is not fixed.

Staff’s Position

The Staff argues that “unique user code” does not need to be construed, but if it is construed that it should be construed consistent with the term’s plain ordinary meaning as “fixed code (bit sequence) specifically associated with one user.” The Staff asserts that the dispute over the proper meaning of the claim term “unique user code” (and related claim term) centers on whether the “unique user code” must be “fixed.” The Staff asserts that while Respondents adopted the language of the Staff’s proposed construction for this claim term, Respondents’ proposed construction is not exactly the same as the Staff’s proposed construction. Specifically, the Staff argues that its proposed construction requires that the “unique user code” be “fixed” such that there is a one-to-one correspondence between a transmitter and a receiver of the “unique user

code.” In contrast, the Staff argues the Respondents’ proposed construction also requires that the “unique user code” be “fixed” indefinitely (*i.e.*, “for all time”).

The Staff argues that Respondents’ (and Complainant’s) attempt to introduce a temporal limitation, specifically with respect to the transmission and/or reception of the “unique user code,” misses the point of the applicant’s apparent distinction between (i) Lavelle’s prior art codes, which are “designed to change” depending on the transmission between a single transmitter and multiple receivers, and (ii) the “unique user code,” which is not designed to change (*i.e.*, which is “fixed”) because of the one-to-one correspondence between a single transmitter and a single receiver.

Discussion

In light of the parties’ arguments at the Markman hearing, I proposed a construction for the term “unique user code” be construed to mean a “fixed code (bit sequence) only associated with one user (of a device(s)).” Both the Staff and One-E-Way have stated that they agree with that proposed construction. With regard to Staff, my proposed construction is substantively the same as the construction originally proposed by Staff. With regard to One-E-Way, however, my construction differs in two main respects from the construction originally proposed by One-E-Way. First my construction does not limit the word “fixed” to a single transmission. Second, my construction makes clear the fixed code is associated with “one user (of a device(s))” and not a “user’s device.” As One-E-Way now agrees with my proposed construction, it would appear One-E-Way has abandoned its previous arguments to the contrary. In any event, I do not find the intrinsic evidence supports One-E-Way’s originally proposed construction.

More so, I find the intrinsic evidence to be inconsistent with both One-E-Way’s and Respondents’ originally proposed constructions. The specifications of the asserted patents describe the unique user code as follows:

The battery powered transmitter 20 may contain a code generator 44 that may be used to create a unique user code. The unique user code generated is specifically

associated with one wireless digital audio system user, and it is the only code recognized by the battery powered headphone receiver 50 operated by a particular user.

(‘258 Patent at 2:50-55; ‘391 Patent at 2: 54:59.) Contrary to One-E-Way’s proposed construction, the specifications teach that the unique user code is “specifically associated with one wireless digital audio system user,” not just the device. (See ‘258 Patent at 2:50-53; ‘391 Patent at 2:54-57; *see also* (RMIB, Ex. 29 (‘258 Patent File History, February 4, 2010 Response) at 5-7; Ex. 18 (‘294 Patent File History, August 15, 2006 Response) at 36-37.) Likewise, the passage illustrates that the unique user code is not merely associated with one user, as Respondent’s propose, but rather associated with one user *of a device* (e.g., “the battery powered headphone receiver 50 operated by a particular user”). (*Id.*)

While Respondents’ and Staff’s proposed constructions are worded identically as “fixed code (bit sequence) specifically associated with one user,” each party has its own understanding of what “fixed” means. The Staff’s proposed construction requires that the “unique user code” be “fixed” such that there is a one-to-one correspondence between a transmitter and a receiver of the “unique user code.” (Tr. at 237:22-238:10; 239:17-22.) In contrast, Respondents’ proposed construction requires that the “unique user code” be (i) “fixed” such that there is a one-to-one correspondence between a transmitter and a receiver of the “unique user code”; and (ii) “fixed” indefinitely (*i.e.*, “for all time”). (Tr. at 231:7-21; 243:14-23.) Respondents point to the prosecution history in support of their argument that the user code must be fixed *indefinitely*. Specifically, Respondents point to the applicant’s statement that “[the prior art] does not teach a unique user code, as claimed” because “while these generators produce a code, such code is designed to change. Thus, [the prior art] codes are not a ‘unique’ user code.” Respondents argue that if the unique code is not fixed indefinitely then it undeniably changes, which is exactly what the applicant said the code isn’t designed to do. Respondents make their argument in the vacuum

of the two sentences they quote above with no context as to the prior art the patentee was trying to overcome. Read in context, it is clear to me that when the applicant contrasted the asserted prior art from the claimed invention by stating that in the prior art “such code is designed to change” the applicant was not saying that the claimed unique codes never change, but rather was drawing a distinction between the prior art codes, which are “designed to change” depending on the transmission between a single transmitter and multiple receivers, and the “unique user code,” which is not designed to change (*i.e.*, which is “fixed”) because of the one-to-one correspondence between a single transmitter and a single receiver. *Markman* Hearing Tr. at 237:22-238:10; 239:17-22. Thus, I find Respondents’ argument not persuasive.

Accordingly, for the reasons above, I find one of ordinary skill in the art at the time of the invention would construe the limitation “unique user code” to mean “fixed code (bit sequence) specifically associated with one user of a device(s).”

I. Disputed term – “direct conversion module”

The parties’ position on the meaning of this claim term is as follows:

“direct conversion module”		
Complainant’s Proposed Construction	Respondents’ Proposed Construction	Staff’s Proposed Construction
One-E-Way does not believe that this term needs to be construed. However, if the Court is inclined to construe the term, then One-E-Way proposes that it should be construed consistent with its ordinary meaning as: “module for converting radio frequency to baseband or very near baseband without first converting to an intermediate frequency”	“module for converting radio frequency to baseband in a single frequency conversion without an intermediate frequency”	The Staff is of the view that this claim term does not require construction. If construction is required, however, then the Staff proposes that this claim term should be construed consistent with its plain and ordinary meaning, which is “module for converting radio frequency to baseband or very near baseband in a single frequency conversion without an intermediate frequency.”

The Parties' Positions

Complainant's Position

One-E-Way argues that the term “direct conversion module” need not be construed, but that if it is construed it is properly construed to mean a “module for converting radio frequency to baseband or very near baseband without first converting to an intermediate frequency.” Complainant argues that the clear and repeated teachings in the intrinsic evidence demonstrate that direct conversion is “to baseband or very near baseband.” Complainant argues that the patent claims were examined in view of applicant’s statements confirming that conversion is to baseband “or very near baseband,” and public notice was accomplished through the clear and repeated statements in file history. Complainant argues that Respondents seek to improperly narrow the claims by requiring that conversion be limited to precisely baseband. According to Complainant, the only support Respondents offer in support of their argument is attorney argument discussing various extrinsic text and articles.

Respondents' Position

Respondents argue that “direct conversion module” means a “module for converting radio frequency to baseband in a single frequency conversion without an intermediate frequency.” Respondents argue that a direct conversion module converts to baseband, not merely “very near” baseband as Complainant and Staff contends. Respondents argue that all extrinsic evidence submitted in briefing support Respondents’ construction. According to Respondents, conversion to baseband, as opposed to a low frequency, is what distinguishes direct conversion modules from near-zero intermediate frequency (“NZIF”) modules. Respondents argue that Complainant’s and Staff’s reliance on the applicant’s statements in the prosecution history are misplaced, because the prosecution history can narrow, but not enlarge the scope of the claims. Thus, Respondents argue One-E-Way’s statements during prosecution cannot, as a matter of law, expand the meaning of

“direct conversion module” beyond its well-established plain and ordinary meaning. Respondents also argue that “very near” baseband would render the claims indefinite.

Staff’s Position

The Staff argues that “direct conversion module” does not need to be construed, but if it is construed that it should be construed consistent with the term plain ordinary meaning as a “module for converting radio frequency to baseband or very near baseband in a single frequency conversion without an intermediate frequency.” The Staff asserts the dispute over the proper meaning of the term “direct conversion module” centers on whether the conversion must be to “baseband,” as proposed by Respondents, or can be to “baseband or very near baseband,” as proposed by the Staff and Complainant. The Staff argues that the applicant expressly and repeatedly stated during prosecution of the Asserted Patents that the “direct conversion module” disclosed in the applicant’s invention “performs direct down conversion from radio frequency (RF) to baseband or (very near baseband).” (SMIB at 25-26.) The Staff argues that Respondents do not point to any intrinsic evidence to explain the plain and ordinary meaning of “direct conversion module,” but rather cite only to extrinsic evidence (including text and articles but excluding any opinions from a person of ordinary skill in the art) to provide a purported plain and ordinary meaning of “direct conversion module.” The Staff argues that to determine the meaning of claims, courts start by considering the intrinsic evidence, not the extrinsic evidence, with an understanding that, *inter alia*, the patentee may define a term when drafting the specification or prosecuting the patent. (Staff Bullet-Point at 13 (citing *Phillips v. AHW Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005).) According to the Staff, if the specification or prosecution history defines a claim term, then that definition will apply even if it differs from the term’s ordinary meaning. (*Id.* (citing *CSC Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).)

Discussion

During briefing, One-E-Way stated that it “would also agree with the construction proposed by the Staff.” (See CMIB at 28.) Thus, the parties’ dispute is reduced to whether the claimed “direct conversion module” converts the radio frequency to “baseband,” as Respondents’ argue, or “baseband or very near baseband,” as One-E-Way and Staff argue.

The applicant expressly and repeatedly stated during prosecution of the asserted patents, in response to the examiner’s rejections of claims as obvious under 35 U.S.C. 103, that the “direct conversion module” disclosed in the applicant’s invention “performs direct down conversion from radio frequency (RF) to *baseband or (very near baseband)*.” Specifically, the applicant stated during prosecution of the ‘258 patent: “The DCR [(direct conversion module)] disclosed in the present invention, among other things, performs direct down conversion from radio frequency (RF) to *baseband or (very near baseband)*, thus omitting intermediate frequency (IF) down conversion components that are often used. The invention utilizes the DCR for, among other things, down conversion from RF-to-*baseband (or very near baseband)*, eliminating unnecessary IF components, which reduces the size and power consumption of the module.” (CMIB, Ex. 17 (‘258 File History, August 4, 2010 Response) at 6 (emphasis added). Likewise, the applicant made similar statements about the DCR converting to baseband or very near baseband during prosecution of the ‘391 Patent. (See CMIB, Ex. 13 (‘391 Patent File History, June 21, 2011 Response) at 13; Ex 12 (‘391 Patent File History, August 2, 2011 Response) at 14. Thus, I find the intrinsic record clearly supports One-E-Way’s and the Staff’s proposed constructions.

Respondents ask me to ignore the intrinsic evidence in light of the extrinsic evidence it has presented. I will not do so. Respondents’ argument is not supported by the testimony of one of ordinary skill in the art. Rather, Respondents rely solely on attorney argument. Nowhere in the record before me is there evidence that one of ordinary skill in the art at the time of the invention

would construe the limitation “direct conversion module” in the manner proposed by Respondents. Moreover, contrary to Respondents’ argument, not all of the extrinsic evidence cited by the parties supports Respondents’ proposed construction. One-E-Way specifically cites to the book “RF Engineering for Wireless Networks: Hardware, Antennas, and Propagation,” by Daniel M. Dobkin, which states that a direct conversion module may convert to very near baseband. (*See* CMIB, Ex. 24 (Dobkin) at 112.)

Respondents argue that One-E-Way’s statements during prosecution cannot, as a matter of law, expand the meaning of “direct conversion module” beyond its well-established plain and ordinary meaning. Respondents, however, present no evidence of what the plain and ordinary meaning of this limitation is to one of ordinary skill in the art. Therefore, Respondents have no support for their argument that the applicant improperly expanded the scope of the term “direct conversion module” beyond its plain and ordinary meaning. Thus, I find Respondents’ argument not persuasive.

Accordingly, for at least the reasons above, I find one of ordinary skill in the art at the time of the invention would construe the limitation “direct conversion module” to mean a “module for converting radio frequency to baseband or very near baseband in a single frequency conversion without an intermediate frequency.”

IV. CONCLUSION

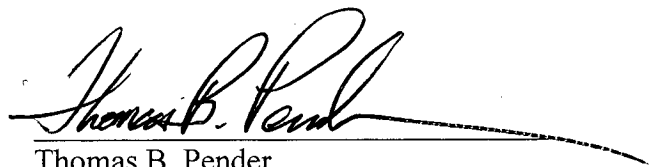
I find that the following terms of the asserted patents shall be construed as set forth below:

- The term “CDMA” shall be construed to have its plain and ordinary meaning, which is the claim language itself.
- The term “original audio signal representation in packet format” shall be construed to have its plain and ordinary meaning, which is the claim language itself.

- The terms “reduced intersymbol interference coding” and “reduced inter-symbol interference coding” shall be given their plain and ordinary meaning, which is “coding that reduces intersymbol (inter-symbol) interference.”
- The term “configured for independent CDMA communication operation” shall be construed to mean “configured for code division multiple access (CDMA) communication operation performed independent of any central control.”
- The term “unique user code” shall be construed to mean “fixed code (bit sequence) specifically associated with one user of a device(s).”
- The term “direct conversion module” shall be construed to mean a “module for converting radio frequency to baseband or very near baseband in a single frequency conversion without an intermediate frequency.”

As discussed in detail, *supra*, I find based on the record before me that the limitation “virtually free from interference” is indefinite and thus I am unable to offer a claim construction for the limitation.

SO ORDERED.


Thomas B. Pender
Administrative Law Judge

CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **PUBLIC ORDER NO. 12** has been served upon the **Commission Investigative Attorney, Vu Bui, Esq.**, and the following parties as indicated on JUL 24 2015.



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IN THE MATTER OF CERTAIN WIRELESS HEADSETS

337-TA-943

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