

859 F.3d 1059  
United States Court of Appeals,  
Federal Circuit.

ONE-E-WAY, INC., Appellant

v.

INTERNATIONAL TRADE COMMISSION, Appellee  
Sony Corporation, Sony Corporation of America,  
Sony Electronics, Inc., [BlueAnt Wireless Pty, Ltd.](#),  
[BlueAnt Wireless, Inc.](#), [Creative Technology Ltd.](#),  
[Creative Labs, Inc.](#), [GN Netcom A/S](#), Intervenors

2016-2105

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Decided: June 12, 2017

### Synopsis

**Background:** Patentee brought proceeding against competitors for infringement of patents for wireless digital audio system designed to allow private use of wireless headphones without interference. The United States International Trade Commission, [No. 337-TA-943, 2015 WL 13172716](#), construed patents and ruled them invalid. Patentee appealed.

**[Holding:]** The Court of Appeals, [Stoll](#), Circuit Judge, held that “virtually free from interference” was not indefinite, but rather meant that the claimed invention did not allow for eavesdropping.

Reversed.

[Prost](#), Chief Judge, filed dissenting opinion.

West Headnotes (8)

#### [1] **Customs Duties**

🔑 **Mode of review**

Court of Appeals reviews de novo the International Trade Commission's grant of summary determination in a patent infringement proceeding.

[Cases that cite this headnote](#)

#### [2] **Patents**

🔑 **Patentability and Validity**

Patent claim's indefiniteness is a question of law that Court of Appeals reviews de novo, subject to a determination of underlying facts. [35 U.S.C.A. § 112](#).

[Cases that cite this headnote](#)

#### [3] **Patents**

🔑 **Presumption of correctness in general**

#### **Patents**

🔑 **Degree of proof**

Court presumes that patents are valid, so any fact critical to a holding on indefiniteness must be proven by the challenger by clear and convincing evidence. [35 U.S.C.A. §§ 112, 282](#).

[1 Cases that cite this headnote](#)

#### [4] **Patents**

🔑 **Ambiguity, Uncertainty, or Indefiniteness**

All patent claims suffer from the inherent limitations of language but must be precise enough to afford clear notice of what is claimed. [35 U.S.C.A. § 112](#).

[Cases that cite this headnote](#)

#### [5] **Patents**

🔑 **Ambiguity, Uncertainty, or Indefiniteness**

As long as claim terms satisfy the test for indefiniteness, relative terms and words of degree do not render patent claims invalid. [35 U.S.C.A. § 112](#).

[Cases that cite this headnote](#)

#### [6] **Patents**

🔑 **Ambiguity, Uncertainty, or Indefiniteness**

To determine whether a particular term is indefinite, one must bear in mind that patents are not addressed to lawyers, or even to the public generally, but rather to those skilled in the relevant art. 35 U.S.C.A. § 112.

[Cases that cite this headnote](#)

## [7] Patents

🔑 Particular products or processes

### Patents

🔑 Radio and telecommunications equipment

“Virtually free from interference,” in patents for wireless digital audio system designed to allow private use of wireless headphones without interference, was not indefinite, but rather meant that the claimed invention did not allow for eavesdropping; claims named source of interference as signals transmitted by other wireless audio transmission devices, specification further stated that private listening was without interference from other users' wireless devices, and prosecution history of related patent indicated that “virtually free from interference” referred to ability to listen without eavesdropping. 35 U.S.C.A. § 112.

[Cases that cite this headnote](#)

## [8] Patents

🔑 In general;utility

US Patent 7,865,258, US Patent 8,131,391. Construed and Patentable.

[Cases that cite this headnote](#)

\*1060 Appeal from the United States International Trade Commission in Investigation No. 337-TA-943.

### Attorneys and Law Firms

DOUGLAS GLEN MUEHLHAUSER, Knobbe, Martens, Olson & Bear, LLP, Irvine, CA, argued for appellant. Also represented by CAMERON

JAHANSOUZ, ALAN GRAYSON LAQUER, PAYSON J. LEMEILLEUR.

MEGAN MICHELE VALENTINE, Office of the General Counsel, United States International Trade Commission, Washington, DC, argued for appellee. Also represented by DOMINIC L. BIANCHI, WAYNE W. HERRINGTON.

JOHN FLOCK, Andrews Kurth Kenyon LLP, New York, NY, argued for all intervenors. Intervenors Sony Corporation, Sony Corporation of America, Sony Electronics, Inc., also represented by KSENIA TAKHISTOVA; PAUL T. QUALEY, AIMEE NOELLE SOUCIE, Washington, DC.

DUANE H. MATHIOWETZ, LeClair Ryan, San Francisco, CA, for intervenors BlueAnt Wireless Pty, Ltd., BlueAnt Wireless, Inc. Also represented by PATRICIA LYNN PEDEN.

JONATHAN DANIEL BAKER, Farney Daniels PC, San Mateo, CA, for intervenors Creative Technology Ltd., Creative Labs, Inc. Also represented by MICHAEL D. SAUNDERS, GURTEJ SINGH.

WILLIAM B. NASH, Haynes and Boone LLP, San Antonio, TX, for intervenor GN Netcom A/S. Also represented by JASON WAYNE WHITNEY; GLENN WESTREICH, San Jose, CA.

Before Prost, Chief Judge, Wallach, and Stoll, Circuit Judges.

### Opinion

Dissenting opinion filed by Chief Judge Prost.

Stoll, Circuit Judge.

The International Trade Commission found the claim term “virtually free from interference” indefinite and invalidated the asserted claims of One-E-Way's patents. Because we conclude that the term “virtually free from interference,” as properly interpreted in light of the specification and prosecution history, would inform a person of ordinary skill in the art about the scope of the invention with reasonable certainty, we reverse.

## BACKGROUND

## I.

One-E-Way filed a complaint with the International Trade Commission accusing, among others, Respondents Sony Corporation; Sony Corporation of America; Sony Electronics, Inc.; BlueAnt Wireless Pty, Ltd.; BlueAnt Wireless, Inc.; Creative Technology Ltd.; Creative Labs, Inc.; and GN Netcom A/S (collectively, “Respondents”) of infringing two of its related patents, [U.S. Patent Nos. 7,865,258](#) and [8,131,391](#). One-E-Way asserted, *inter alia*, claim 8 of the ['258 patent](#) and claims 1, 3–6, and 10 of the ['391 patent](#).

## II.

Both patents disclose a wireless digital audio system designed to let people use wireless headphones privately, without interference, even when multiple people are using wireless headphones in the same space. ['258 patent](#), Abstract.<sup>1</sup> The specification [\\*1061](#) explains that previous wireless digital audio systems did not, among other things, provide “private listening without interference where multiple users occupying the same space are operating wireless transmission devices.” *Id.* at col. 1 ll. 15–49. The specification further explains that the prior art “audio systems ma[de] use of electrical wire connections between the audio source and the headphones to accomplish private listening to multiple users.” *Id.* at col. 1 ll. 40–42.

<sup>1</sup> Because the ['258](#) and ['391 patents](#) share the same specification, we cite only to the ['258 patent](#), with the understanding that these citations also refer to the corresponding sections of the ['391 patent](#).

The patents purport to solve these problems in the prior art by disclosing a digital wireless audio system that ensures private listening. Specifically, the patent specification proposes changing the way prior art systems sent and processed the wireless signal. It suggests sending a digitally encoded signal to ensure each user can independently access his or her transmission. *Id.* at col. 3 ll. 16–18. It further suggests processing the signal with a fuzzy logic detection subsystem to enhance signal clarity. *Id.* at col. 3 ll. 40–43, 56–59. These and other

improvements enable a user “to listen (privately) to high fidelity audio music, using any of the audio devices listed previously, without the use of wires, and without interference from any other receiver headphone ... user, even when operated within a shared space.” *Id.* at col. 3 ll. 28–32.

## III.

At the Commission, the parties disputed whether the claim term “virtually free from interference” was indefinite. While the term is present in all the asserted claims, we reproduce claim 8 of the ['258 patent](#) below as illustrative:

8. A portable wireless digital audio system for digital transmission of an original audio signal representation from a portable audio source to a digital audio headphone, said portable wireless digital audio system comprising:

a portable digital audio transmitter configured to couple to said portable audio source and transmitting a unique user code bit sequence with said original audio signal representation in packet format, said digital audio transmitter comprising:

an encoder operative to encode said original audio signal representation to reduce intersymbol interference; and

a digital modulator configured for independent code division multiple access (CDMA) communication operation; and said portable digital audio transmitter configured for direct digital wireless communication with said digital audio headphone, said digital audio headphone comprising:

a direct conversion module configured to capture packets embedded in the received spread spectrum signal, the captured packets corresponding to the unique user code bit sequence;

a digital demodulator configured for independent CDMA communication operation;

a decoder operative to decode the applied reduced intersymbol interference coding of said original audio signal representation;

a digital-to-analog converter (DAC) generating an audio output of said original audio signal representation; and

a module adapted to reproduce said generated audio output, said audio having been wirelessly transmitted from said portable audio source *virtually free from interference* from device transmitted signals operating in the portable wireless digital audio system spectrum.

*Id.* at col. 7 l. 62 – col. 8 l. 27 (emphasis added).

\***1062** Respondents and the Commission's Office of Unfair Import Investigation (“the Staff”) both asserted that “virtually free from interference” was indefinite. One-E-Way, to the contrary, proposed that the term meant “free from interference such that eavesdropping on device transmitted signals operating in the ... wireless digital audio system spectrum cannot occur.” J.A. 11454. As the administrative law judge explained, One-E-Way contended that “the specifications of the asserted patents provide ‘abundant guidance’ to one of ordinary skill in the art” to understand that “virtually free from interference” requires “that users of the invention do not hear each other’s transmissions.” J.A. 12927. The ALJ conducted a claim construction hearing and issued a decision finding “virtually free from interference” indefinite under **35 U.S.C. § 112**. J.A. 12921–30.

Respondents filed a motion for summary determination that the term “virtually free from interference” is indefinite, which the ALJ granted. J.A. 6–93. The ALJ concluded that the “term ‘virtually free from interference’ is not defined in the Asserted Patents or their history” and does not “have an understood meaning in the relevant art.” J.A. 87. The ALJ explained that he found “virtually free from interference” to be indefinite because one of ordinary skill in the art had “no guidepost in the intrinsic or extrinsic evidence from which [she] could discern the scope of the limitation.” J.A. 88.

One-E-Way petitioned the Commission to review the ALJ's summary-determination order. J.A. 2. The Commission agreed with the ALJ that “virtually free from interference” was indefinite. *Id.* The Commission thus affirmed the ALJ's order.

One-E-Way appealed. We have jurisdiction under **28 U.S.C. § 1295(a)(6)**.

## DISCUSSION

[1] [2] [3] We review the Commission's grant of summary determination de novo. *Amgen, Inc. v. Int'l Trade Comm'n*, 565 F.3d 846, 849 (Fed. Cir. 2009). “Indefiniteness is a question of law that we review de novo, subject to a determination of underlying facts.” *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1343 (Fed. Cir. 2016) (internal citation omitted). We presume that patents are valid, so “[a]ny fact critical to a holding on indefiniteness ... must be proven by the challenger by clear and convincing evidence.” *Cox Commc'ns, Inc. v. Sprint Commc'n Co. LP*, 838 F.3d 1224, 1228 (Fed. Cir. 2016) (alteration in original) (quoting *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1366 (Fed. Cir. 2003)); see also 35 U.S.C. § 282.

### I.

[4] The Patent Act requires inventors to claim their invention in “full, clear, concise, and exact terms.” **35 U.S.C. § 112**. This indefiniteness requirement is “part of the delicate balance the law attempts to maintain between inventors, who rely on the promise of the law to bring the invention forth, and the public, which should be encouraged to pursue innovations, creations, and new ideas beyond the inventor's exclusive rights.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731, 122 S.Ct. 1831, 152 L.Ed.2d 944 (2002). This balance recognizes that all claims suffer from “the inherent limitations of language,” but also that claims must “be precise enough to afford clear notice of what is claimed.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, — U.S. —, 134 S.Ct. 2120, 2128–29, 189 L.Ed.2d 37 (2014). This balance permits “[s]ome modicum of uncertainty” to “ensur[e] the appropriate incentives for innovation,” but it also provides a “meaningful definiteness check” to prevent patent applicants from \***1063** “inject[ing] ambiguity into their claims.” *Id.* (internal quotations omitted). Recognizing this balance, the Supreme Court articulated the test for indefiniteness as “requir[ing] that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Id.*

at 2129. This test “man-dates clarity, while recognizing that absolute precision is unattainable.” *Id.*

[5] [6] As long as claim terms satisfy this test, relative terms and words of degree do not render patent claims invalid. *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014). To determine whether a particular term is indefinite, “[o]ne must bear in mind ... that patents are ‘not addressed to lawyers, or even to the public generally,’ but rather to those skilled in the relevant art.” *Nautilus*, 134 S.Ct. at 2128–29 & n.5 (quoting *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 437, 22 S.Ct. 698, 46 L.Ed. 968 (1902), and citing *Eibel Process Co. v. Minn. & Ont. Paper Co.*, 261 U.S. 45, 58, 65–66, 43 S.Ct. 322, 67 L.Ed. 523 (1923)). For example, in 1923, the Supreme Court “uph[eld] as definite a patent for an improvement to a paper-making machine, which provided that a wire be placed at a ‘high’ or ‘substantial elevation.’ ” *Nautilus*, 134 S.Ct. at 2129 n.5 (citing *Eibel Process*, 261 U.S. at 58, 43 S.Ct. 322). The Court explained that these relative terms—“substantial” and “high”—were sufficiently definite because “ ‘readers ... skilled in the art of paper making and versed in the use of the ... machine’ would have ‘no difficulty ... in determining ... the substantial [elevation] needed’ for the machine to operate as specified.” *Id.* (quoting *Eibel Process*, 261 U.S. at 65–66, 43 S.Ct. 322).

This historical practice continues today. In one of our post-*Nautilus* decisions, we upheld as definite a claim that employed the relative term “substantially centered.” *Apple Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 1002 (Fed. Cir. 2015), *rev'd and remanded on other grounds*, — U.S. —, 137 S.Ct. 429, 196 L.Ed.2d 363 (2016). The claim term, used in a patent relating to a user-interface feature, required that a selected portion of an electronic display be enlarged and “substantially centered” on the display. *Id.* (quoting U.S. Patent No. 7,864,163 (Claim 50)). The patent challenger had failed to adduce any evidence showing that the person of ordinary skill would lack reasonable certainty in the claim's scope, while the patent owner had presented expert testimony that skilled artisans would interpret “substantially centered” in the patent “to mean essentially centered except for a marginal spacing to accommodate ancillary graphical user interface elements.” *Id.* at 1003. Moreover, the expert's suggested interpretation of “substantially centered” paralleled the patent specification's disclosure. *Id.* Relying on these

disclosures, the court concluded that “substantially centered” was not indefinite. *Id.*

## II.

[7] Here, we must determine whether the term “virtually free from interference” is indefinite.<sup>2</sup> The Commission determined that the term is indefinite, and both the Government and Respondents urge affirmance of that conclusion on appeal. One-E-Way proposes that the claim term, viewed in light of the specification and prosecution \*1064 history, should be interpreted to mean “free from interference such that eavesdropping on device transmitted signals operating in the ... wireless digital audio system spectrum cannot occur.” J.A. 11454; Appellant Br. 13. Put simply, One-E-Way proposes that “virtually free from interference” prevents one user from eavesdropping on another. We agree.

<sup>2</sup> While the parties both focus their argument on whether the term “virtually free from interference” is indefinite, the entire disputed claim term differs slightly in each of the asserted claims, but it takes the following general form: “virtually free from interference from device transmitted signals operating in the [wireless digital audio system] spectrum.” J.A. 11454.

### A.

First, the claims require that the system user's audio is “virtually free from interference” from signals transmitted by other users' wireless audio transmission devices. For example, claim 8 of the '258 patent requires a “digital audio system comprising ... a module adapted to reproduce ... generated audio output, said audio having been wirelessly transmitted from said portable audio source *virtually free from interference* from device transmitted signals operating in the portable wireless digital audio system spectrum.” '258 patent col. 7 l. 62—col. 8 l. 47 (Claim 8) (emphasis added). This claim requires that the headphone's audio output be “virtually free from interference.” And the claim names the source of this interference: signals transmitted by other wireless audio transmission devices.

That the claims require a listener's audio enjoyment to be “virtually free from interference” from other wireless-



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