

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

ALEKSANDR L. YUFA,
Plaintiff-Appellant,

v.

TSI, INCORPORATED,
Defendant-Appellee.

2014-1539

Appeal from the United States District Court for the Northern District of California in No. 4:09-cv-01315-KAW, Magistrate Judge Kandis A. Westmore.

Decided: January 26, 2015

ALEKSANDR L. YUFA, of Colton, California, pro se.

BRUCE H. LITTLE, Lindquist & Vennum LLP, of Minneapolis, Minnesota, for defendant-appellee. With him on the brief was CHRISTOPHER R. SULLIVAN.

Before PROST, *Chief Judge*, BRYSON, and WALLACH, *Circuit Judges*.

WALLACH, *Circuit Judge*.

Plaintiff-Appellant Dr. Aleksandr L. Yufa appeals the decision of the United States District Court for the Northern District of California (“district court”) granting summary judgment to Defendant-Appellee TSI Incorporated (“TSI”) on Dr. Yufa’s claim that TSI infringed U.S. Patent No. 6,346,983 (“the ’983 patent”). *See Aleksandr L. Yufa v. TSI Inc.*, CV 09-01315-KAW (N.D. Cal. May 21, 2014) J.A. 2–11 (“Order”). Because the district court properly granted TSI’s motion for summary judgment, this court affirms.

I. BACKGROUND

A. The ’983 Patent

The ’983 patent is directed to the methods and devices for determining air, gas and liquid quality by measuring the quantity and size of airborne particles by utilizing a light beam. Established methods of measuring particles include measuring the light scattered by single particles as they pass through a focused light or laser detecting system.

A light beam is directed at a particular point and individual particles are pulled through the beam. When particles pass through light, it causes the light to scatter. Light detected is output in the form of an analog voltage (amplitude) signal corresponding to the intensity of the light scatter off the particle. Digital signals are generated by comparing the analog voltage to a “reference voltage.” A reference voltage is a predetermined voltage which serves as a point of comparison to amplified detected signals. “The amplified detected signals are compared with the predetermined reference voltages [in order to determine] particle size.” ’983 patent col. 2 ll. 26–28. Instead of a reference voltage, the ’983 patent introduces an apparatus that measures particle size by the duration

of digital form pulse. Independent claim 6 is illustrative and recites:

An apparatus for counting and measuring particles, providing a processing of an output of a *light detecting means*, said apparatus comprises:

a current-voltage conversion means, providing conversion of said output of said light detecting means to voltage value signals, and wherein said output is effectively indicative of a size of said particles;

an amplifying means, providing an amplification of said voltage value signals;

an analog-digital form pulse duration conversion means, providing conversion of each of said voltage value signals to digital form pulses, and wherein each of said digital form pulses has a duration, which is adequate to the duration of an appropriate output of said light detecting means;

a strobe pulse generating means, providing generating of strobe pulses;

a conjunction means, *forming strobe pulse packages* by conjunction of each said digital form pulse and said strobe pulses;

a selecting, sorting and counting means, providing the *selection and sorting of said strobe pulse packages* by an identical quantity of said strobe pulses within each of said strobe pulse packages.

'983 patent col. 14 ll. 16–41 (emphases added to disputed claim language).

B. Reexamination

On March 25, 2009, Dr. Yufa filed a complaint alleging that TSI's predecessor-in-interest, Adams Instruments ("Adams") infringed the '983 patent via sale of

wireless communications products believed to be using technology covered by the '983 patent.. The case was stayed pending an Ex Parte Reexamination of the '983 patent by the United States Patent and Trademark Office ("PTO").

As originally issued, the patent included a total of eight claims. However, the PTO issued a certificate of reexamination ("Reexamination") in which only claims 6–8 of the '983 patent survived. Although claims 6–8 were determined to be patentable, the PTO modified claim 6 to include additional limitations. The modification added the following limitation: "without using a reference voltage to convert each said voltage value signals." Ex Parte Reexamination Certificate to U.S. Patent No. 6.346,983 (Issued Aug. 14, 2012) ("Reexamination Certificate") col. 2 ll. 1–3. In light of this modification, the fourth paragraph of claim 6 now reads:

an analog-digital form pulse duration conversion means, providing conversion of each of said voltage value signals to a digital form pulse [*without using a reference voltage to convert each of said voltage value signals*], wherein each said digital form pulse has a duration, which is adequate to a baseline duration of the appropriate output of said light detecting means;

Reexamination Certificate col. 2 ll. 1–7 (emphasis added to disputed claim language and to reflect modification)

II. THE ACCUSED PRODUCTS

TSI manufactures and sells products used to determine air quality through evaluation of the size of particles in the air. Dr. Yufa claimed TSI's Non-Optical Devices, Pulse Height Detection Devices and Pulse Integration Devices (the "Accused Products") all infringed the '983 patent. Appellant's Br. 2, 7–8.

The Accused Products can be grouped into three categories: (1) Non-Optical Devices count and measure particles by “utilizing diffusion charging of sample particles, followed by detection of the charged aerosol using an electrometer.”¹ J.A. 279–80; (2) “Pulse Height Detection Devices detect the intensity or amount of light scattered off a particle to measure amplitude or ‘height’ of the voltage pulse, and, thereby, to infer particle size,”² *id.*; (3) Pulse Integration Devices “measure particle size by integrating the output signal from the photodetector over a period of time to calculate a pulse ‘area’ instead of pulse amplitude.”³ *Id.* at 280.

On September 18, 2012, Dr. Yusef filed a First Amended Complaint asserting TSI’s product infringed the amended claims. On November 22, 2013, the district court held a claim construction hearing. The claim construction order was issued on February 24, 2014 and TSI filed a motion for summary judgment on December 12, 2013.

¹ Non-Optical Devices include the AEROTRAK Nanoparticle Aerosol Monitor 9000.

² Pulse Height Detection Devices include AEROTRAK Handheld Particle Counters 9303, 9306-01, 9306-02, 9306-V and 8220; AEROTRAK Portable Particle Counters 9110, 9310-01, 9350-01, 9510-01, 9510-01, 8240 and 8260; AEROTRAK Remote Particle Counters 7110, 7201, 7301, 7301-P, 7310, 7501 and 7510; Optical Particle Sizer 3330; DustTrak).

³ Pulse Integration Devices include: AEROTRAK Handheld Particle Counters 9306-03, 9306-04 and 9306-V2; AEROTRAK Portable Particle Counters 9310-2, 9350-02, 9500-1, 9510-2, 9550-02 and 9350-3.

III. DISCUSSION

A. Standard of Review

This court reviews a district court's summary judgment decision under the law of the district court's regional circuit. *Lexion Med., LLC v. Northgate Techs., Inc.*, 641 F.3d 1352, 1358 (Fed. Cir. 2011). Applying the law of the Ninth Circuit, this court reviews the grant of summary judgment de novo. *Cousins v. Lockyer*, 568 F.3d 1063, 1067 (9th Cir. 2009). Summary judgment is appropriate when "the pleadings . . . show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247 (1986); *HCA Health Servs. of Ga., Inc. v. Employers Health Ins. Co.*, 240 F.3d 982, 991 (11th Cir. 2001).

Once the moving party demonstrates the absence of a genuine issue of material fact, "the non-moving party must come forward with 'specific facts showing that there is a *genuine issue for trial*.'" *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (quoting Fed. R. Civ. P. 56(e)) (emphasis included).

"The first step of the infringement analysis is claim construction, a question of law reviewed de novo." *Nazomi Commc'ns, Inc. v. Nokia Corp.*, 739 F.3d 1339, 1343 (Fed. Cir. 2014) (citing *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc)). Claim terms are generally given their ordinary and customary meaning, which "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). A skilled artisan reads the term "in the context of the particular claim in which the disputed claim appears," as well as "in the context of the entire patent, including the specification." *Id.* at 1313.

B. Dr. Yufa Did Not Present Evidence Showing the Accused Products Infringe the '983 Patent

To establish infringement, Dr. Yufa “must prove that the [Accused Products] embod[y] every limitation in the claim, either literally or by a substantial equivalent.” *Conroy v. Reebok Int'l, Ltd.*, 14 F.3d 1570, 1573 (Fed. Cir. 1994) (citation omitted). In granting TSI's summary judgment request, the district court found none of TSI's products met every limitation in claim 6 of the '983 patent and that Dr. Yufa failed to present any evidence that would create a genuine issue of material fact to defeat TSI's motion for summary judgment.

i. Dr. Yufa Did Not Present Evidence Refuting TSI's Claim that the Accused Products Use Reference Voltage to Convert Analog Signals to a Digital Form Pulse

As to TSI's optical devices (Pulse Height Detection Devices and Pulse Integration Devices), TSI concedes that these devices “use a light detecting means to measure and count particle size.” Order at 5 (quoting Def.'s Mot. at 8–9). In support of this assertion, TSI provided the declaration of Ricky Holm, an “Electrical Engineering Manager at TSI with over 20 years of professional experience in research, development and manufacturing of particle measuring equipment.” Order at 5. Holm testified that “[c]laim 6 of the '983 Patent requires a system that converts a light detector's amplified output into a digital signal without comparing the light detector's amplified output to a predetermined reference voltage.” However, all of the TSI's optical devices “use a reference voltage in connection with detecting particles.” J.A. 282. Therefore, TSI asserts its optical device products do not embody every limitation in claim 6. With respect to its Non-Optical Device, Mr. Holm testified that TSI's only accused device (AEROTRAK 9000) “does not use a light detecting

means to count and measure particles.” Order at 5 (quoting Holm Decl. ¶ 14).

The district court credited Mr. Holm’s declaration and held that in response, Dr. Yufa failed to “present any additional evidence beyond his conclusory contention that [the Accused Products] infringe” the ’983 patent. Order at 9. Specifically, the court found Dr. Yufa could not show the Accused Products employed Pulse Width Modulation (“PWM”) to detect particles as opposed to a reference voltage as required by the ’983 patent. The district court also found Dr. Yufa’s “opposition consists almost entirely of conclusory allegations regarding TSI’s credibility, which does not create a genuine issue of material fact.” Order at 9.

On appeal to this court, Dr. Yufa contends “[t]he District Court erred in granting summary judgment on the grounds of non-infringement to TSI.” Appellant’s Br. 37. Specifically, Dr. Yufa argues he “produced and identified at least the TSI’s [sic] interrogatory answer which states that TSI uses [PWM]” rather than a reference voltage. *Id.* at 2. Conversely, TSI contends Dr. Yufa “willfully misreads this statement as an admission.” Appellee’s Br. 16. Moreover, TSI claims it “amended [its] response to deny the use of [PWM] in any of its products.” *Id.*

Dr. Yufa’s argument is related to TSI’s response to the third question in Dr. Yufa’s first set of interrogatories. In response to Dr. Yufa’s question concerning whether the Accused Products use PWM, TSI stated:

TSI objects to the term Pulse Width Modulation as overly broad, vague and ambiguous. Notwithstanding such objections and without waiving any objections, Defendant TSI incorporates by reference its Answer and denies infringement of the ’983 Patent. *To the extent that Defendant TSI uses [PWM] in any of its products, it does so in a manner that does not infringe the ’983 patent.*

J.A. 214–15 (emphasis added).

Dr. Yufa argues the above response is an admission by TSI that its products use PWM. This court finds the response by TSI does not constitute an admission. Rather, it is a hypothetical reply that merely serves to address TSI's stance on whether its products infringe the '983 patent. Thus, Dr. Yufa cannot employ TSI's response to interrogatory No. 3 as illustrative of an admission.

Dr. Yufa next argues the district court erred in granting summary judgment to TSI on the ground that the Accused Products use a reference voltage to convert the analog signal to a digital form pulse. Dr. Yufa contends the court erred in granting the judgment because "TSI asserts that [its] Optical Devices use a reference voltage only for indication of a pulse presence, but not for conversion." Appellant's Br. 56–57. Here, Dr. Yufa claims that TSI, via Mr. Holm's declaration, establishes inconsistencies regarding whether its optical devices use a PWM. *Id.* at 57. Specifically, Dr. Yufa cites the district court's order stating: "[TSI] has provided evidence that each of the particle counters used in connection with the [Accused Products] uses a reference voltage to convert analog particle signals into digital form pulses, and, therefore, do not embody a limitation of the '983 Patent." Order at 8. Dr. Yufa compares the aforementioned statement to one where the district court states:

TSI asserts that all of its remaining accused Pulse Integration Devices use pulse area to size particles instead of pulse amplitude. These products use a "reference threshold" to prevent false indications of a particle, and, therefore, only "indicate the presence of a pulse if the voltage signal exceeds the reference threshold value."

Order at 7 (quoting Holm Decl. at 19) (citations omitted)

Dr. Yufa contends the two above statements are contradictory and therefore create a “genuine issue of material fact in regards to whether the accused products operate without the use of a reference voltage.” Appellant’s Br. 58.

To the extent Dr. Yufa contends the second quotation supports the fact that a reference voltage is used *only* to indicate the presence of a pulse as opposed to being used to convert analog particle signals into digital form pulses, this court does not agree. The fact the second assertion by Mr. Holm, unlike the first, does not expressly state the particle counters in the Accused Products use a reference voltage to convert analog particle signals into digital form pulses is not indicative of the fact that it does not. TSI, via the declaration of Mr. Holm, has consistently claimed its optical devices use a reference voltage in converting analog particle signals into digital form pulses and Dr. Yufa has not presented any evidence to the contrary.

In order to survive a motion for summary judgment after the moving party has presented evidence that the Accused Products do not meet the claim limitations of the ’983 patent, the non-moving party must go beyond the pleadings and identify specific facts “showing that there is a genuine issue for trial.” *Matsushita Electric Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586–87 (1986) (quoting Fed. R. Civ. P. 56(e))

Here, Dr. Yufa urges this court to find the optical devices do not use such a method merely because TSI failed to reference such use in a particular instance. Because this court does not find the two assertions by Mr. Holm referenced in the district court’s order to be contradictory, they do not create a genuine issue of material fact to defeat TSI’s motion for summary judgment.

- ii. The Schematic Diagram Timer Presented by Dr. Yufa Cannot Be Addressed Because He Failed to Present it to the District Court

Dr. Yufa again argues that the Accused Products do not use a reference voltage by submitting TSI's Schematic Diagram-Timer, Model 3800 ATOFMS ("Schematic Diagram"). Dr. Yufa argues that TSI's PWM, as illustrated in the Schematic Diagram "provide the conversion of the voltage value (analog) signals to a digital form pulses without the use of reference voltage." Appellant's Br. 57. TSI counters Dr. Yufa did not present this argument to the district court, nor did he present the schematic diagram as part of his evidence in his opposition to TSI's motion for summary judgment. Appellee's Br. 14.

The Schematic Diagram represents a new and entirely different ground in support of Dr. Yufa's contention that TSI's products use PWM rather than a reference voltage to convert analog particle signals into digital form pulses. However, "it is the general rule . . . that a federal appellate court does not consider an issue not passed upon below." *Singleton v. Wulff*, 428 U.S. 106, 120 (1976). "[This court's] precedent counsels against entertaining arguments not presented to the district court." *Golden Bridge Tech., Inc. v. Nokia, Inc.*, 527 F.3d 1318, 1322 (Fed. Cir. 2008). Thus, "this court does not 'review' that which was not presented to the district court." *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1426 (Fed. Cir. 1997).

However, in *Forshey v. Principi*, 284 F.3d 1335 (2002) this court articulated a set of circumstances in which hearing arguments for the first time is appropriate: (1) "[w]hen new legislation is passed while an appeal is pending, courts have an obligation to apply the new law if Congress intended retroactive application even though the issue was not decided or raised below," *id.* at 1355; (2) "when there is a change in the jurisprudence of the reviewing court or the Supreme Court after consideration of the case by the lower court," *id.* at 1356; (3) "appellate courts may apply the correct law even if the parties did not argue it below and the court below did not decide it,

but only if an issue is properly before the court,” *id.*; (4) “where a party appeared pro se before the lower court, a court of appeals may appropriately be less stringent in requiring that the issue have been raised explicitly below,” *id.* at 1357.

Dr. Yufa did not present the Schematic Diagram before the district court. However, this court finds that Dr. Yufa fits the fourth category in *Forshey* because he was a pro se party appearing before the district court. Although *Forshey* permits this court to be less stringent in requiring the issue to be expressly presented to the district court, this court finds that even under a less stringent approach, Dr. Yufa cannot now raise this argument.

Here, Dr. Yufa concedes TSI presented him the Schematic Diagram during his inspection of TSI’s products in July 2013. However, TSI did not file its motion for summary judgment to the district court until December 12 2013. Moreover, Dr. Yufa filed his opposition on December 23, 2013. *Id.* Thus, Dr. Yufa had the requisite time and opportunity to present this argument to the district court. Additionally, Dr. Yufa has not presented any extenuating or limiting circumstance that impeded his ability to present this diagram to the district court. Therefore, by not presenting this argument before the district court, Dr. Yufa has waived this argument.

iii. Exhibits H and I Do Not Support the Claim that TSI’s Accused Products Use PWM

Finally, Dr. Yufa argues that “Exhibits H and I in [his] First Amended Complaint . . . disclose [] TSI’s use of the pulse duration (width) in [] TSI’s products for particle size determination.” Appellant’s Br. 23. Exhibit H is titled “Introduction To Interfaces Used In Facility Monitoring Systems.” *Id.* at 23–24. As stated by the district court, “Exhibit H is a document of unknown authorship . . . which contains an overview of many different components, including [PWM], and broadly cites to internet

sources.” Order at 8. Exhibit I is a TSI document titled “Facility Monitoring Systems Design Recommendations” detailing “larger system networking, including the use of a local network and IP addresses.” *Id.*

As the district court found, these documents are not sufficient to create a genuine issue of material fact. *Id.* at 8. For example, Exhibit H does not specifically identify TSI or its products and it is devoid of any evidence suggesting the Accused Products employ PWM as opposed to a reference voltage.

With respect to Exhibit I, Dr. Yufa asserts “TSI’s [Facility Monitoring Systems] describes the [PWM] and provide[s] in those Pulse Width Modulators ‘. . . encod[ing] an analogue value as a digital pulse where the on time is proportional to the value.’” Appellant’s Br. 24 (quoting A122 ¶ 1). Although Exhibit I references remote particle counters, it does not refer to PWM or provide any support for Dr. Yufa’s contention that the Accused Products detect particles without a reference voltage. Rather, it merely represents conclusory allegations not grounded in actual facts to support Dr. Yufa’s claim.

Dr. Yufa has not presented sufficient evidence to support the claim that the Accused Products use PWM as opposed to a reference voltage. Because Exhibits H and I do not constitute sufficient evidence to show the Accused Products infringe the ’983 patent, this court finds the Exhibits are insufficient to create a genuine issue of material fact to defeat TSI’s motion for summary judgment. *See Matsushita Electric* 475 U.S. at 586–87 n.11 (1986) (quoting Fed. R. Civ. P. 56(e)) (“When a motion for summary judgment is made . . . an adverse party . . . must set forth specific facts showing that there is a genuine issue for trial. If he does not so respond, summary judgment . . . shall be entered against him.”).

CONCLUSION

For the foregoing reasons, this court affirms the district court's grant of summary judgment to TSI.

AFFIRMED

COSTS

On August 14, 2014, the district court granted in part and denied in part “[TSI’s] motion for attorneys’ fees and non-taxable costs, and award[ed] TSI attorneys’ fees in the amount of \$154,702.75 and non-taxable costs in the amount of \$4,343.05 for work performed between September 9, 2013, and March 7, 2014.” J.A. 433. The district court subsequently amended its summary judgment order to reflect the imposition of attorneys’ fees and costs on Dr. Yufa (“The Judgment dated May 22, 2014 (DKT# 177) is *hereby amended*.”). J.A. 395 (emphasis added).

Here, Dr. Yufa’s opening brief did not raise any issue regarding the district court’s allocation of attorneys’ fees and costs. Dr. Yufa contends “the District Court on September 3, 2014 entered a separate Judgment (Doc. 205) awarding TSI with the attorneys’ fees and costs, but not an amended judgment ‘to include’ the attorneys’ fees and costs in the non-infringement Judgment.” Reply at 12. This assertion is incorrect. As explained above, the district court “amended” its Order granting TSI’s summary judgment motion in order to reflect the imposition of costs on Dr. Yufa. Therefore, even if Dr. Yufa timely presented this argument before this court, it would have been denied. However, this court’s “law is well established that arguments not raised in the opening brief are waived”. *See SSL Servs., LLC v. Citrix Sys., Inc.*, 769 F.3d 1073, 1085 (Fed. Cir. 2014) (quoting *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1319) (Fed. Cir. 2006). Therefore, because Dr. Yufa did not raise this issue in his opening brief, Dr. Yufa has waived this argument.